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CONFERENZA DELLE REGIONI E
DELLE PROVINCE AUTONOME



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MICROZONAZIONE SISMICA

Indagini MS2

Regione Toscana

Comune di Livorno



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| Comune di Livorno | Soggetto realizzatore: Geologica Toscana Snc Regione Toscana Servizio Sismico Regionale | Data: 15.02.2019 |
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§ 1) INTRODUZIONE

1.1) Premessa

Il presente documento riferisce sulle prove geofisiche, di tipo sismico attivo e passivo, e sulle indagini geognostiche CPTU realizzate per lo studio di Microzonazione Sismica di Secondo Livello condotto in corrispondenza delle aree definite in fase preliminare tra Servizio Urbanistica del Comune di Livorno, Servizio di Prevenzione Sismica della Regione Toscana e Geologica Toscana snc corrispondenti ad una integrazione adeguata delle aree dei centri abitati.

Lo studio di microzonazione sismica (MS) di livello 2 rappresenta il livello propedeutico a successivi studi di MS (livello 3) e consiste in una raccolta organica e ragionata dei dati di natura geologica, geofisica e geotecnica preesistenti e/o acquisiti al fine di suddividere il territorio comunale in microzone qualitativamente omogenee dal punto di vista del comportamento sismico e quindi attribuirgli dei coefficienti di amplificazione.

Tale approfondimento è finalizzato alla realizzazione della Carta delle Microzone Omogenee in Prospettiva Sismica (MOPS) ed in particolare alla Carta di Microzonazione Sismica, oltre agli elaborati propedeutici come la Carta delle Frequenze di Sito, la Carta delle Indagini e la Carta Geologico – Tecnica, eseguite con la finalità di guidare le scelte pianificatorie, nell’ottica di perseguire ed assicurare la riduzione del rischio sismico, evidenziando le criticità e identificando le aree per le quali sono richiesti studi di approfondimento.

1.2) Contesto

Le indagini geofisiche e geognostiche integrate, sono state eseguite all’interno del territorio del Comune di Livorno come concordato con il Servizio Sismico Regionale.

Si rimanda alla Carta delle Indagini per l’inquadramento delle prove eseguite nel territorio comunale.

1.3) Scopo delle indagini

La caratterizzazione sismica - dinamica del terreno, è stata eseguita attraverso prove geofisiche e geognostiche integrate e complementari fra loro, di cui:

- *Sismica a rifrazione con onde P ed onde SH, con restituzione secondo tecniche di analisi a rifrazione classica e tomografica, delle velocità Vp e Vs nel sottosuolo;*
- *Prove MASW (Multistation Analysis of Surface Waves), per la determinazione di profili di velocità Vs nel sottosuolo, che hanno permesso di ottenere la classificazione del sottosuolo ai sensi della vigente normativa NCT 2018 "Aggiornamento delle Norme Tecniche per le Costruzioni DM 14/01/2008";*
- *Prove ESAC (Extended Spatial AutoCorrelation) per determinazione di profili di velocità Vs nel sottosuolo e per eseguire l'analisi congiunta con le prospezioni MASW;*
- *Prospezioni geofisiche con acquisizione ed analisi dei microtremori (HVSr), e con processo di inversione e interpretazione secondo la metodologia di analisi del rapporto spettrale H/V o di Nakamura, per determinare l'eventuale comportamento amplificativo del terreno;*
- *Prove penetrometriche statiche con piezocono (CPTU) per l'individuazione delle eventuali aree a rischio liquefazione.*

1.4) Scelta delle zone oggetto delle indagini

Le indagini sono state effettuate nel comprensorio del Comune di Livorno e in particolare sono state suddivise come segue:

- *Sismica a rifrazione con onde P ed onde SH:*

2 sismiche in onde P e SH – Eseguite in zone di margine della valle alluvionale dove dalla carta geologica era evidenziato un basso spessore delle coperture rispetto al sottostante substrato.

- *MASW + ESAC:*

6 sismiche *MASW+ESAC* – Eseguite generalmente all'interno della valle alluvionale per aumentare la profondità di ricerca e quindi per avere profili di velocità più completi.

- *MASW:*

10 sismiche *MASW* – Eseguite per l'acquisizione di profili di velocità delle onde S in zone generalmente scovre da tali indicazioni.

- *HVSR:*

45 punti di misura *HVSR* ubicati in maniera omogenea e ragionata in modo da coprire buona parte del territorio analizzato.

- *CPTU:*

8 prove penetrometriche *CPTU* – Eseguite nella parte nord del territorio comunale per investigare la probabilità di liquefazione e per l'acquisizione di dati geotecnici sui sedimenti della piana di Livorno.

1.5) Descrizione dei contenuti della relazione

La presente relazione illustrerà la metodologia di acquisizione, la strumentazione utilizzata, le tecniche e le modalità di inversione/interpretazione, oltre ad evidenziare i risultati ottenuti con la campagna di prospezione geofisica sismica integrata, a supporto della caratterizzazione sismica del sottosuolo relativamente alle diverse aree di indagine.

Dopo un quadro descrittivo delle tecniche di indagine, riportate nel Capitolo 2 ("Caratterizzazione sismica e geognostica"), si riportano le modalità di interpretazione e analisi dei dati acquisiti ed i risultati, di cui al Capitolo 3 ("Elaborazione dati e risultati").

Il documento è poi completato con un allegato contenente: - ALLEGATI GRAFICI, in cui sono riportati in dettaglio i dati acquisiti, la loro elaborazione ed i risultati ottenuti.

§ 2) CARATTERIZZAZIONE SISMICA E GEOGNOSTICA

Ai fini di una completa caratterizzazione sismica delle aree oggetto di indagine, i dati sono stati acquisiti secondo modalità che hanno permesso l'inversione ed interpretazione sequenziale e correlata, secondo diverse tecniche di cui:

1. Sismica a rifrazione e tomografia sismica con restituzione di sismostrati secondo metodi classici di elaborazione a rifrazione, Plus-Minus, Wavefront e CMP "Intercept Time Refraction", e profilo tomografico 2D delle onde di taglio SH;
2. Tecnica MASW (Multichannel Analysis of Surface Waves) che è una derivazione delle tecniche SASW (Spectral Analysis of Surface Waves) che si basano sull'elaborazione delle proprietà spettrali delle onde di superficie per la costruzione di un modello monodimensionale verticale di velocità di propagazione delle onde di taglio Vs;
3. Tecnica ESAC (Extended Spatial AutoCorrelation method) è una generalizzazione del metodo ReMi finalizzata alla determinazione delle velocità di propagazione delle onde superficiali presenti nel campo delle vibrazioni ambientali alle varie frequenze;
4. Acquisizione ed analisi dei microtremiti, con processo di inversione e interpretazione secondo la metodologia di analisi del rapporto spettrale H/V o di Nakamura, per la classificazione del sottosuolo ai sensi della vigente normativa, NTC 2008, e determinare l'eventuale comportamento amplificativo del terreno.

2.1) Sismica a rifrazione

Le onde elastiche provocate da una vibrazione si trasmettono nel suolo con velocità differenti per ogni litotipo, per cui nella prospezione sismica a rifrazione, si sfrutta la diversa velocità di propagazione delle onde longitudinali (onde P o "di compressione e dilatazione") o trasversali (onde SH o "di taglio") per determinare spessori e andamento dei livelli presenti.

La tecnica di indagine consiste nel generare un'onda sismica di compressione o di taglio nel terreno attraverso una determinata sorgente di energia (colpo di mazza o di maglio, esplosivo etc.) e nel misurare il tempo impiegato da detta onda a compiere il percorso nel sottosuolo dal punto di energizzazione fino ai sensori di rilevazione (geofoni) secondo le leggi di rifrazione dell'ottica (Legge di Snell), nel rifrangersi sulle superfici di separazione tra due strati sovrapposti di densità (o meglio di modulo elastico) crescente.

La rifrazione si basa sull'analisi, secondo diversi modelli dei primi arrivi rispetto a geofoni posti a distanze diverse dalla sorgente energizzante, per ricostruire una serie di curve tempo-distanza (dromocrone).

Attraverso metodi analitici si ricavano quindi le velocità delle onde elastiche longitudinali (V_p) o trasversali (V_s) dei mezzi attraversati ed il loro spessore.

La velocità di propagazione delle onde elastiche nel suolo è compresa tra larghi limiti.

Per lo stesso tipo di materiale, può variare in funzione di numerosi parametri quali il grado di alterazione, di fessurazione e/o di fratturazione per i materiali litoidi, ed in funzione dello stato di consistenza/addensamento, grado di saturazione, per i materiali granulari e fini.

Sensibili differenze si possono avere, anche con riferimento all'assetto morfologico rispetto alle velocità rilevate lungo i piani di strato e quelle rilevate perpendicolarmente a questi.

Inoltre la velocità delle onde P compressionali, rispetto alle SH trasversali, è fortemente influenzata dalla presenza di eventuale acquifero e/o dal grado di saturazione.

Questo comporta che anche litotipi differenti possano avere uguali velocità delle onde sismiche compressionali (ad esempio roccia fortemente fratturata e materiale detritico saturo con velocità V_p dell'ordine di 1400÷1700 m/sec), per cui non necessariamente l'interpretazione sismostratigrafica corrisponderà con la reale situazione geologico - stratigrafica.

2.2) Tomografia sismica in onde P e SH

La tomografia sismica, per raggi diretti, è una tecnica d'indagine che permette l'individuazione di anomalie nella velocità di propagazione delle onde sismiche con un potere risolutivo nettamente superiore ad altri metodi, offrendo la possibilità della ricostruzione, con elevato grado di qualità, di anomalie stratigrafiche anche particolarmente complesse non risolvibili con differenti tecniche d'indagine.

Per la realizzazione di immagini tomografiche è necessario utilizzare un maggior numero di sorgenti di energizzazione e di punti di ricezione delle onde sismiche, che permettano una distribuzione dei raggi sismici omogenea e con una densità che viene predefinita in funzione del "target" da raggiungere.

Le tecniche operative possono essere molto diverse, si può infatti operare:

- a livello del piano di campagna disponendo i ricevitori (geofoni) ed i trasmettitori (punti di scoppio) su linee parallele;
- utilizzando due fori, residui di sondaggi geognostici, (tomografia cross-hole), dove, previo opportuno condizionamento, si alloggiano i ricevitori ed i trasmettitori;
- utilizzando un solo foro (sondaggio sismico tomografico), in cui sono alloggiati i ricevitori, eseguendo una serie di tiri a distanze crescenti dall'imboccatura del foro stesso.

Per il trattamento dei dati per la ricostruzione tomografica dell'immagine si utilizza una suddivisione dell'area di studio in celle elementari, calcolando per ciascuna di queste un valore di velocità congruente con il tempo di tragitto medio relativo ai percorsi dei raggi sismici che le attraversano; la presentazione delle elaborazioni eseguite dà come risultato una mappa della distribuzione delle velocità sismiche in una sezione piana contenente le sorgenti ed i geofoni.

Le classiche prospezioni sismiche si basano sul concetto che le onde acustiche si propagano nei diversi mezzi con velocità differenti.

Generando tali onde in un punto (detto di scoppio) e osservando i loro tempi di arrivo in altri punti predeterminati (detti di registrazione), è possibile ricostruire la distribuzione di velocità e con questa definire dal punto di vista elastico le aree oggetto di studio e individuare anomalie o corpi anomali.

L'applicazione della tecnica tomografica alle misure sismiche permette poi di ricostruire l'andamento di tale caratteristica fisica all'interno di una porzione di spazio non accessibile direttamente e di ottenere come risultati, immagini che visualizzano le non omogeneità incontrate nel mezzo.

Il risultato finale sarà la rappresentazione delle velocità (in m/s) per piani, secondo una scala cromatica prefissata, che in genere va dal magenta (basse velocità) al blu (alte velocità).

Quanto più il mezzo attraversato è rigido e incompressibile, tanto maggiore sarà la sua velocità caratteristica.

Valori bassi della velocità mettono in evidenza la variazione negativa delle caratteristiche elastiche e meccaniche, indicando la presenza di un possibile deterioramento della struttura interna.

2.2.1 Strumentazione per sismica a rifrazione e tecnica tomografica

Le misure sono state effettuate con strumento combinato PASI MOD.16SG24-N corredato da 24 geofoni a 10 Hz ad asse verticale per le acquisizioni in onde P e 24 geofoni a 10 Hz ad asse orizzontale per le acquisizioni in onde SH.

I geofoni verticali e orizzontali sono stati posizionati in corrispondenza della medesima progressiva metrica.

I profili sismici sono stati eseguiti a mezzo di energizzazione artificiale del terreno, battendo una mazza da 11 Kg su una piastra in alluminio tramite un argano artigianale.

Sono state scelte nove posizioni di battuta, due esterne sinistre, cinque centrali e due esterne destre così come previsto dalle linee guida VEL della Regione Toscana.

2.3) Tecnica MASW

Il principio ispiratore della tecnica MASW è il carattere dispersivo delle onde di Rayleigh e di Love quando queste si propagano in un mezzo stratificato.

La dispersione consiste nella variazione della velocità di fase a diverse frequenze, con l'aumento della lunghezza d'onda (abbassamento di frequenza) la profondità coinvolta dalla propagazione dell'onda è via via maggiore.

È quindi possibile, impiegando onde di un certo intervallo di frequenza, caratterizzare le proprietà acustiche dei terreni sino ad una certa profondità.

Nella maggior parte delle indagini sismiche per le quali si utilizzano le onde compressive, più di due terzi dell'energia sismica totale generata viene trasmessa nella forma di onde di Rayleigh, la componente principale delle onde superficiali.

Ipotizzando una variazione di velocità dei terreni in senso verticale, ciascuna componente di frequenza dell'onda superficiale ha una diversa velocità di propagazione (chiamata velocità di fase) che, a sua volta, corrisponde ad una diversa lunghezza d'onda per ciascuna frequenza che si propaga.

Questa proprietà si chiama dispersione.

Sebbene le onde superficiali siano considerate rumore per le indagini sismiche che utilizzano le onde di corpo (riflessione e rifrazione), la loro proprietà dispersiva può essere utilizzata per studiare le proprietà elastiche dei terreni superficiali.

La costruzione di un profilo verticale di velocità delle onde di taglio (V_s), ottenuto dall'analisi delle onde piane della modalità fondamentale delle onde di Rayleigh è una delle pratiche più comuni per utilizzare le proprietà dispersive delle onde superficiali.

Questo tipo di analisi fornisce i parametri fondamentali comunemente utilizzati per valutare la rigidità superficiale, una proprietà critica per molti studi geotecnici.

L'intero processo comprende tre passi successivi:

- L'acquisizione delle onde superficiali (ground roll);
- la costruzione di una curva di dispersione (dal grafico della velocità di fase rispetto alla frequenza);
- l'inversione della curva di dispersione per ottenere il profilo verticale delle V_s .

Per ottenere un profilo V_s bisogna produrre un treno d'onde superficiali a banda larga e registrarlo minimizzando il rumore.

Una molteplicità di tecniche diverse sono state utilizzate nel tempo per ricavare l'inversione dello spettro di velocità così prodotto, ciascuna con i suoi vantaggi e svantaggi, in quanto l'inversione di tale spettro viene realizzata iterativamente, utilizzandolo come riferimento sia per la modellazione diretta che per la procedura ai minimi quadrati.

I valori preliminari per il rapporto di Poisson e per la densità sono necessari per ottenere il profilo verticale Vs e vengono solitamente stimati utilizzando misure prese in loco o valutando le tipologie dei materiali.

Le onde superficiali riverberate (back scattered) possono essere prevalenti in un sismogramma multicanale, se in prossimità delle misure sono presenti discontinuità orizzontali quali fondazioni e muri di contenimento.

Le ampiezze relative di ciascuna tipologia di rumore generalmente cambiano con la frequenza e la distanza dalla sorgente.

Ciascun rumore, inoltre, ha diverse velocità e proprietà di attenuazione che possono essere identificate sulla registrazione multicanale grazie all'utilizzo di modelli di coerenza e in base ai tempi di arrivo e all'ampiezza di ciascuno.

La scomposizione di un campo di onde registrate in un formato a frequenza variabile consente l'identificazione della maggior parte del rumore, analizzando la fase e la frequenza in funzione della distanza dalla sorgente.

La scomposizione può essere quindi utilizzata in associazione con la registrazione multicanale per minimizzare il rumore durante l'acquisizione.

La scelta dei parametri di elaborazione così come del miglior intervallo di frequenza per il calcolo della velocità di fase, può essere fatto con maggior accuratezza utilizzando dei sismogrammi multicanale.

Una volta scomposto il sismogramma, un'opportuna misura di coerenza applicata nel tempo e nel dominio della frequenza può essere utilizzata per calcolare la velocità di fase rispetto alla frequenza.

La velocità di fase e la frequenza sono le due variabili ($x; y$), il cui legame costituisce lo spettro di velocità.

E' anche possibile determinare l'accuratezza del calcolo analizzando la pendenza lineare di ciascuna componente di frequenza delle onde superficiali in un singolo sismogramma.

In questo caso la prova MASW permette la miglior registrazione e separazione ad ampia banda ed elevati rapporti S/N.

Un buon rapporto S/N assicura accuratezza nel calcolo dello spettro di velocità, mentre l'ampiezza di banda migliora la risoluzione e la possibile profondità di indagine del profilo Vs.

Le onde di superficie sono facilmente generate da una sorgente sismica quale, ad esempio, una mazza battente.

In particolare l'analisi MASW è stata realizzata con il seguente tipo di acquisizione:

- acquisizione ZVF ossia con energizzazione verticale e acquisizione con geofoni verticali per l'analisi MASW della componente verticale delle onde di Rayleigh.

2.3.1 Strumentazione per sismica MASW

Le misure MASW sono state effettuate con strumento combinato PASI MOD.16SG24-N corredato da 12 geofoni a 4,5 Hz.

I profili sismici sono stati eseguiti energizzando artificialmente il terreno e registrando le vibrazioni prodotte mediante captatori, denominati geofoni, collegati ad un ricevitore (sismografo) attraverso un cavo multipolare.

I 12 geofoni, con frequenza minima di soglia di 4,5 Hz, sono stati posizionati ad una distanza definita l'uno dall'altro così da coprire una distanza orizzontale predeterminata.

L'energizzazione è avvenuta battendo una mazza da 11 Kg su una piastra in alluminio; al momento della battuta vengono generate artificialmente onde sismiche nel terreno ed ha inizio la registrazione (trigger) con campionamento costante e predeterminato del segnale da parte dei geofoni.

Per ogni scoppio abbiamo utilizzato la metodologia dello stacking che consiste nel ripetere più volte le misurazioni al fine di amplificare l'ampiezza del segnale sismico ed ottenere quindi sismogrammi di più facile lettura.

Eseguita la prima acquisizione è stato allontanato il punto di scoppio pari alla metà della distanza tra il primo scoppio e il primo geofono e ripetute le operazioni di registrazione.

Questa operazione permette di avere sismogrammi a 24 tracce con soli 12 geofoni.

2.4) Metodo ESAC

Si tratta di una procedura sperimentale per la determinazione del profilo di velocità delle onde S nel sottosuolo a partire da misure di vibrazioni ambientali condotte con geofoni verticali posizionati con una geometria conosciuta (antenna sismica o seismic array).

In particolare, la procedura è finalizzata alla determinazione delle velocità di propagazione delle onde superficiali presenti nel campo delle vibrazioni ambientali alle varie frequenze di vibrazione (“spettro di velocità”).

Questa informazione verrà poi utilizzata all’interno di una procedura di inversione per dedurre il profilo di velocità delle onde S nel sottosuolo nell’ipotesi che questo sia costituito da una pila di strati orizzontali sovrapposti ed omogenei al loro interno.

Il metodo ESAC (Extended Spectral AutoCorrelation method) è frutto di una idea sviluppata inizialmente da Aki (1957).

Secondo Aki, il campo d’onda delle vibrazioni ambientali può essere rappresentato come la combinazione lineare di onde piane di diverse frequenze e con fase ed ampiezza casuale che si muovono sul piano orizzontale e che provengono da direzioni differenti.

Aki dimostrò che, sebbene ogni serie temporale dedotta dalla registrazione di questo campo d’onde in un punto abbia un carattere stocastico, due registrazioni effettuate in punti diversi mostrino delle “somiglianze” (in senso statistico) e che da queste sia possibile dedurre informazioni sulle velocità di fase delle diverse onde misurate nelle due posizioni.

Queste somiglianze sono rivelate dall’andamento di una funzione di correlazione.

Dato che la stima della correlazione fra le due serie di registrazioni è effettuata senza tenere conto di alcuno sfasamento temporale, la funzione è detta di autocorrelazione.

Aki dimostrò che sotto condizioni molto generali (in particolare che le onde siano tutte fra loro indipendenti e che le direzioni di provenienza siano distribuite con probabilità uniforme attorno ai due geofoni) la funzione di autocorrelazione relativa alla componente verticale delle vibrazioni misurate in due posizioni ha la forma di una funzione di Bessel di ordine 0 e dipende solo dalla loro distanza relativa.

Per una data frequenza vengono calcolate le diverse funzioni di autocorrelazione per tutte le distanze relative alle diverse coppie di sensori.

La velocità di fase viene determinata in modo da riprodurre al meglio l’andamento osservato della funzione di correlazione in funzione della distanza Δr .

2.4.1 Strumentazione per sismica ESAC

I dati sono stati acquisiti con strumento combinato PASI MOD.16SG24-N corredato da 12 geofoni verticali a 4,5 Hz disposti ad L o comunque combinazioni molto simili, con lunghezza di acquisizione poco superiore ai venticinque minuti.

Le distanze tra i vari geofoni sono state scelte variabili per avere la massima correlazione tra le varie coppie di geofoni e per essere sicuri di avere la massima penetrazione possibile se in presenza di una coltre alterata di copertura.

2.5) Caratterizzazione sismica con microtremori - HVSr o Nakamura

Il metodo dei rapporti spettrali H/V (rapporto fra gli spettri di ampiezza delle componenti orizzontali rispetto a quelle verticali del moto del suolo) o metodo di Nakamura (Nakamura, 1989) è stato utilizzato in modo intensivo per stimare le frequenze di risonanza del sito in esame.

Esso è stato applicato in diversi campi d'indagine, quali la zonazione sismica in aree urbane (Lachet et al., 1996), lo studio dei bacini sedimentari (Al Yuncha & Luzon, 2000) e lo studio delle frequenze di risonanza delle strutture abitative (Mucciarelli & Monachesi, 1998; Mucciarelli et al., 2001; Nakamura et al., 2000).

L'ampio uso di tale metodologia ha evidenziato nelle diverse applicazioni numerosi punti di dibattito nell'ambito della comunità scientifica.

L'aspetto comune che può essere dedotto dai lavori presenti in letteratura è che la tecnica di Nakamura è in grado di stimare la frequenza di risonanza del sito in esame ma non è affidabile per la stima assoluta dell'amplificazione del moto del suolo (Mucciarelli et al., 2001).

Inoltre i numerosi lavori riguardanti l'applicazione del metodo H/V offrono spiegazioni non univoche circa alcune importanti assunzioni del metodo, quali la composizione del campo d'onda analizzato, le condizioni di registrazione del rumore sismico e la procedura di "pre - processing" dei dati di rumore.

Per l'utilizzo di tale metodo si assume che gli strati soffici siano piani e paralleli e che la componente verticale del moto non subisca amplificazioni all'interfaccia substrato sismico - strato soffice.

2.5.1 Strumentazione per microtremori

I dati sono stati acquisiti tramite un tromografo a 4,5 Hz scegliendo 45 postazioni di misura all'interno delle aree da analizzare e misurando per ognuna di esse i microtremori per un tempo minimo di 20 minuti.

Dopo aver posizionato il tromografo in piano e allineato i suoi assi orizzontali con le direzioni nord - sud e est - ovest, abbiamo scelto come frequenza di campionamento 300 Hz.

2.6) Prove penetrometriche statiche con piezocono (CPTU)

Le prove penetrometriche statiche sono standardizzate nella norma n° 3.441 ASTM e comprese nelle raccomandazioni Issmafe (1976), nonché AGI, per l'esecuzione delle indagini geotecniche (1977).

Le prove penetrometriche statiche sono state eseguite con un penetrometro statico olandese superpesante di tipo Pagani da 10 tonnellate.

La prova base consiste nell'infiggere nel terreno una particolare punta articolata e nel misurare la resistenza che essa incontra alla penetrazione.

Le caratteristiche della punta sono:

- *area di base della punta 10 cmq;*
- *superficie laterale friction 150 cmq.*

La spinta viene fornita da un'apparecchiatura idraulica ed è trasmessa alla punta mediante una batteria di aste cave nel cui interno scorrono aste più piccole.

La prova consiste nel far penetrare verticalmente nel terreno la punta attraverso la batteria di aste.

- 1) *scende solo la punta delle astine interne;*
- 2) *scende la punta ed un corto manicotto spinti dalle astine interne;*
- 3) *scende tutta la batteria fino a quando la punta e il manicotto tornano in battuta sull'involucro esterno delle aste e raggiungono la nuova quota di inizio misura.*

Nella fase 1 viene misurata la resistenza alla punta (Q_c) relativa alla pressione di rottura del terreno a quella profondità, ottenuta dividendo la forza di spinta per l'area di punta.

Nella fase 2 si misura invece la resistenza laterale (F_s), cioè l'attrito acciaio/terreno, ottenuta dividendo la spinta esercitata, e depurata di quella misurata nella fase 1, per l'area della superficie laterale del manicotto.

Nella fase 3 viene misurata la resistenza totale all'avanzamento: tale dato tiene conto dell'attrito che si esercita su tutta la batteria.

Le letture elaborate sono presentate sotto forma di profili penetrometrici continui e sono diagrammate in funzione della profondità; i parametri forniti sono:

- resistenza alla punta (Q_c);
- resistenza laterale (F_s);
- resistenza alla punta totale (Q_t);
- natura litologica;
- peso di volume;
- coesione non drenata C_u (per la parte coesiva del sottosuolo);
- angolo d'attrito interno Φ (per la parte incoerente del sottosuolo);
- modulo edometrico M_o .

La prova penetrometrica statica con piezocono viene eseguita come la prova penetrometrica statica sopra descritta.

La differenza sostanziale la fa la grande precisione della prova nella lettura di tutti i parametri geotecnici (ogni cm di infissione) e delle pressioni interstiziali.

Le 8 prove sono state spinte o fino a 15 metri o a rifiuto strumentale.

§ 3) ELABORAZIONE DATI E RISULTATI

3.1) Elaborazione dei dati sismici con metodo a rifrazione

Le tracce acquisite sono state opportunamente filtrate utilizzando il programma Pickwin 3.14 della OYO Corporation: in particolare è stato eseguito un filtraggio passa basso (250 Hz) per eliminare le componenti in alta frequenza; quindi sono state inserite le coordinate di ogni geofono rispetto all'origine di riferimento.

Visualizzate le tracce dei 24 geofoni abbiamo effettuato, con l'ausilio del software sopra menzionato, il picking dei primi arrivi delle onde P ed SH per ciascuno dei 9 scoppi.

I dati relativi ai tempi dei primi arrivi delle onde P ed SH a ciascun geofono e le relative distanze dei geofoni dai punti di scoppio sono poi stati utilizzati per tracciare le traveltimes su grafici distanza/tempo.

Lanciato il programma Plotrefa_ee 2.73 della OYO Corporation, abbiamo inserito i dati topografici del profilo investigato e dopo la scelta del tipo di interpretazione da utilizzare (metodo G.R.M. – Time Term) sono state scelte le porzioni di traveltimes a eguale velocità.

Infine il software visualizza l'ipotetica sezione invertita in base alle scelte sopra effettuate.

3.2) Elaborazione dei dati sismici con tecnica tomografica

Le tracce acquisite sono state opportunamente filtrate utilizzando il programma Pickwin 3.14 della OYO Corporation: in particolare è stato eseguito un filtraggio passa basso (250 Hz) per eliminare le componenti in alta frequenza; quindi sono state inserite le coordinate di ogni geofono rispetto all'origine di riferimento.

Visualizzate le tracce dei 24 geofoni abbiamo effettuato, con l'ausilio del software sopra menzionato, il picking dei primi arrivi delle onde P ed SH per ciascuno dei 9 scoppi.

I dati relativi ai tempi dei primi arrivi delle onde P ed SH a ciascun geofono e le relative distanze dei geofoni dai punti di scoppio sono poi stati utilizzati per tracciare le traveltimes su grafici distanza/tempo.

Lanciato il programma Plotrefa_ee 2.73 della OYO Corporation, abbiamo inserito i dati topografici del profilo investigato dopodiché è stata avviata la procedura tomografica in automatico, scegliendo le condizioni al contorno più attinenti possibili al contesto geologico e stratigrafico dell'area.

Dopo l'inversione è stata nostra cura controllare il fitting tra le dromocrone sperimentali e quelle calcolate.

3.3) Elaborazione dei dati sismici MASW

Le tracce acquisite sono state elaborate attraverso il software di calcolo winMASW Academy 7.0 (Eliosoft Geophysical Software).

E' stata quindi caricata la registrazione e verificato lo spettro di velocità.

Abbiamo quindi generato spettri di velocità artificiali da un modello sismostratigrafico immesso manualmente e progressivamente migliorato per farlo coincidere con lo spettro di velocità risultato dall'analisi.

Verificato l'andamento delle singole armoniche generate dal modello manuale è stato eseguito poi il ripasso grafico dei massimi dello spettro di velocità (picking) così da ottenere dei binomi velocità – frequenza anche attraverso l'ausilio della curva di dispersione effettiva scaturita dall'inversione ESAC.

La fase successiva ha interessato l'inversione analitica di questi dati considerando come modello di partenza quello calcolato precedentemente in maniera manuale.

E' stato altresì verificato che il modello sismostratigrafico fosse compatibile con l'analisi HVSR effettuata in corrispondenza o in prossimità delle stese sismiche (MASW e ESAC), producendo così un'inversione "robusta".

Il metodo d'inversione della curva di dispersione è basato su una tecnica di approssimazione particolarmente sofisticata (algoritmi genetici), che comunque non richiede necessariamente modelli di partenza.

Lanciata l'inversione il programma ha ricercato il modello medio e il modello migliore, tra i vari possibili nello spazio di ricerca che abbiamo precedentemente fissato.

La scelta dello spazio di ricerca è stata effettuata in modo oculato tenendo conto delle caratteristiche geologiche e sismiche dell'area.

3.4) Elaborazione dei dati tecnica ESAC

I sismogrammi ottenuti sono stati opportunamente elaborati con il software WinMasw Academy distribuito dalla ditta Eliosoft.

In particolare, dopo una visione generale delle registrazioni, è stato scelto l'intervallo di frequenze sul quale eseguire l'elaborazione.

E' stata poi generata la curva di dispersione effettiva utilizzata nell'inversione MASW per ottenere la massima penetrazione possibile degli strati.

3.5) Elaborazione dei dati microtremori – HVSR

I sismogrammi ottenuti sono stati opportunamente elaborati con il software WinMasw Academy 7.0 distribuito dalla ditta Eliosoft.

In particolare, dopo una visione generale delle registrazioni, sono state scelte le finestre temporali sulle quali eseguire i rapporti H/V.

E' stato scelto di usare finestre temporali variabili con t compreso tra 20 e 40 secondi dopo aver rimosso i possibili rumori antropici locali in modo da captare frequenze di risonanza minime dell'ordine di 0,5 - 1 Hz (se esistenti).

Inoltre il software è stato settato in modo da evitare fenomeni di triggering sul dato di campagna e ottenere uno smoothing triangolare tra il 5 e il 20% dei risultati finali.

Negli allegati sono mostrate le curve H/V con il grafico della persistenza, della stazionarietà e dei criteri del progetto SESAME.

Nella tabella seguente sono indicati i parametri derivati dalle misure H/V eseguite nelle aree oggetto d'intervento.

| Tipo | Numero | fo | Ao | Classe |
|--------|--------|-----|-----|--------|
| HVSR1 | 1 | 6.4 | 3.6 | A1 |
| HVSR2 | 2 | 2.3 | 1.8 | A2 |
| HVSR3 | 3 | 1.2 | 2.3 | A1 |
| HVSR4 | 4 | 9.6 | 2.9 | B1 |
| HVSR5 | 5 | 4.1 | 1.6 | A2 |
| HVSR6 | 6 | 4.0 | 1.3 | A2 |
| HVSR7 | 7 | 6.3 | 1.6 | A2 |
| HVSR8 | 8 | 2.6 | 1.9 | A2 |
| HVSR9 | 9 | 1.4 | 1.3 | A2 |
| HVSR10 | 10 | 6.4 | 2.7 | B1 |
| HVSR11 | 11 | 7.9 | 2.8 | A1 |
| HVSR12 | 12 | 2.5 | 1.8 | A2 |
| HVSR13 | 13 | 6.2 | 2.0 | A1 |
| HVSR14 | 14 | 1.7 | 4.0 | A1 |
| HVSR15 | 15 | 5.8 | 2.4 | A1 |
| HVSR16 | 16 | 2.3 | 3.6 | A1 |

| | | | | |
|--------|----|------|-----|----|
| HVSR17 | 17 | 0.6 | 1.7 | A2 |
| HVSR18 | 18 | 1.3 | 1.3 | A2 |
| HVSR19 | 19 | 1.0 | 2.0 | A1 |
| HVSR20 | 20 | 0.8 | 2.7 | A1 |
| HVSR21 | 21 | 2.7 | 3.1 | A1 |
| HVSR22 | 22 | 0.8 | 2.5 | A1 |
| HVSR23 | 23 | 1.7 | 2.1 | A1 |
| HVSR24 | 24 | 2.7 | 3.0 | A1 |
| HVSR25 | 25 | 1.2 | 1.4 | A2 |
| HVSR26 | 26 | 1.8 | 1.8 | A2 |
| HVSR27 | 27 | 0.8 | 2.0 | A1 |
| HVSR28 | 28 | 20.0 | 3.0 | A1 |
| HVSR29 | 29 | 4.1 | 3.7 | B1 |
| HVSR30 | 30 | 2.0 | 1.0 | A2 |
| HVSR31 | 31 | 3.8 | 1.6 | A2 |
| HVSR32 | 32 | 5.3 | 1.9 | A2 |
| HVSR33 | 33 | 5.1 | 3.1 | A1 |
| HVSR34 | 34 | 16.4 | 3.0 | A1 |
| HVSR35 | 35 | 4.3 | 2.3 | A1 |
| HVSR36 | 36 | 3.9 | 1.2 | A2 |
| HVSR37 | 37 | 0.7 | 1.2 | A2 |
| HVSR38 | 38 | 0.7 | 1.2 | A2 |
| HVSR39 | 39 | 3.0 | 1.7 | A2 |
| HVSR40 | 40 | 11.9 | 3.2 | A1 |
| HVSR41 | 41 | 10.6 | 3.1 | A1 |
| HVSR42 | 42 | 6.3 | 1.6 | A2 |
| HVSR43 | 43 | 13.9 | 1.4 | A2 |
| HVSR44 | 44 | 7.2 | 1.4 | A2 |
| HVSR45 | 45 | 2.4 | 1.9 | A2 |

GEOLOGICA TOSCANA s.n.c.

di Damiano Guarguaglini & C.

ALLEGATO 1

REPORT DELLE MISURE HVSR

HVSR1_MS2

| | | | | | |
|--|---|---|----------------------------|----------------------------|--|
| DATE | 14.01.2019 | HOUR | 14.55 | PLACE | Via di Grecale - Livorno |
| OPERATOR | Geologica Toscana S.n.c. | | GPS TYPE and # | | |
| WGS84 - UTM33N LATITUDE | 4832376 | WGS84 - UTM33N LONGITUDE | 125483 | ALTITUDE | 55 m slm |
| STATION TYPE | GPA Engineering | | SENSOR TYPE 3D - 4,5 Hz | | |
| STATION # | SENSOR # | | DISK # | | |
| FILE NAME | HVSR1.saf | | | POINT # | |
| GAIN | SAMPL. FREQ | | 300 Hz | REC. DURATION | 20 min <small>minutes</small> seconds |
| WEATHER | WIND | <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | |
| CONDITIONS | RAIN | <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | |
| | Temperature (approx): | | 11 | Remarks _____ | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input checked="" type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input checked="" type="checkbox"/> grass = (<input type="checkbox"/> short <input checked="" type="checkbox"/> tall) | | | | |
| TYPE | <input type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input checked="" type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input checked="" type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | |
| TRANSIENTS | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) | | | | |
| | <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | |
| | none | few | moderate | many | very dense |
| cars | <input checked="" type="checkbox"/> | | | | |
| trucks | <input checked="" type="checkbox"/> | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | |
| other | <input checked="" type="checkbox"/> | | | | |
| NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) | | | | | |
| Buildings | | | | | |
| OBSERVATIONS | | | | FREQUENCY: | Hz |
| | | | | (if computed in the field) | |



Qualità della misura:

- Durata: rispettata
- Stazionarietà: rispettata
- Isotropia: rispettata
- Assenza di disturbi: rispettata
- Plausibilità fisica: rispettata
- Robustezza statistica: rispettata

MISURA TIPO A1

HVSR1_MS2

Peak frequency (Hz): 6.4 (±3.9)
Peak HVSR value: 3.6 (±0.8)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 6.413 > 0.5 (OK)
- #2. [nc > 200]: 15005 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: yes (considering standard deviations), at frequency 3.7Hz (OK)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes, at frequency 12.0Hz (OK)
- #3. [A0 > 2]: 3.6 > 2 (OK)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaf < epsilon(f0)]: 3.938 > 0.321 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.751 < 1.58 (OK)

show data **reset** **show location**

step#1 (optional) - decimate
 64Hz new frequency **resample**

step#2 - HV computation
remove events both Rad. & Tr. **clean axes**
 20 window length (s)
 8 tapering (%)
 9 outlier tolerance threshold
 15% spectral smoothing (triangular window)
 show particle motion (raw data)
 full output: **compute**

step#3a (optional) - directivity analysis
compute max freq: 32 Hz

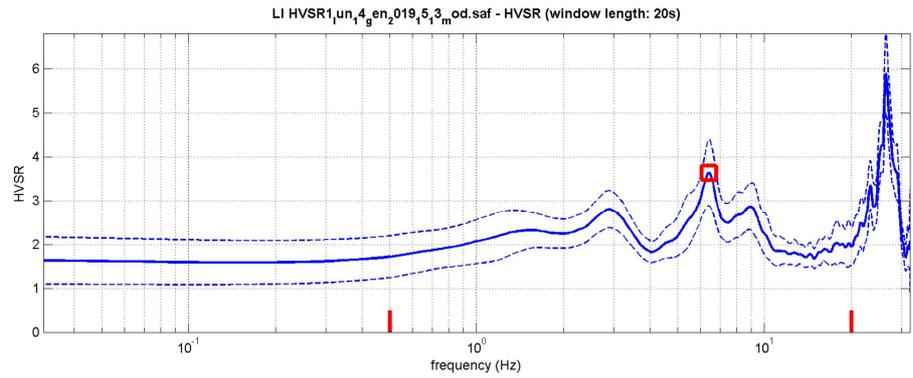
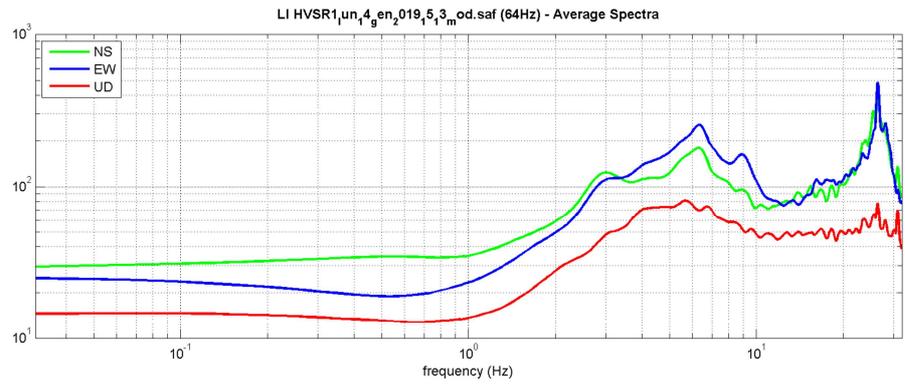
step#3b (optional) - directivity over time
directivity in time time step: 60 s

save - option#1: save HVSR as it is
 save HV from 0.05 to 64 Hz
save HV curve (as it is)

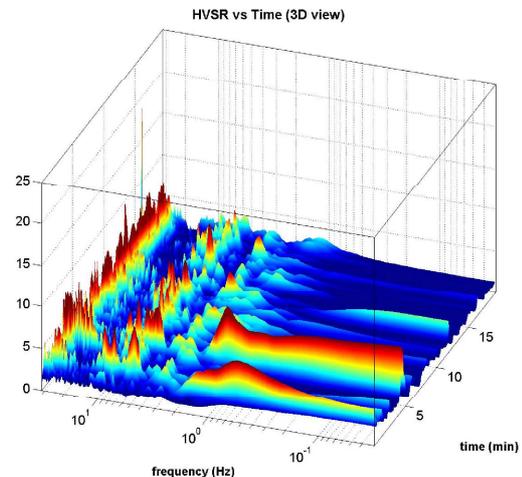
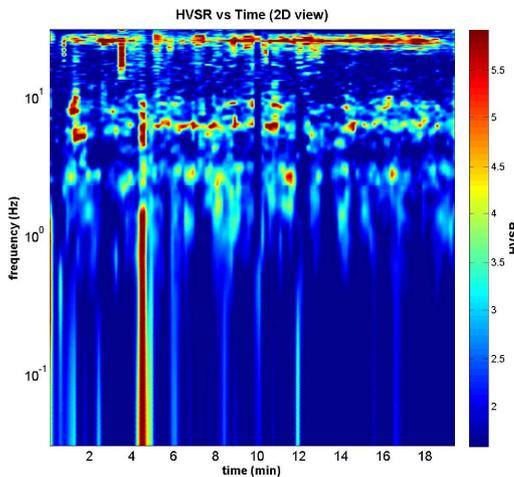
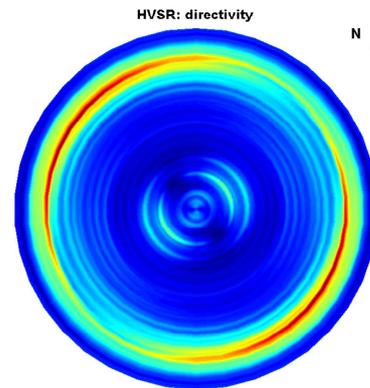
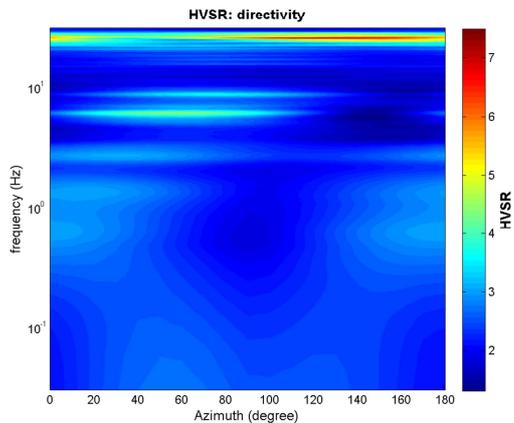
save - option#2: picking HV curve
pick HV curve **save picked HV**

quick analysis (f=Vs/4H)
 180 average Vs (m/s) (from surface to bedrock)
 20 depth of the bedrock (m)
 1000 Vs of the bedrock
clean **compute**

www.winmasw.com



To model the HVSR (also jointly with MASW or ReMIESAC data), save the HV curve, go to the "Velocity Spectra, Modeling & Picking" panels and upload the saved HV curve



HVSR2_MS2

| DATE 08.01.2019 | HOUR 16.03 | PLACE Via di Grecale - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|----------|------|------------|----------|------------|----------|------|-------------------------------------|--|--|--|--|--|--------|-------------------------------------|--|--|--|--|--|-------------|--|-------------------------------------|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|---|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4832626 | WGS84 - UTM33N LONGITUDE 125360 | ALTITUDE 43 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR2.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 8 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input checked="" type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input checked="" type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input checked="" type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | <input checked="" type="checkbox"/> | | | | | | trucks | <input checked="" type="checkbox"/> | | | | | | pedestrians | | <input checked="" type="checkbox"/> | | | | | other | <input checked="" type="checkbox"/> | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Trees, Buildings |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

MISURA TIPO A2

HVSR2_MS2

Peak frequency (Hz): 2.3 (±1.1)

Peak HVSR value: 1.8 (±0.3)

==== Criteria for a reliable H/V curve =====

- #1. $[f_0 > 10/L_w]$: $2.283 > 0.5$ (OK)
- #2. $[n_c > 200]$: $5343 > 200$ (OK)
- #3. $[f_0 > 0.5\text{Hz}; \sigma_A(f) < 2 \text{ for } 0.5f_0 < f < 2f_0]$ (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. $[\text{exists } f_- \text{ in the range } [f_0/4, f_0] \mid A_{H/V}(f_-) < A_0/2]$: yes (considering standard deviations), at frequency 0.6Hz (OK)
- #2. $[\text{exists } f_+ \text{ in the range } [f_0, 4f_0] \mid A_{H/V}(f_+) < A_0/2]$: yes, at frequency 6.3Hz (OK)
- #3. $[A_0 > 2]$: $1.8 < 2$ (NO)
- #4. $[f_{\text{peak}}[A_{H/V}(f) \pm \sigma_A(f)] = f_0 \pm 5\%]$: (OK)
- #5. $[\sigma_f < \epsilon(f_0)]$: $1.062 > 0.114$ (NO)
- #6. $[\sigma_A(f_0) < \theta(f_0)]$: $0.286 < 1.58$ (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.

window length (s) **Min. freq.: 0.25Hz**
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion and all HVSRs
 full output

step#3 - directivity analysis
 frequencies to highlight: Hz

3D motion
 save video

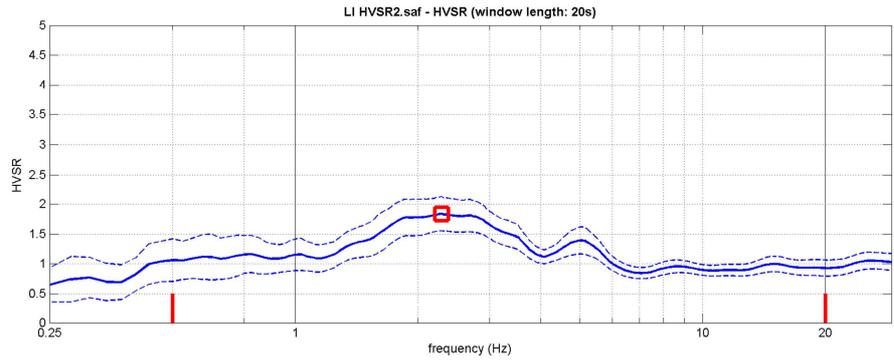
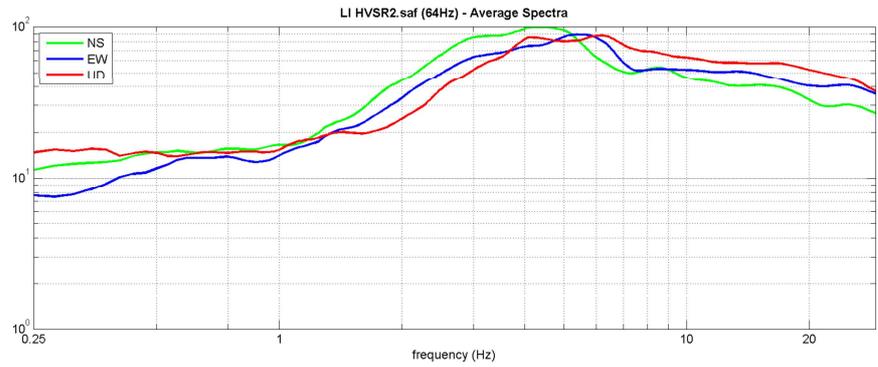
save - option#1: save HVSR as it is
 save HV from to Hz

save - option#2: picking H/V curve

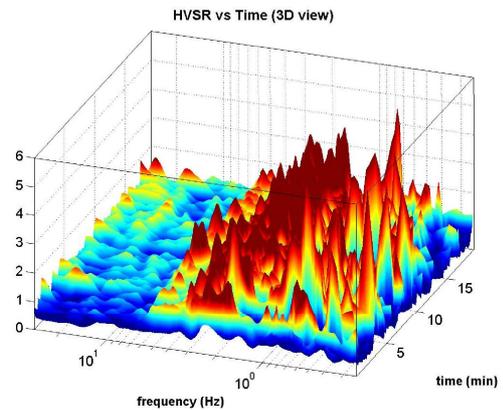
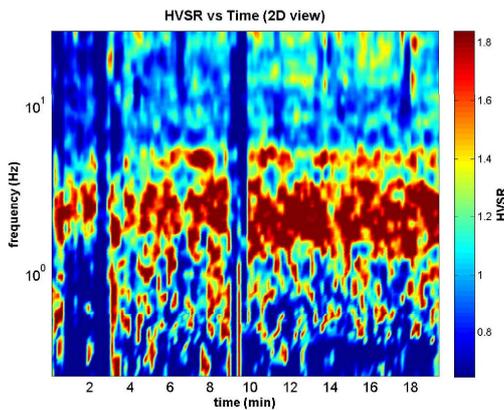
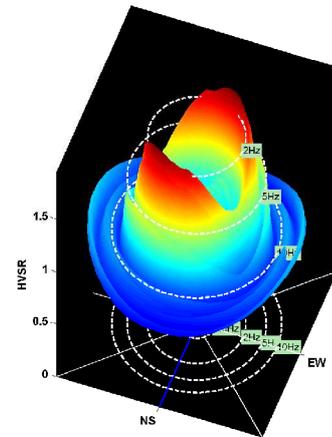
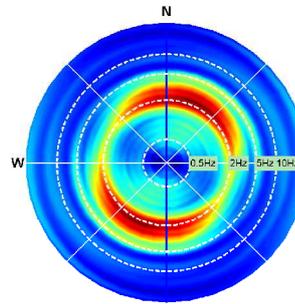
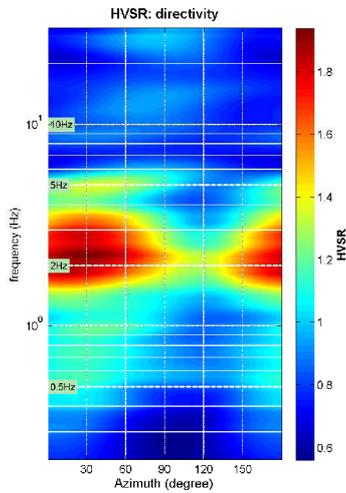
quick analysis (f-Vs/dB)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

highlight a frequency
 Hz

directivity over time
 time step: s



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/a, Modeling & Picking" panels and upload the saved HV curve



HVSR3_MS2

| DATE 14.01.2019 | HOUR 13.50 | PLACE Via di Tramontana - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|----------|------|------------|----------|------------|----------|------|--|-------------------------------------|--|--|--|--|--------|--|-------------------------------------|--|--|--|--|-------------|--|-------------------------------------|--|--|--|--|-------|--|-------------------------------------|--|--|--|--|---|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4833041 | WGS84 - UTM33N LONGITUDE 124906 | ALTITUDE 24 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR3.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes</small> <small>seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 13 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input checked="" type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input checked="" type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input checked="" type="checkbox"/> none <input type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | <input checked="" type="checkbox"/> | | | | | trucks | | <input checked="" type="checkbox"/> | | | | | pedestrians | | <input checked="" type="checkbox"/> | | | | | other | | <input checked="" type="checkbox"/> | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input type="checkbox"/> no <input checked="" type="checkbox"/> yes, type <u>works</u> NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

- Durata: rispettata
- Stazionarietà: rispettata
- Isotropia: rispettata
- Assenza di disturbi: rispettata
- Plausibilità fisica: rispettata
- Robustezza statistica: rispettata

MISURA TIPO A1

HVSR3_MS2

Peak frequency (Hz): 1.2 (±6.7)
 Peak HVSR value: 2.3 (±0.3)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 1.220 > 0.5 (OK)
- #2. [nc > 200]: 2659 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: (NO)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: (NO)
- #3. [A0 > 2]: 2.3 > 2 (OK)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaAf < epsilon(f0)]: 6.682 > 0.122 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.275 < 1.78 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.
 window length (s)
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion (raw data)
 full output

step#3a (optional) - directivity analysis
 max freq: Hz

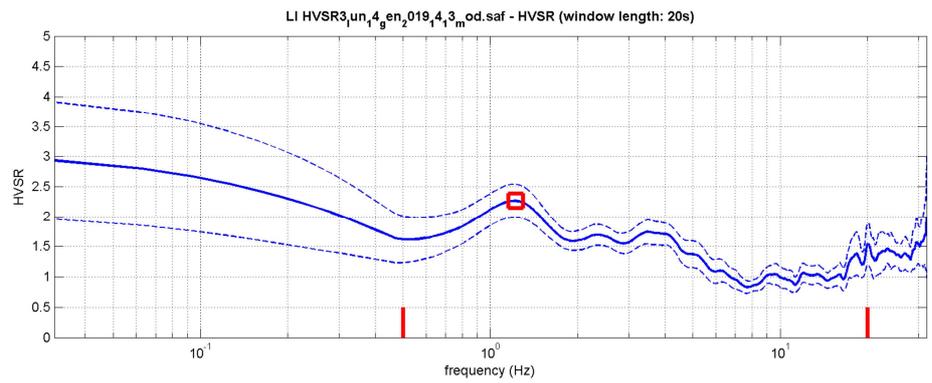
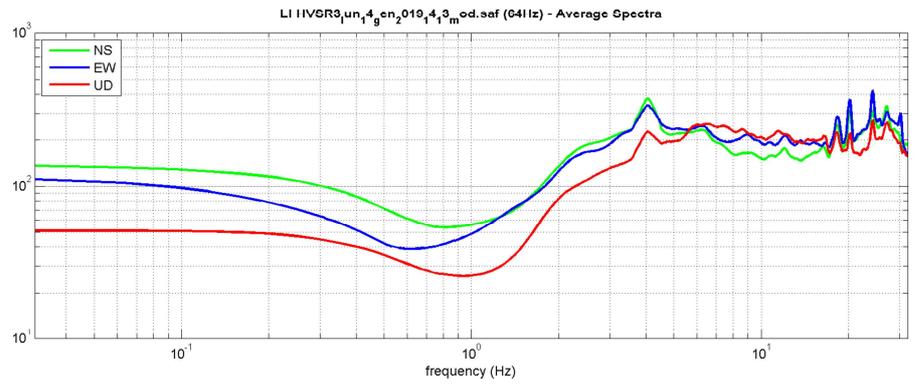
step#3b (optional) - directivity over time
 time step: s

save - option#1: save HVSR as it is
 save HV from to Hz

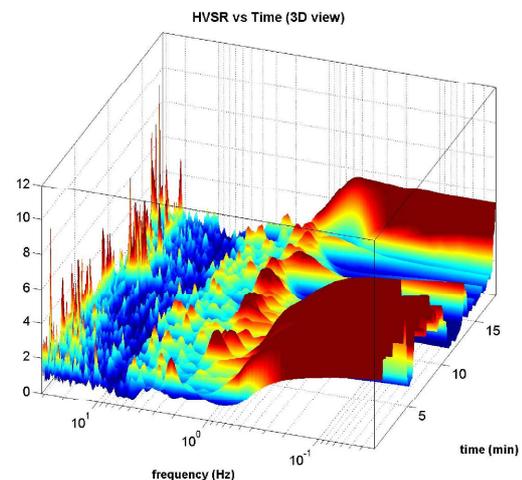
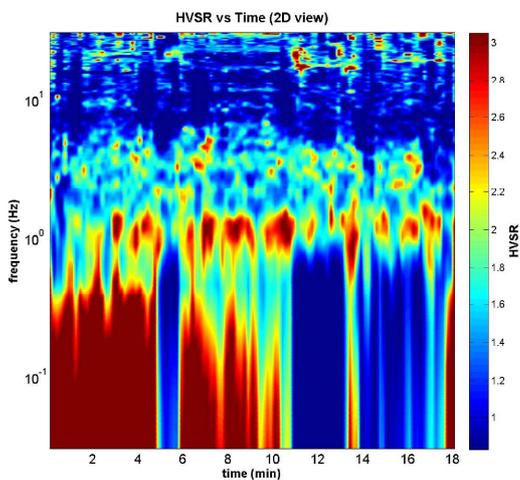
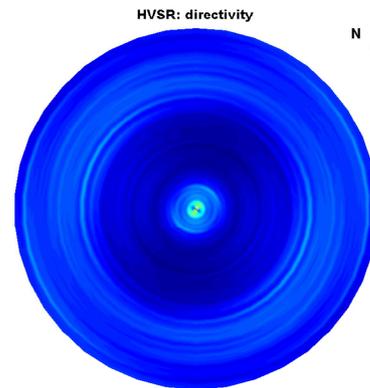
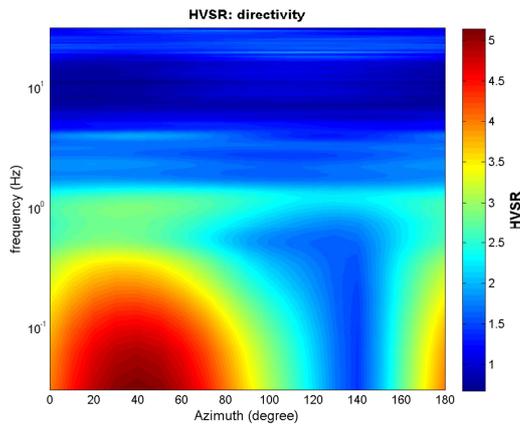
save - option#2: picking HV curve

quick analysis (f=Vs/4H)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

www.winmasw.com



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/s, Modeling & Picking" panels and upload the saved HV curve



HVSR4_MS2

| | | |
|--|--|---|
| DATE 14.01.2019 | HOUR 12.48 | PLACE Via dell'Uliveta - Livorno |
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # |
| WGS84 - UTM33N LATITUDE 4832044 | WGS84 - UTM33N LONGITUDE 125044 | ALTITUDE 43 m slm |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | |
| STATION # | SENSOR # | DISK # |
| FILE NAME HVSR4.saf | | POINT # |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes</small> <small>seconds</small> |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | |
| Temperature (approx): 12 Remarks _____ | | |
| GROUND | <input checked="" type="checkbox"/> earth (<input type="checkbox"/> hard <input checked="" type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | |
| TYPE | <input type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ | |
| <input checked="" type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | |
| BUILDING DENSITY <input type="checkbox"/> none <input checked="" type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | |
| TRANSIENTS | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | |
| cars | none | few |
| trucks | moderate | many |
| pedestrians | very dense | distance |
| other | | |
| NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Trees | | |
| OBSERVATIONS | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | |



Qualità della misura:

- Durata: rispettata
- Stazionarietà: rispettata
- Isotropia: non rispettata
- Assenza di disturbi: rispettata
- Plausibilità fisica: rispettata
- Robustezza statistica: rispettata

MISURA TIPO B1

HVSR4_MS2

Peak frequency (Hz): 9.6 (±2.0)
Peak HVSR value: 2.9 (±0.4)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 9.603 > 0.5 (OK)
- #2. [nc > 200]: 21127 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: yes, at frequency 3.2Hz (OK)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes, at frequency 11.7Hz (OK)
- #3. [A0 > 2]: 2.9 > 2 (OK)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaf < epsilon(f0)]: 2.007 > 0.480 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.429 < 1.58 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.

window length (s)
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion (raw data)
 full output

step#3a (optional) - directivity analysis
 max freq: Hz

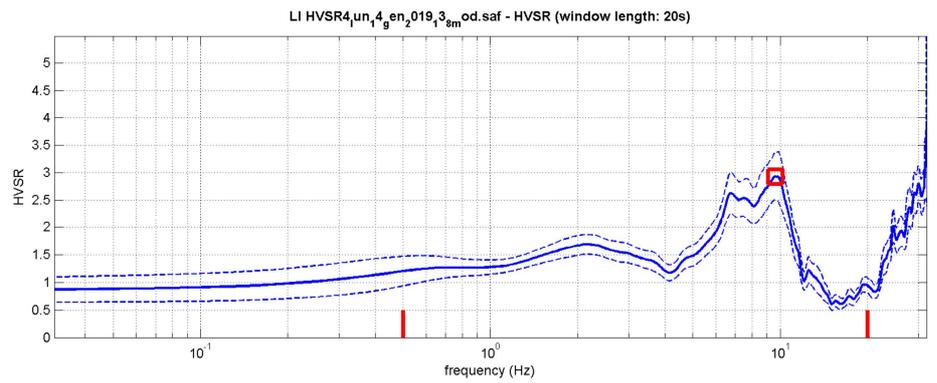
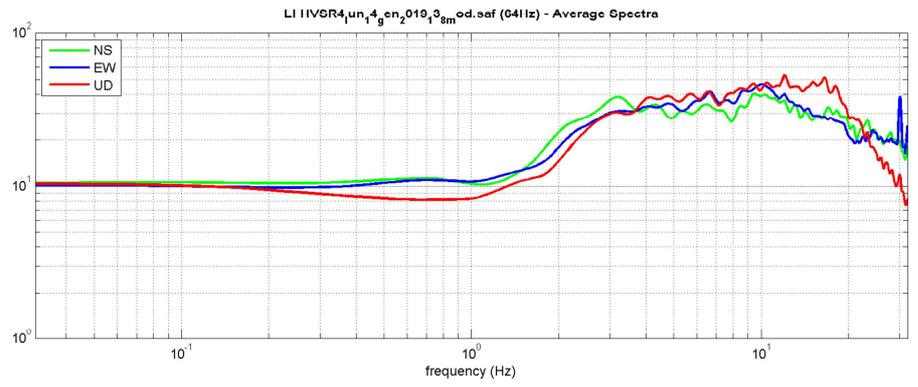
step#3b (optional) - directivity over time
 time step: s

save - option#1: save HVSR as it is
 save HV from to Hz

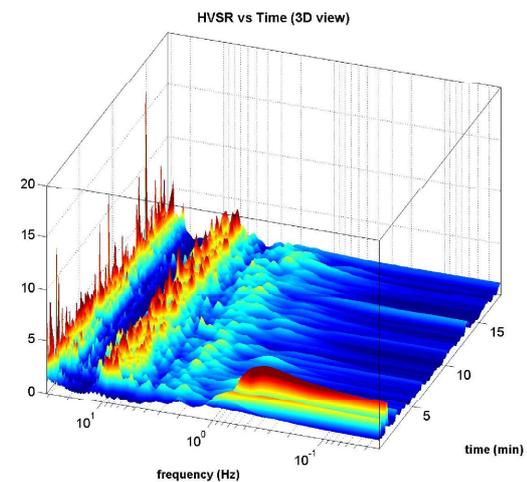
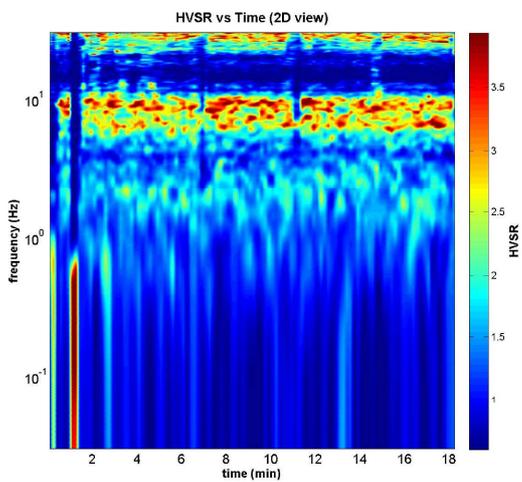
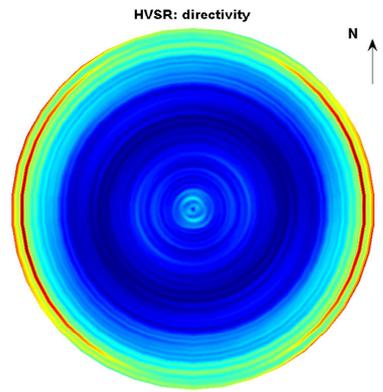
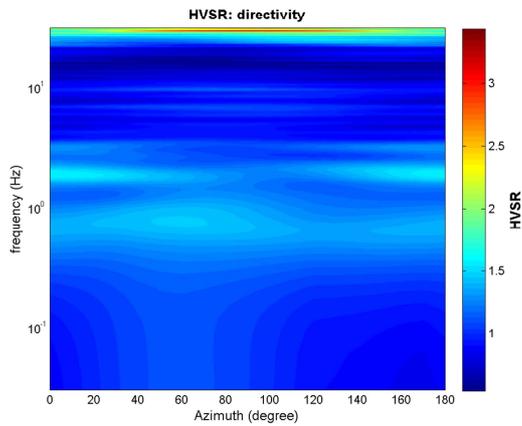
save - option#2: picking H/V curve

quick analysis (f=Vs/4H)
 average Vs (m/s)
 (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

www.winmasw.com



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/s, Modeling & Picking" panels and upload the saved HV curve



HVSR5_MS2

| DATE 08.01.2019 | HOUR 13.28 | PLACE Via delle Sorgenti - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|-------------------------------------|-------------------------------------|------------|----------|------------|----------|------|--|--|--|-------------------------------------|--|--|--------|--|--|-------------------------------------|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|---|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4833786 | WGS84 - UTM33N LONGITUDE 124437 | ALTITUDE 16 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR5.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes</small> <small>seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 9 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input checked="" type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input checked="" type="checkbox"/> none <input type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td></td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td></td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | | | <input checked="" type="checkbox"/> | | | trucks | | | <input checked="" type="checkbox"/> | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | <input checked="" type="checkbox"/> | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

MISURA TIPO A2

HVSR5_MS2

Peak frequency (Hz): 4.1 (±1.1)
Peak HVSR value: 1.6 (±0.2)

=== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 4.066 > 0.5 (OK)
- #2. [nc > 200]: 9597 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

=== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: yes, at frequency 1.0Hz (OK)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes, at frequency 8.6Hz (OK)
- #3. [A0 > 2]: 1.6 < 2 (NO)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaf < epsilon(f0)]: 1.103 > 0.203 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.150 < 1.58 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.

window length (s) Min. freq.: 0.25Hz
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion and all HVSRs
 full output

step#3 - directivity analysis
 frequencies to highlight: Hz

3D motion
 save video

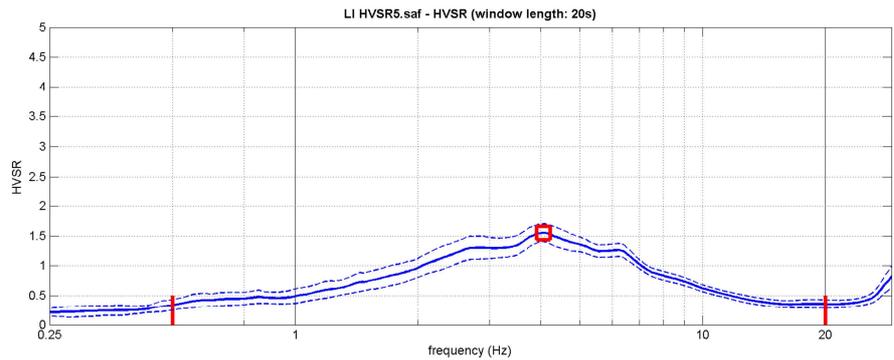
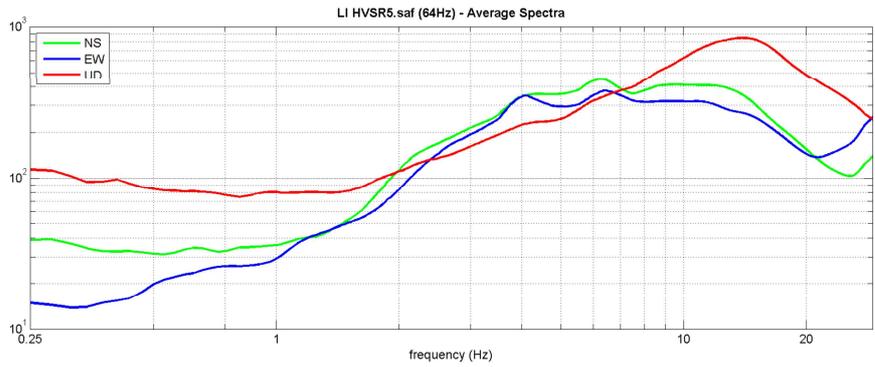
save - option#1: save HVSR as it is
 save HV from to Hz

save - option#2: picking H/V curve

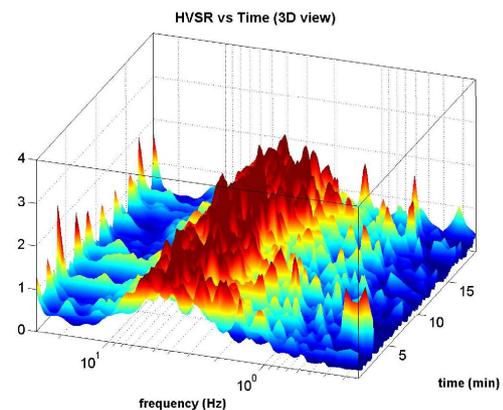
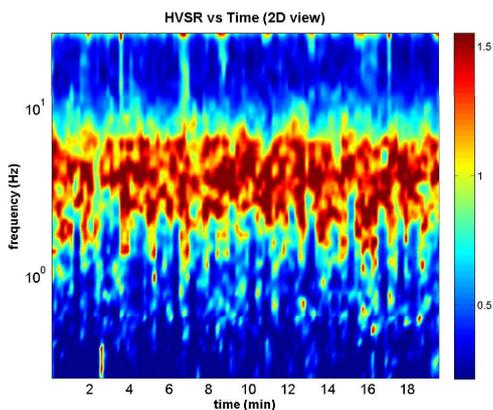
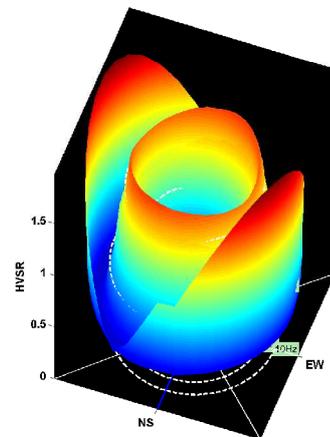
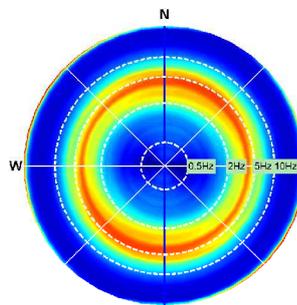
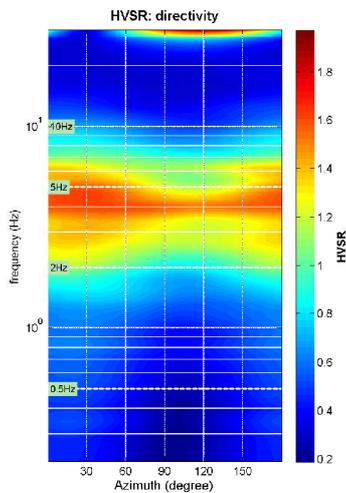
quick analysis (f-Vs/|H|)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

highlight a frequency
 Hz

directivity over time
 time step: s



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/a, Modeling & Picking" panels and upload the saved H-V curve



HVSR6_MS2

| DATE 10.01.2019 | HOUR 16.45 | PLACE Via dei Cordai - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|----------|------|------------|----------|------------|----------|------|--|--|--|--|--|--|--------|--|--|--|--|--|--|-------------|--|--|--|--|--|--|-------|--|--|--|--|--|--|--|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4834528 | WGS84 - UTM33N LONGITUDE 124015 | ALTITUDE 14 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR6.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 7 _____ Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input checked="" type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input checked="" type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | | | | | | trucks | | | | | | | pedestrians | | | | | | | other | | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input type="checkbox"/> no <input checked="" type="checkbox"/> yes, type <u>Factories</u> NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) <u>Trees, Buildings</u> |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

MISURA TIPO A2

HVSR6_MS2

Peak frequency (Hz): 4.0 (±4.0)

Peak HVSR value: 1.3 (±0.1)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 4.004 > 0.5 (OK)
- #2. [nc > 200]: 6166 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: (NO)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes, at frequency 7.2Hz (OK)
- #3. [A0 > 2]: 1.3 < 2 (NO)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaf < epsilon(f0)]: 3.957 > 0.200 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.148 < 1.58 (OK)

show data reset show location

step#1 (optional) - decimate
 64x new frequency resample

step#2 - HV computation
 remove events: both flat & lr clean axes
 20 window length (s)
 9 tapering (%)
 9 outlier tolerance threshold
 15% spectral smoothing (triangular window)
 show particle motion (raw data)
 full output compute

step#3a (optional) - directivity analysis
 compute max freq: 32 Hz

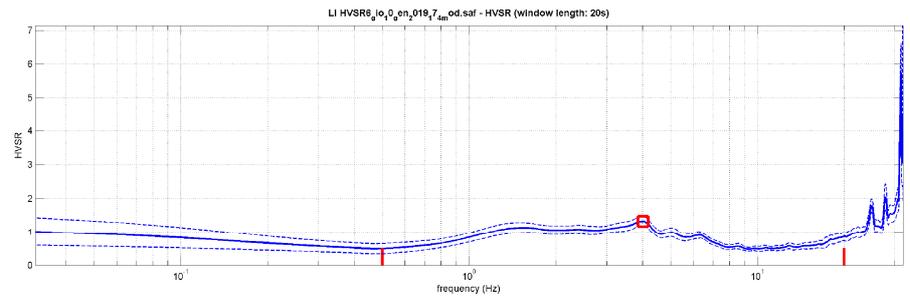
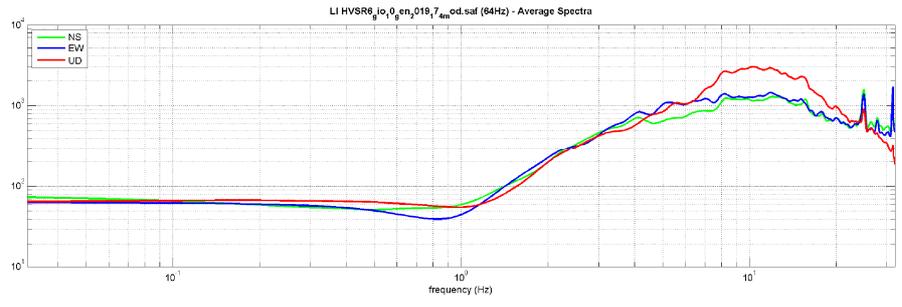
step#3b (optional) - directivity over time
 directivity in time time step: 0.1 s

save - option#1: save HVSR as it is
 save HV from 0.05 to 64 Hz
 save HV curve (as it is)

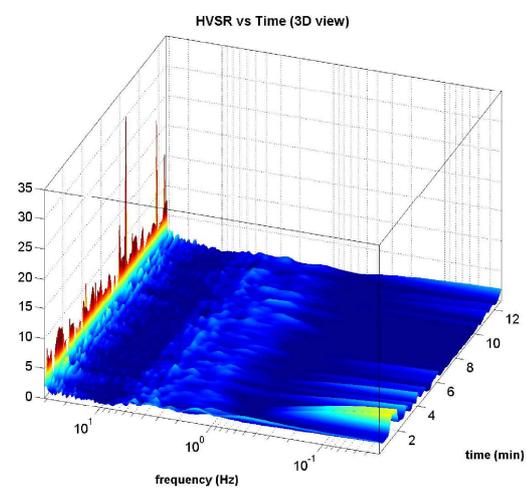
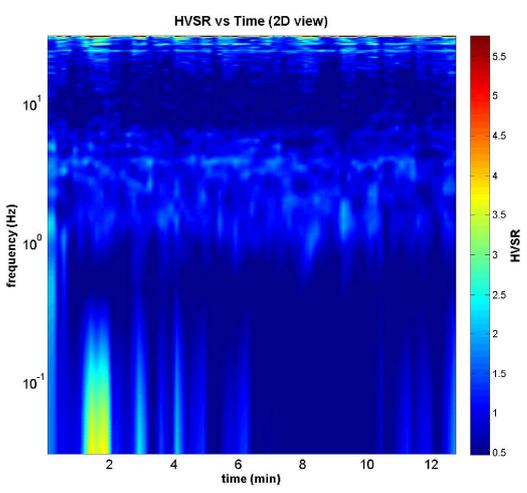
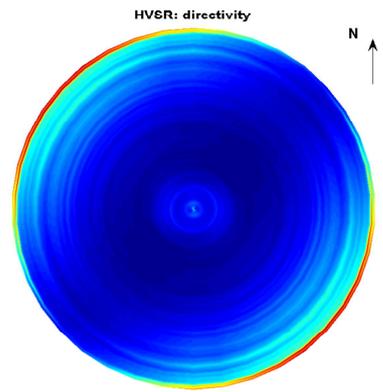
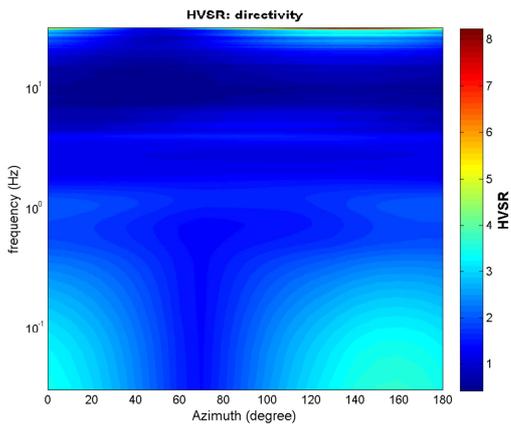
save - option#2: picking HV curve
 pick HV curve save picked HV

quick analysis (t-Vs(t))
 180 (from surface to bedrock)
 20 depth of the bedrock (m)
 1000 % of the bedrock
 clean compute

www.inmasw.com



To model the HVSR (also jointly with MASW or RefMESAC data), save the HV curve, go to the "Velocity Spectral, Modeling & Picking" panels and upload the saved HV curve



HVSR7_MS2

| DATE 14.01.2019 | HOUR 12.12 | PLACE Via delle Macchie - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|----------|------|------------|----------|------------|----------|------|--|-------------------------------------|--|--|--|--|--------|-------------------------------------|--|--|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|--|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4831835 | WGS84 - UTM33N LONGITUDE 123916 | ALTITUDE 24 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR7.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes</small> <small>seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 12 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input checked="" type="checkbox"/> soft) <input checked="" type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input checked="" type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input checked="" type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | <input checked="" type="checkbox"/> | | | | | trucks | <input checked="" type="checkbox"/> | | | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | <input checked="" type="checkbox"/> | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Buildings |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

MISURA TIPO A2

HVSR7_MS2

Peak frequency (Hz): 6.3 (±3.0)

Peak HVSR value: 1.6 (±0.2)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 6.350 > 0.5 (OK)
- #2. [nc > 200]: 14478 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: (NO)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes, at frequency 11.3Hz (OK)
- #3. [A0 > 2]: 1.6 < 2 (NO)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (NO)
- #5. [sigmaAf < epsilon(f0)]: 3.017 > 0.317 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.232 < 1.58 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.

window length (s)
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion (raw data)
 full output

step#3a (optional) - directivity analysis
 max freq: Hz

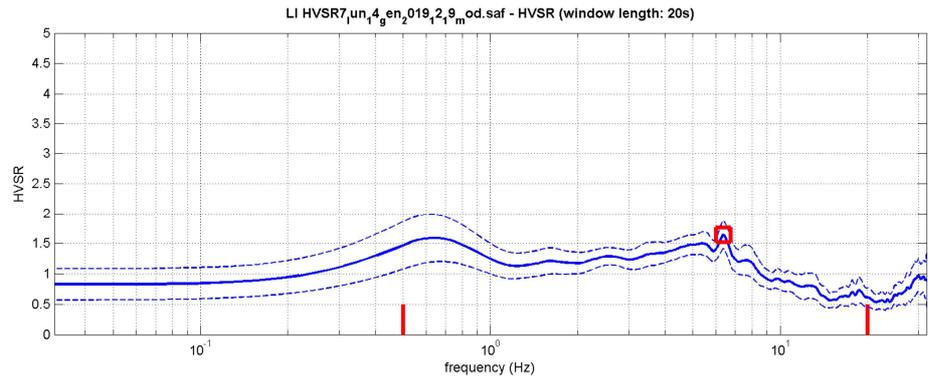
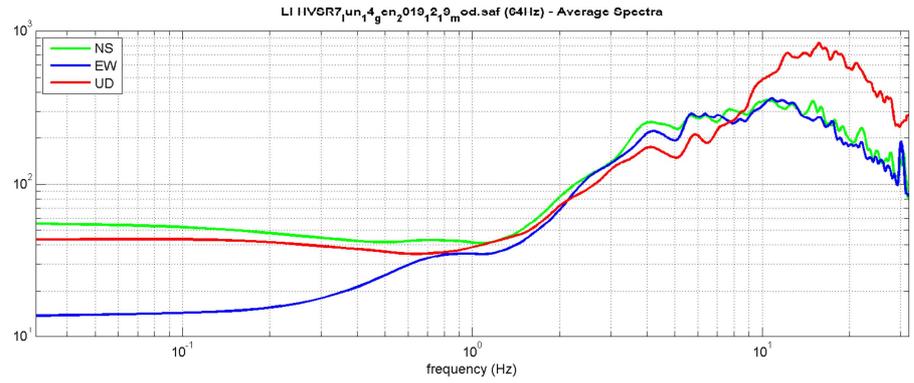
step#3b (optional) - directivity over time
 time step: s

save - option#1: save HVSR as it is
 save HV from to Hz

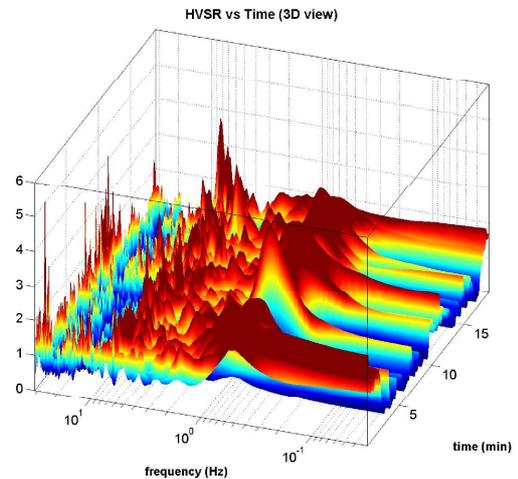
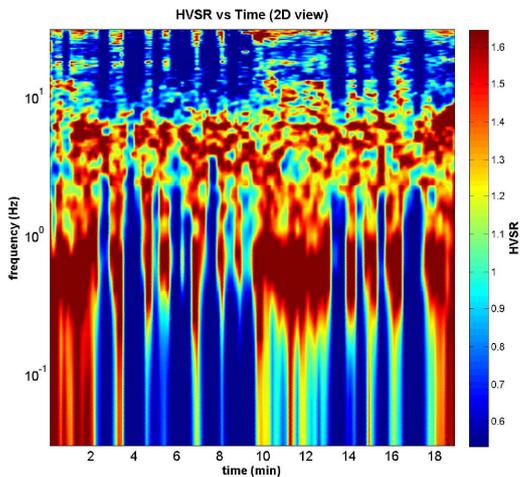
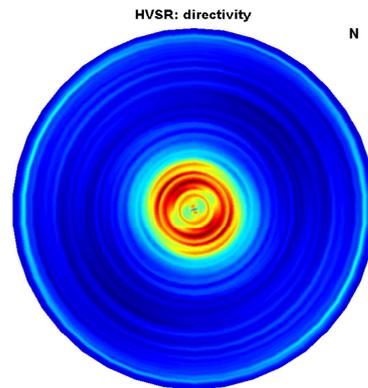
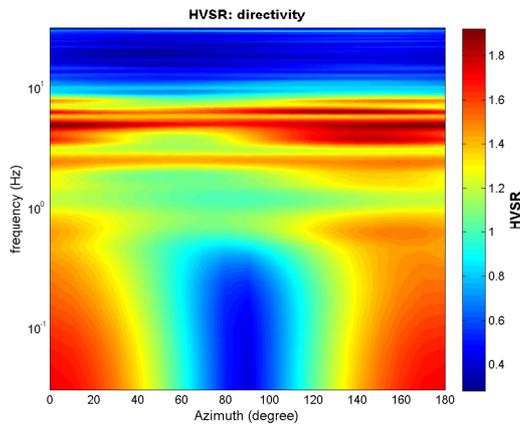
save - option#2: picking H/V curve

quick analysis (f=Vs/4H)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

www.winmasw.com



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/s, Modeling & Picking" panels and upload the saved HV curve



HVSR8_MS2

| DATE 14.01.2019 | HOUR 11.30 | PLACE Via G. Cambini - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|----------|------|------------|----------|------------|----------|------|-------------------------------------|--|--|--|--|--|--------|-------------------------------------|--|--|--|--|--|-------------|--|-------------------------------------|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|--|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4832106 | WGS84 - UTM33N LONGITUDE 123190 | ALTITUDE 19 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR8.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes</small> <small>seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 12 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input checked="" type="checkbox"/> soft) <input type="checkbox"/> gravel <input checked="" type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input checked="" type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input checked="" type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | <input checked="" type="checkbox"/> | | | | | | trucks | <input checked="" type="checkbox"/> | | | | | | pedestrians | | <input checked="" type="checkbox"/> | | | | | other | <input checked="" type="checkbox"/> | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Buildings |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

MISURA TIPO A2

HVSR8_MS2

Peak frequency (Hz): 2.6 (±5.4)
Peak HVSR value: 1.9 (±0.2)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 2.628 > 0.5 (OK)
- #2. [nc > 200]: 5833 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: (NO)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes, at frequency 6.6Hz (OK)
- #3. [A0 > 2]: 1.9 < 2 (NO)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (NO)
- #5. [sigmaf < epsilon(f0)]: 5.369 > 0.131 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.219 < 1.58 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.

window length (s)
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion (raw data)
 full output

step#3a (optional) - directivity analysis
 max freq: Hz

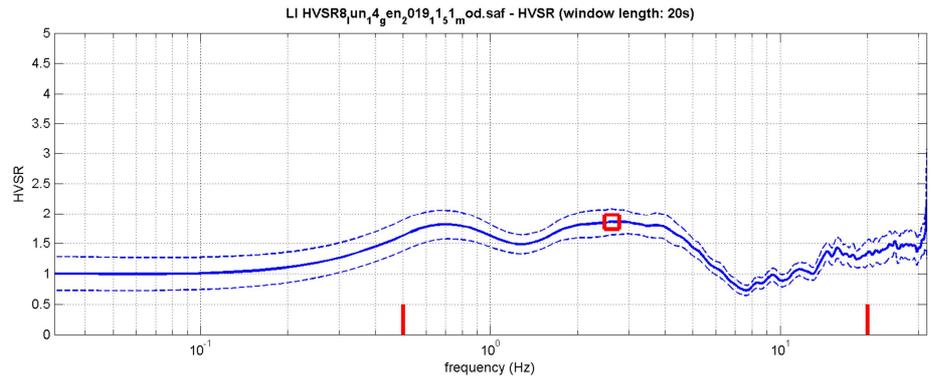
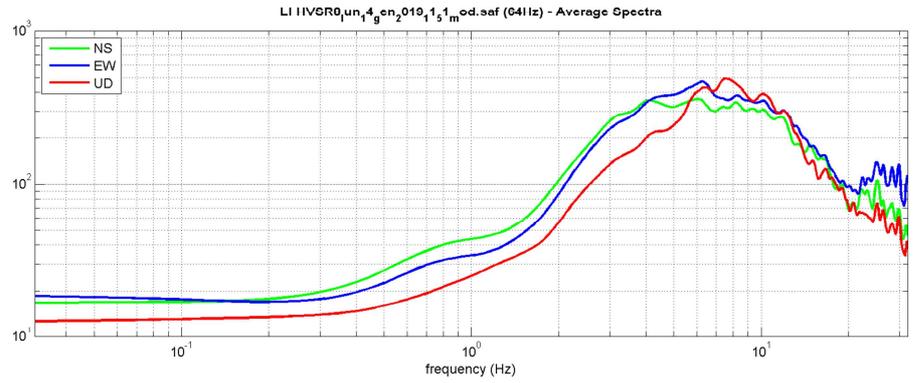
step#3b (optional) - directivity over time
 time step: s

save - option#1: save HVSR as it is
 save HV from to Hz

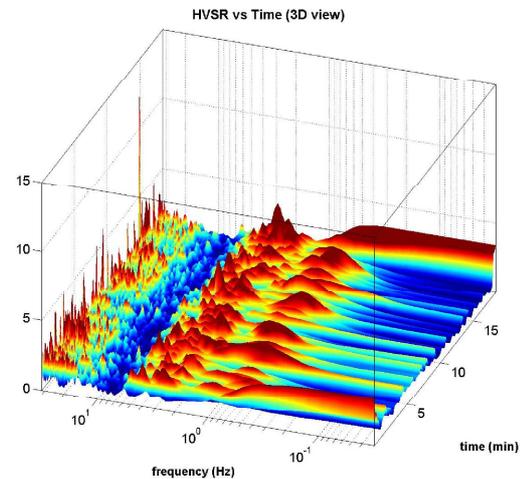
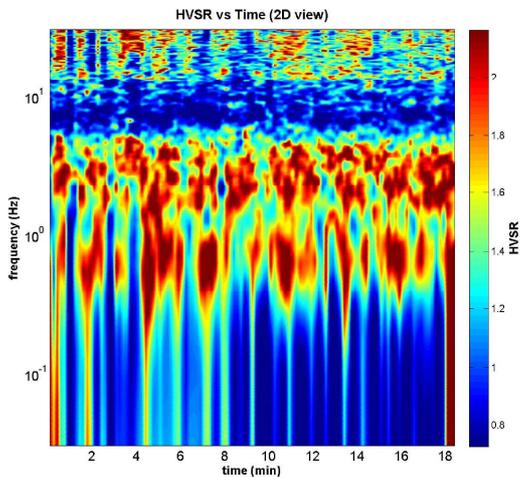
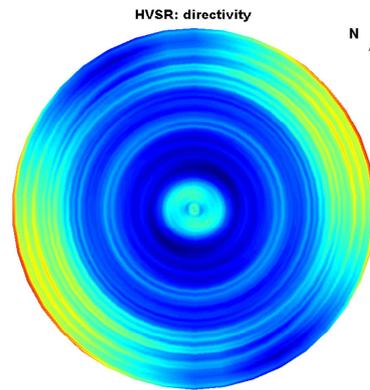
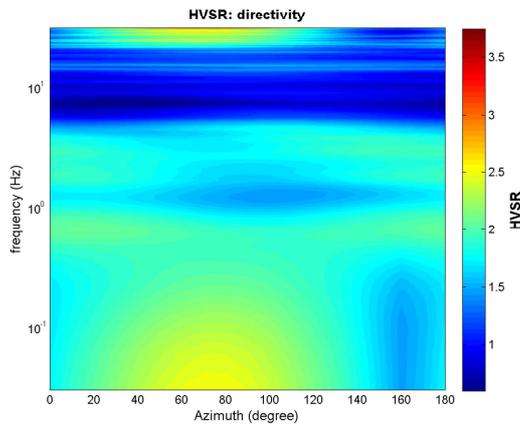
save - option#2: picking H/V curve

quick analysis (f=Vs/4H)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

www.winmasw.com



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/s, Modeling & Picking" panels and upload the saved HV curve



HVSR9_MS2

| | | | | | | |
|--|--|---|-------------------------------------|------|------------|---|
| DATE 03.01.2019 | HOUR 13.35 | PLACE Largo Petrolini - Livorno | | | | |
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | |
| WGS84 - UTM33N LATITUDE 4830605 | WGS84 - UTM33N LONGITUDE 122624 | ALTITUDE 21 m slm | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | |
| STATION # | SENSOR # | DISK # | | | | |
| FILE NAME HVSR9.saf | | POINT # | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes seconds</small> | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | |
| Temperature (approx): 10 Remarks _____ | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | |
| TYPE | <input checked="" type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input type="checkbox"/> scattered <input checked="" type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | |
| TRANSIENTS | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) |
| | none | few | moderate | many | very dense | distance |
| cars | | <input checked="" type="checkbox"/> | | | | |
| trucks | | | <input checked="" type="checkbox"/> | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | |
| | | | | | | NEARBY STRUCTURES (trees, polls, buildings, bridges, underground structures...) |
| | | | | | | Buildings |
| OBSERVATIONS | | | | | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> |



Qualità della misura:

MISURA TIPO A2

HVSR9_MS2

Peak frequency (Hz): 1.4 (±1.8)

Peak HVSR value: 1.3 (±0.2)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 1.376 > 0.5 (OK)
- #2. [nc > 200]: 3166 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: yes (considering standard deviations), at frequency 0.5Hz (OK)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes, at frequency 4.3Hz (OK)
- #3. [A0 > 2]: 1.3 < 2 (NO)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (NO)
- #5. [sigmaAf < epsilon(f0)]: 1.808 > 0.138 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.223 < 1.78 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.

window length (s) Min. freq.: 0.25Hz
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion and all HVSRs
 full output

step#3 - directivity analysis
 frequencies to highlight: Hz

3D motion
 save video

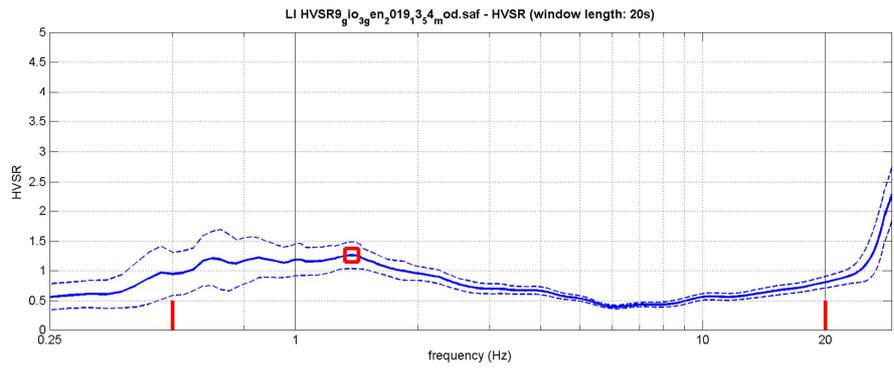
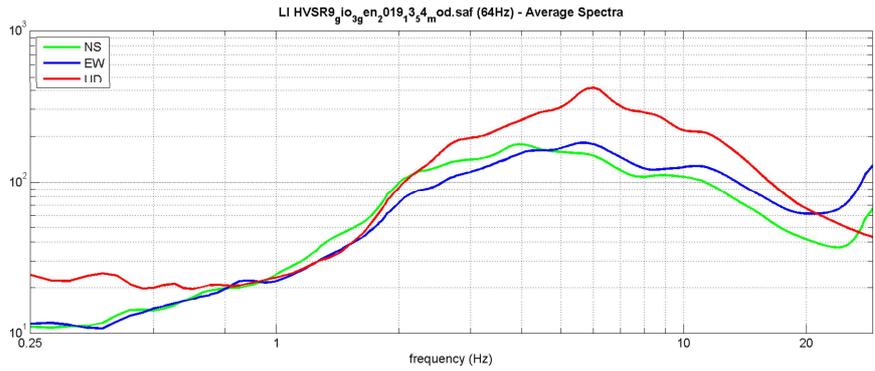
save - option#1: save HVSR as it is
 save HV from to Hz

save - option#2: picking H/V curve

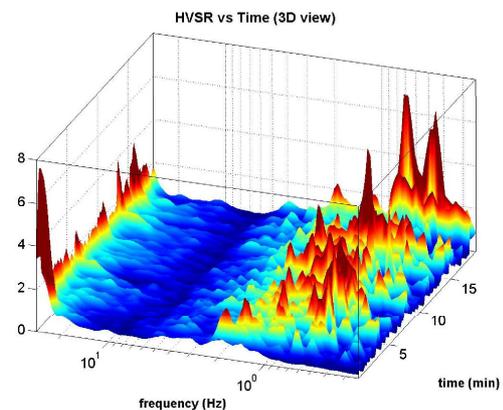
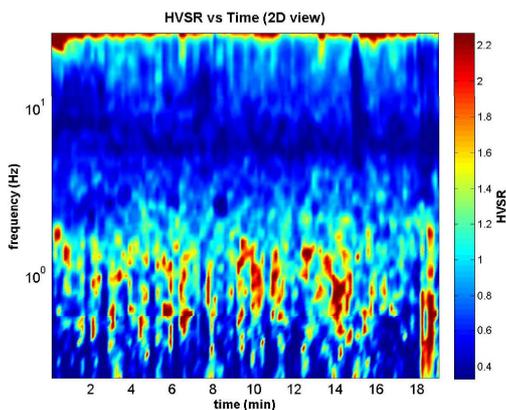
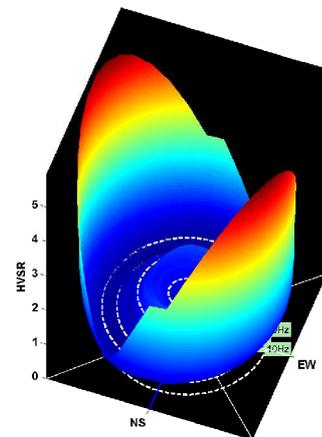
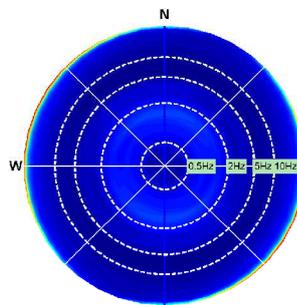
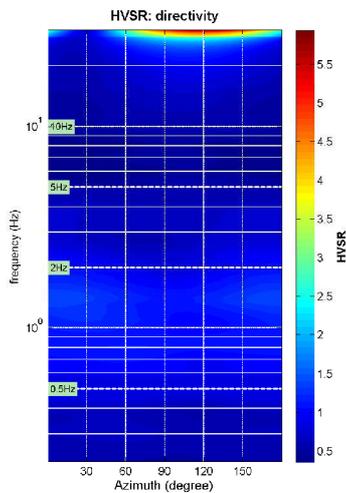
quick analysis (f-Vs/|H|)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

highlight a frequency
 Hz

directivity over time
 time step: s



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/a, Modeling & Picking" panels and upload the saved HV curve



HVSR10_MS2

| DATE 03.01.2019 | HOOR 15.01 | PLACE Via del Limoncino - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|----------|------|------------|----------|------|------------|----------|------|-------------------------------------|--|--|--|--|--|--------|-------------------------------------|--|--|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4830243 | WGS84 - UTM33N LONGITUDE 125291 | ALTITUDE 88 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR10.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 8 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input checked="" type="checkbox"/> earth (<input checked="" type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input checked="" type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input checked="" type="checkbox"/> none <input type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | none | few | moderate | many | very dense | distance | cars | <input checked="" type="checkbox"/> | | | | | | trucks | <input checked="" type="checkbox"/> | | | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | <input checked="" type="checkbox"/> | | | | | |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Trees | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

- Durata: rispettata
- Stazionarietà: rispettata
- Isotropia: non rispettata
- Assenza di disturbi: rispettata
- Plausibilità fisica: rispettata
- Robustezza statistica: rispettata

MISURA TIPO B1

HVSR10_MS2

Peak frequency (Hz): 6.4 (±5.6)
Peak HVSR value: 2.7 (±0.3)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 6.444 > 0.5 (OK)
- #2. [nc > 200]: 14950 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: yes, at frequency 1.6Hz (OK)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes (considering standard deviations), at frequency Hz (OK)
- #3. [A0 > 2]: 2.7 > 2 (OK)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaf < epsilon(f0)]: 5.564 > 0.322 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.298 < 1.58 (OK)

step#1 (optional) - decimate
 64Hz

step#2 - H/V computation
 both Rad. & Tr.

window length (s) Min. freq.: 0.25Hz
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion and all HVSRs
 full output

step#3 - directivity analysis
 frequencies to highlight: 0.5 2.0 5.0 10.0 Hz

3D motion
 save video

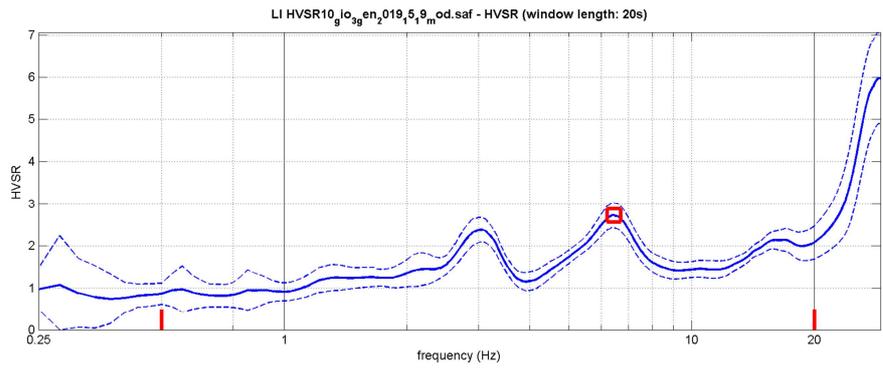
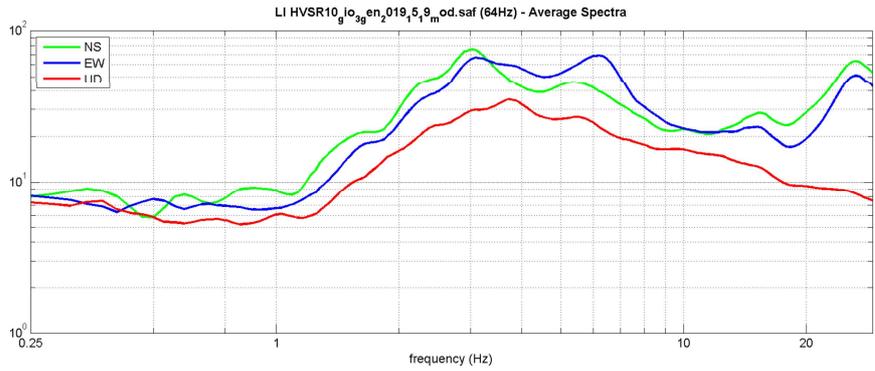
save - option#1: save HVSR as it is
 save HV from 0.25 to 30 Hz

save - option#2: picking HV curve

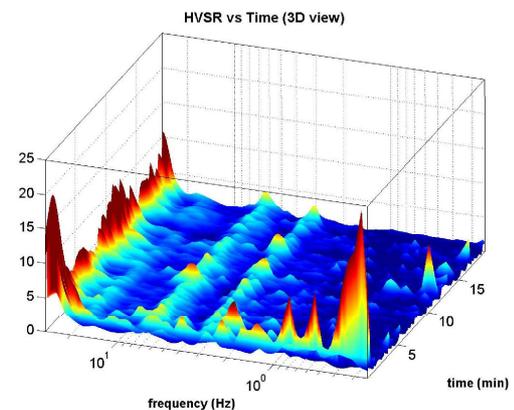
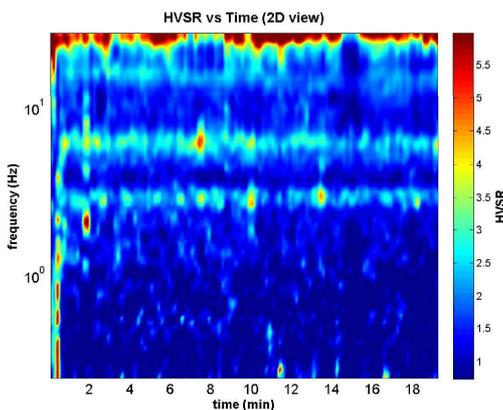
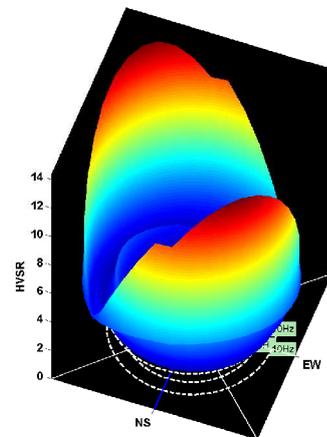
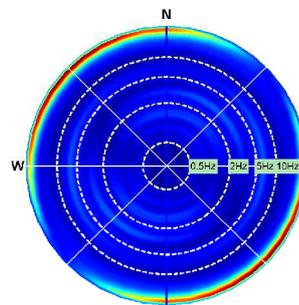
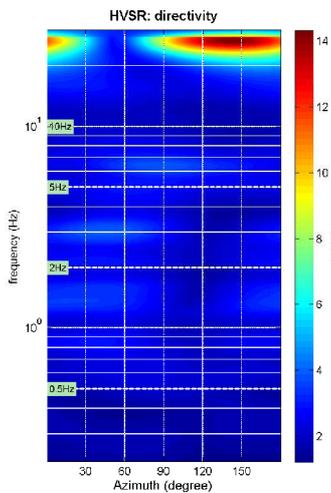
quick analysis (f-Vs/|H|)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

highlight a frequency
 10 Hz

directivity over time
 time step: 60 s



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/a, Modeling & Picking" panels and upload the saved HV curve



HVSR11_MS2

| | | | | | |
|--|--|---|----------------------------|--|--|
| DATE | 03.01.2019 | HOUR | 14.34 | PLACE | Via del Limoncino - Livorno |
| OPERATOR | Geologica Toscana S.n.c. | | GPS TYPE and # | | |
| WGS84 - UTM33N LATITUDE | 4830244 | WGS84 - UTM33N LONGITUDE | 125654 | ALTITUDE | 89 m slm |
| STATION TYPE | GPA Engineering | | SENSOR TYPE 3D - 4,5 Hz | | |
| STATION # | SENSOR # | | DISK # | | |
| FILE NAME | HVSR11.saf | | POINT # | | |
| GAIN | SAMPL. FREQ | | 300 Hz | REC. DURATION | 20 min <small>minutes</small> seconds |
| WEATHER | WIND | <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | |
| CONDITIONS | RAIN | <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | |
| | Temperature (approx): | 9 _____ Remarks _____ | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | |
| TYPE | <input checked="" type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | |
| BUILDING DENSITY <input checked="" type="checkbox"/> none <input type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | |
| TRANSIENTS | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) | | | | |
| | <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | |
| | cars | trucks | pedestrians | other | distance |
| | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Trees | | | | | |
| OBSERVATIONS | | | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | |



Qualità della misura:

- Durata: rispettata
- Stazionarietà: rispettata
- Isotropia: rispettata
- Assenza di disturbi: rispettata
- Plausibilità fisica: rispettata
- Robustezza statistica: rispettata

MISURA TIPO A1

HVSR11_MS2

Peak frequency (Hz): 7.9 (±2.4)
Peak HVSR value: 2.8 (±0.4)

=== Criteria for a reliable H/V curve =====

- #1. $[f_0 > 10/Lw]$: $7.914 > 0.5$ (OK)
- #2. $[nc > 200]$: $18044 > 200$ (OK)
- #3. $[f_0 > 0.5\text{Hz}; \sigma_A(f) < 2 \text{ for } 0.5f_0 < f < 2f_0]$ (OK)

=== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range $[f_0/4, f_0]$ | $AH/V(f^-) < A_0/2$]: yes, at frequency 3.7Hz (OK)
- #2. [exists f+ in the range $[f_0, 4f_0]$ | $AH/V(f^+) < A_0/2$]: yes, at frequency 10.3Hz (OK)
- #3. $[A_0 > 2]$: $2.8 > 2$ (OK)
- #4. $[f_{\text{peak}}[Ah/v(f) \pm \sigma_A(f)] = f_0 \pm 5\%]$: (OK)
- #5. $[\sigma_{\text{maf}} < \epsilon(f_0)]$: $2.402 > 0.396$ (NO)
- #6. $[\sigma_A(f_0) < \theta(f_0)]$: $0.410 < 1.58$ (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.

window length (s) Min. freq.: 0.25Hz
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion and all HVSRs
 full output

step#3 - directivity analysis
 frequencies to highlight: Hz

3D motion
 save video

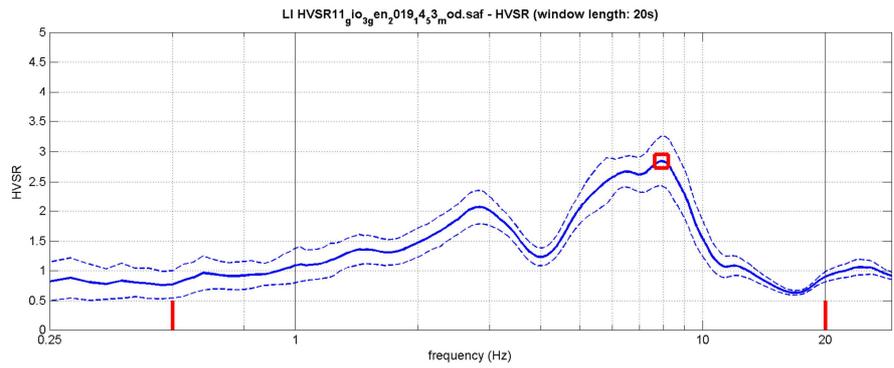
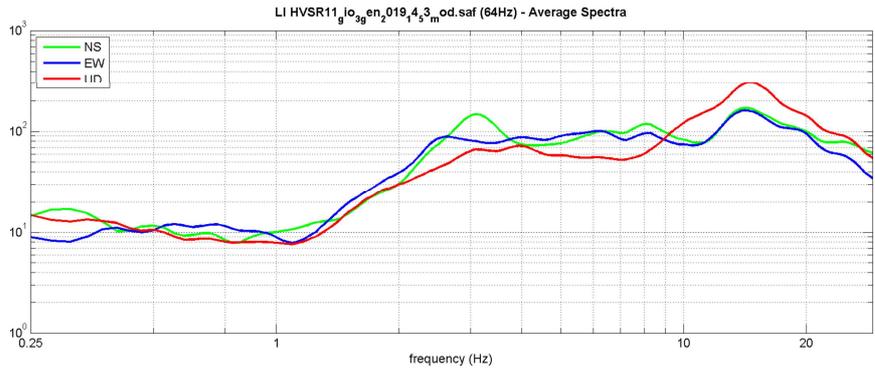
save - option#1: save HVSR as it is
 save HV from to Hz

save - option#2: picking H/V curve

quick analysis (f-Vs/4H)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

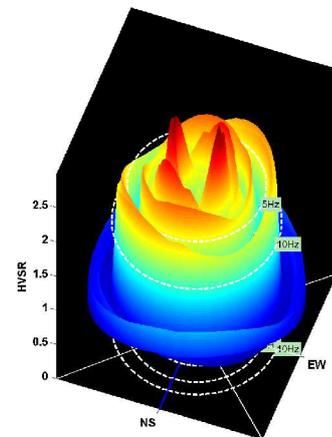
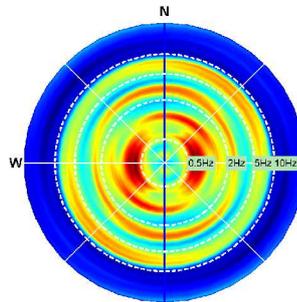
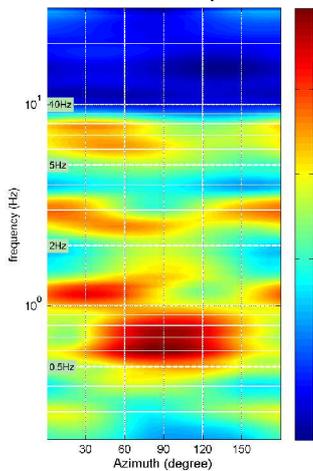
highlight a frequency
 Hz

directivity over time
 time step: s

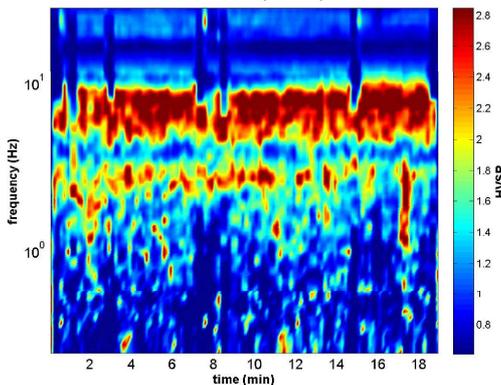


To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/a, Modeling & Picking" panels and upload the saved HV curve

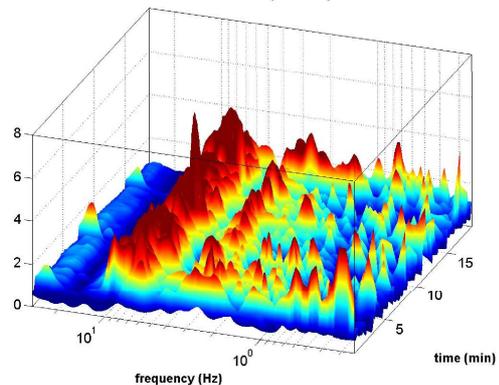
HVSR: directivity



HVSR vs Time (2D view)



HVSR vs Time (3D view)



HVSR12_MS2

| DATE 02.01.2019 | HOUR 12.26 | PLACE Via Pietro Nenni - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|----------|-------------------------------------|------------|----------|------------|----------|------|--|--|--|-------------------------------------|--|--|--------|--|-------------------------------------|--|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|---|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4828451 | WGS84 - UTM33N LONGITUDE 122199 | ALTITUDE 6 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR12.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes</small> <small>seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 12 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input checked="" type="checkbox"/> earth (<input type="checkbox"/> hard <input checked="" type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input type="checkbox"/> dry soil <input checked="" type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input type="checkbox"/> scattered <input checked="" type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td></td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | | | <input checked="" type="checkbox"/> | | | trucks | | <input checked="" type="checkbox"/> | | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | <input checked="" type="checkbox"/> | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Trees, Buildings |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

MISURA TIPO A2

HVSR12_MS2

Peak frequency (Hz): 2.5 (±6.7)

Peak HVSR value: 1.8 (±0.3)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 2.471 > 0.5 (OK)
- #2. [nc > 200]: 5733 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: yes, at frequency 0.7Hz (OK)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes, at frequency 4.9Hz (OK)
- #3. [A0 > 2]: 1.8 < 2 (NO)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (NO)
- #5. [sigmaf < epsilon(f0)]: 6.723 > 0.124 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.296 < 1.58 (OK)

step#1 (optional) - decimate

step#2 - H/V computation

window length (s) **Min. freq.: 0.25Hz**
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion and all HVSRs
 full output

step#3 - directivity analysis
 frequencies to highlight: Hz

3D motion
 save video

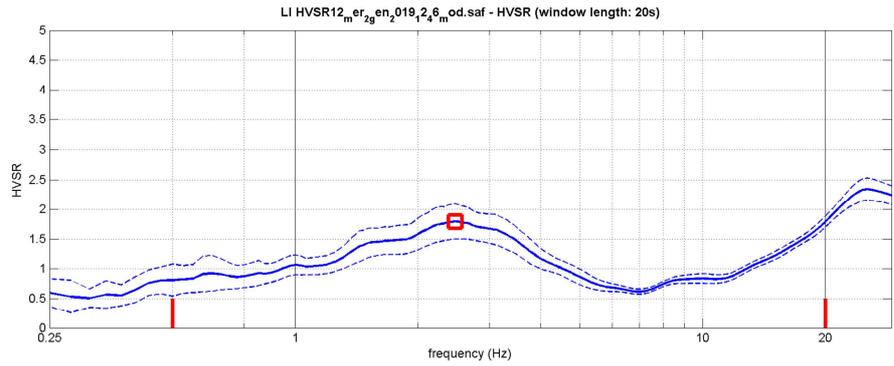
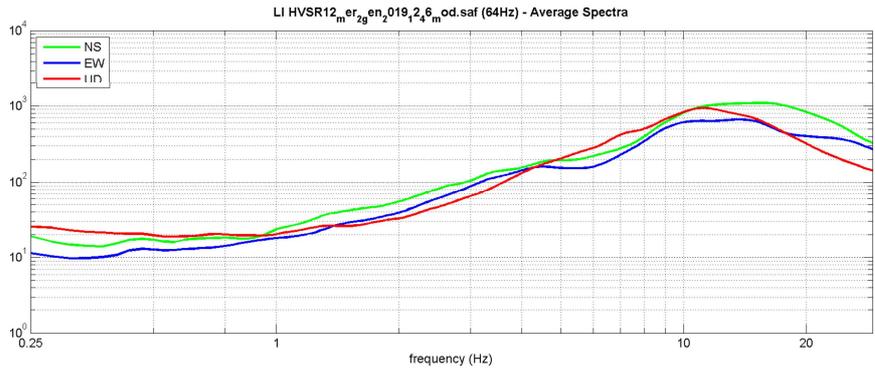
save - option#1: save HVSR as it is
 save HV from to Hz

save - option#2: picking H/V curve

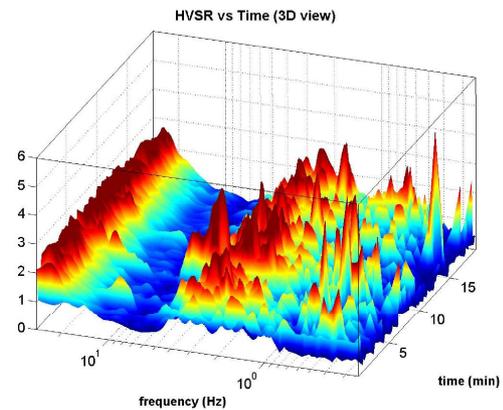
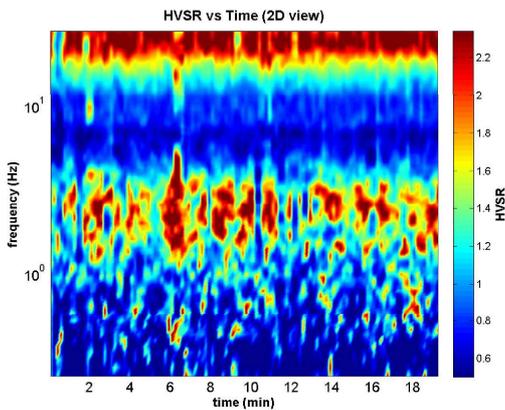
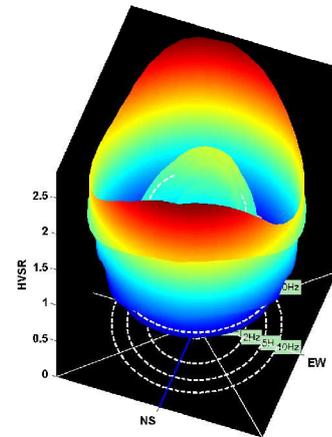
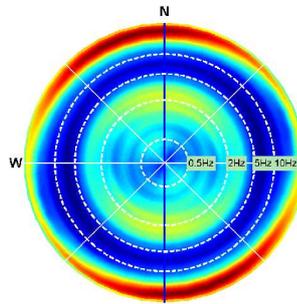
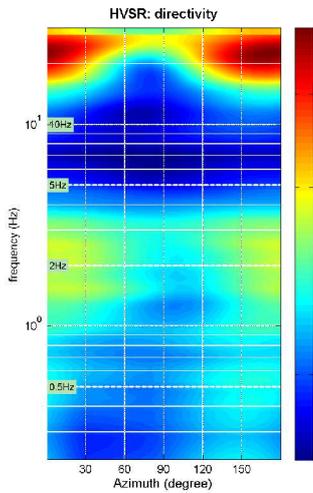
quick analysis (f-Vs/|H|)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

highlight a frequency
 Hz

directivity over time
 time step: s

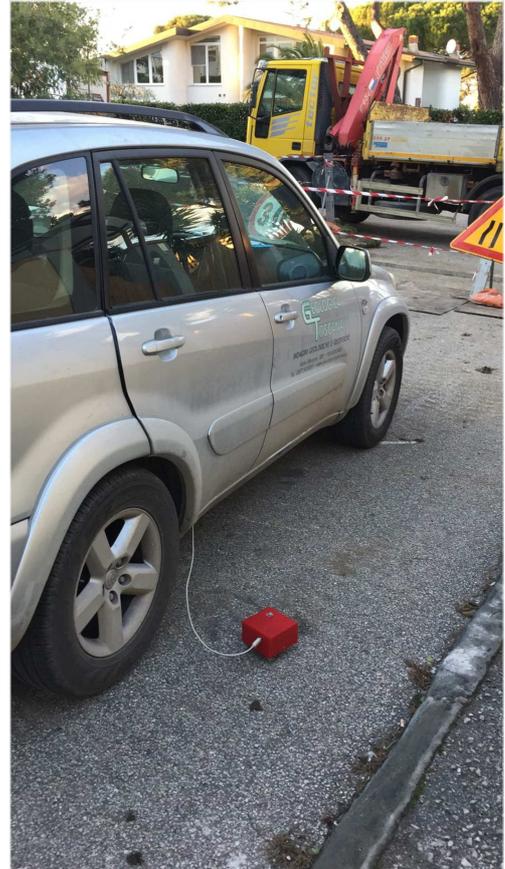


To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/a, Modeling & Picking" panels and upload the saved HV curve



HVSR13_MS2

| | | | | | | |
|--|--|---|----------|------|------------|---|
| DATE 02.01.2019 | HOUR 16.05 | PLACE Via Piero Aloisi - Livorno | | | | |
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | |
| WGS84 - UTM33N LATITUDE 4827578 | WGS84 - UTM33N LONGITUDE 123132 | ALTITUDE 46 m slm | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | |
| STATION # | SENSOR # | DISK # | | | | |
| FILE NAME HVSR13.saf | | POINT # | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes seconds</small> | | | | |
| WEATHER | WIND <input type="checkbox"/> none <input checked="" type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | |
| Temperature (approx): 10 Remarks _____ | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | |
| TYPE | <input checked="" type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ | | | | | |
| <input type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input type="checkbox"/> scattered <input checked="" type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | |
| TRANSIENTS | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) |
| | none | few | moderate | many | very dense | distance |
| cars | <input checked="" type="checkbox"/> | | | | | |
| trucks | <input checked="" type="checkbox"/> | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | |
| | | | | | | NEARBY STRUCTURES (trees, polls, buildings, bridges, underground structures...) |
| | | | | | | Trees, Buildings |
| OBSERVATIONS | | | | | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> |



Qualità della misura:

- Durata: rispettata
- Stazionarietà: rispettata
- Isotropia: rispettata
- Assenza di disturbi: rispettata
- Plausibilità fisica: rispettata
- Robustezza statistica: rispettata

MISURA TIPO A1

HVSR13_MS2

Peak frequency (Hz): 6.1 (±6.9)
Peak HVSR value: 2.0 (±0.7)

=== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 6.131 > 0.5 (OK)
- #2. [nc > 200]: 14347 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

=== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: yes (considering standard deviations), at frequency 2.2Hz (OK)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: (NO)
- #3. [A0 > 2]: 2.0 > 2 (OK)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (NO)
- #5. [sigmaf < epsilon(f0)]: 6.858 > 0.307 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.727 < 1.58 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.

window length (s) Min. freq.: 0.25Hz
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion and all HVSRs
 full output

step#3 - directivity analysis
 frequencies to highlight: Hz

3D motion
 save video

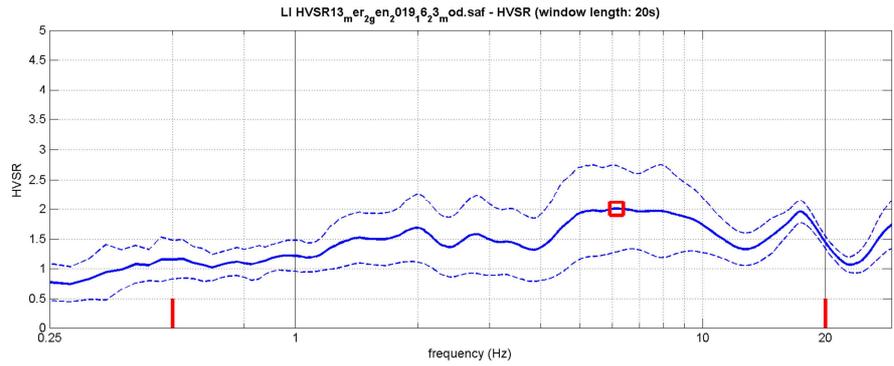
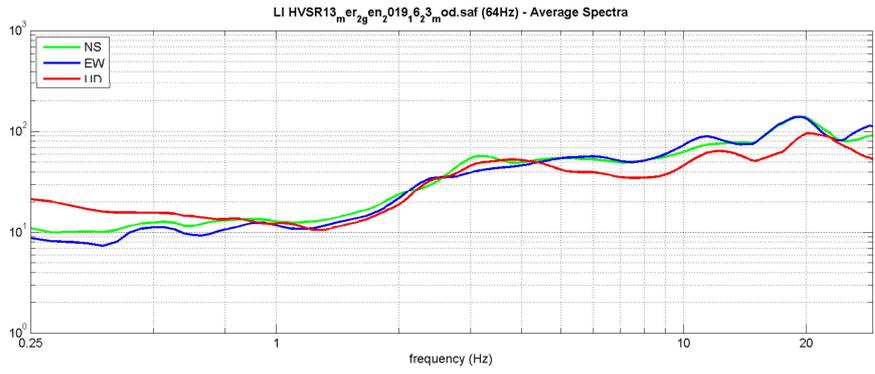
save - option#1: save HVSR as it is
 save HV from to Hz

save - option#2: picking H/V curve

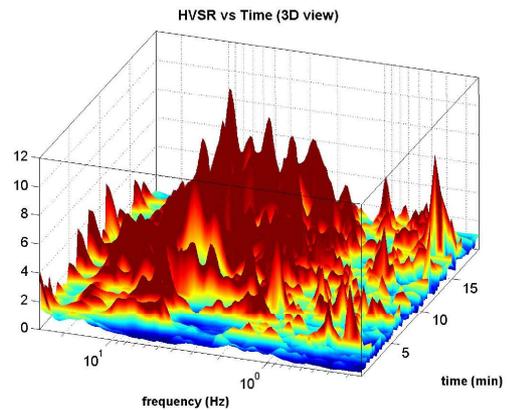
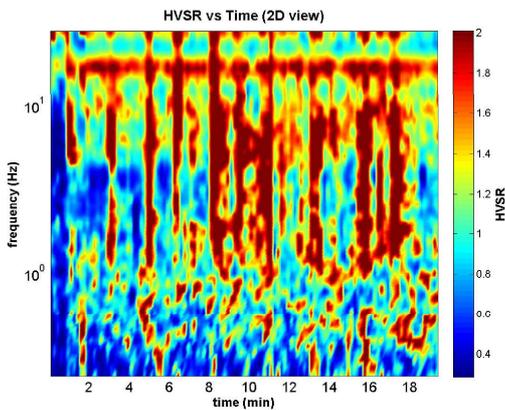
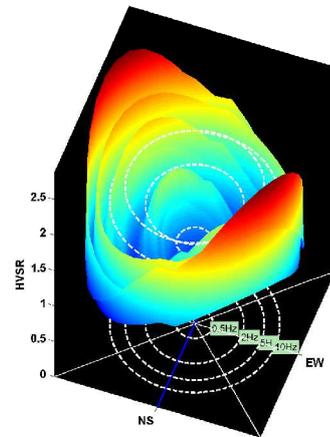
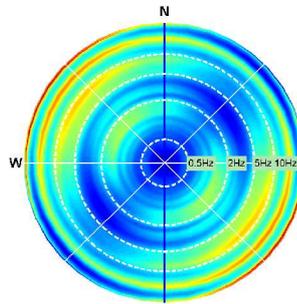
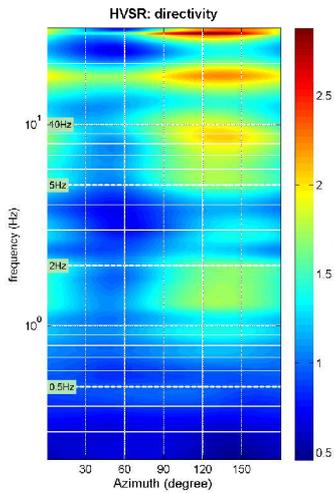
quick analysis (f-Vs/H)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

highlight a frequency
 Hz

directivity over time
 time step: s



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/a, Modeling & Picking" panels and upload the saved HV curve



HVSR14_MS2

| | | | | | | |
|--|--|---|----------|------|------------|---|
| DATE 02.01.2019 | HOUR 15.31 | PLACE Via 25 Aprile - Livorno | | | | |
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | |
| WGS84 - UTM33N LATITUDE 4827089 | WGS84 - UTM33N LONGITUDE 123150 | ALTITUDE 57 m slm | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | |
| STATION # | SENSOR # | DISK # | | | | |
| FILE NAME HVSR14.saf | | POINT # | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes</small> <small>seconds</small> | | | | |
| WEATHER | WIND <input type="checkbox"/> none <input checked="" type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | |
| Temperature (approx): 13 Remarks _____ | | | | | | |
| GROUND | <input checked="" type="checkbox"/> earth (<input type="checkbox"/> hard <input checked="" type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | |
| TYPE | <input type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input checked="" type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input type="checkbox"/> scattered <input checked="" type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | |
| TRANSIENTS | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) |
| | none | few | moderate | many | very dense | distance |
| | <input checked="" type="checkbox"/> | | | | | |
| cars | <input checked="" type="checkbox"/> | | | | | |
| trucks | <input checked="" type="checkbox"/> | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | |
| | | | | | | NEARBY STRUCTURES (trees, polls, buildings, bridges, underground structures...) |
| | | | | | | Trees, Buildings |
| OBSERVATIONS | | | | | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> |



Qualità della misura:

- Durata: rispettata
- Stazionarietà: rispettata
- Isotropia: rispettata
- Assenza di disturbi: rispettata
- Plausibilità fisica: rispettata
- Robustezza statistica: rispettata

MISURA TIPO A1

Peak frequency (Hz): 1.7 (±4.4)
Peak HVSR value: 4.0 (±1.2)

=== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 1.658 > 0.5 (OK)
- #2. [nc > 200]: 3913 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

=== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: yes, at frequency 0.5Hz (OK)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes (considering standard deviations), at frequency Hz (OK)
- #3. [A0 > 2]: 4.0 > 2 (OK)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (NO)
- #5. [sigmaf < epsilon(f0)]: 4.434 > 0.166 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 1.250 < 1.78 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.

window length (s) Min. freq.: 0.25Hz
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion and all HVSRs
 full output

step#3 - directivity analysis
 frequencies to highlight: Hz

3D motion
 save video

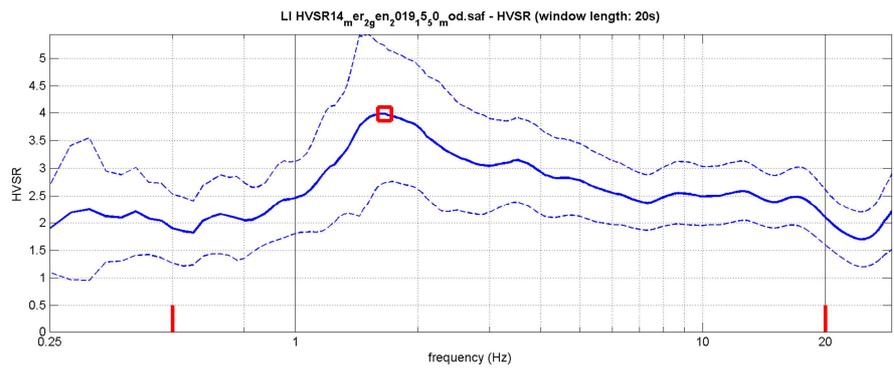
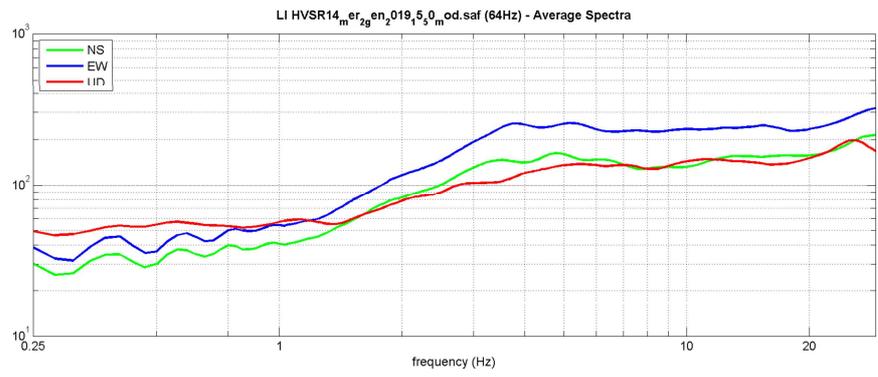
save - option#1: save HVSR as it is
 save HV from to Hz

save - option#2: picking HV curve

quick analysis (f-Vs/4H)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

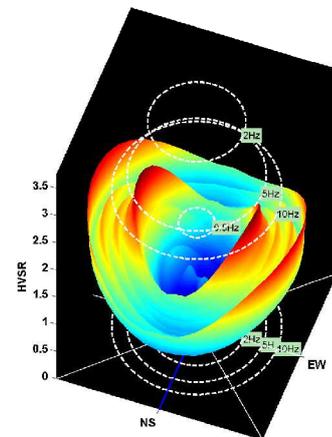
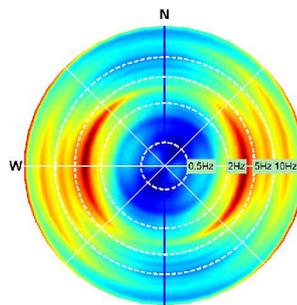
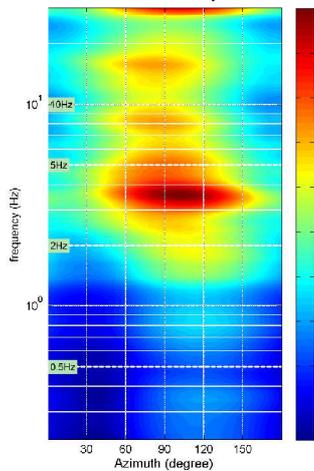
highlight a frequency
 Hz

directivity over time
 time step: s

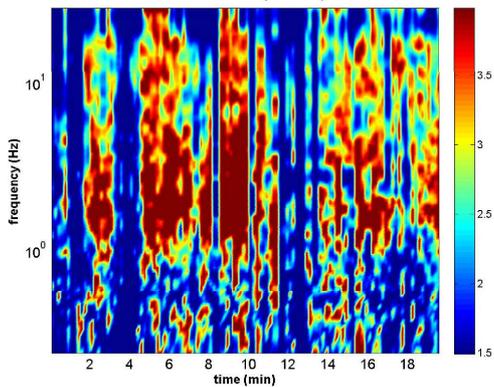


To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/a, Modeling & Picking" panels and upload the saved HV curve

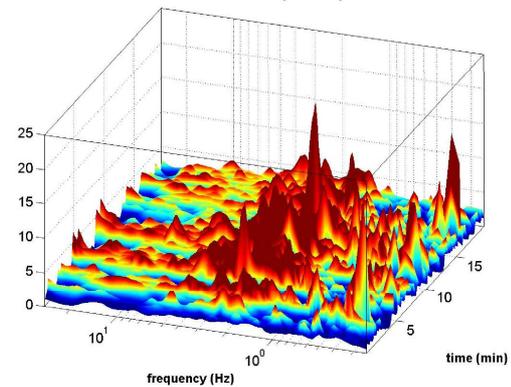
HVSR: directivity



HVSR vs Time (2D view)



HVSR vs Time (3D view)



HVSR15_MS2

| DATE 02.01.2019 | hour 11.58 | PLACE Via del Pino - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|----------|------|------------|----------|------------|----------|------|--|-------------------------------------|--|--|--|--|--------|-------------------------------------|--|--|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4827650 | WGS84 - UTM33N LONGITUDE 123869 | ALTITUDE 61 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR15.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes</small> <small>seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 12 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND TYPE | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <input checked="" type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input checked="" type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | <input checked="" type="checkbox"/> | | | | | trucks | <input checked="" type="checkbox"/> | | | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | <input checked="" type="checkbox"/> | | | | | |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

- Durata: rispettata
- Stazionarietà: rispettata
- Isotropia: rispettata
- Assenza di disturbi: rispettata
- Plausibilità fisica: rispettata
- Robustezza statistica: rispettata

MISURA TIPO A1

Peak frequency (Hz): 5.8 (±2.8)
Peak HVSR value: 2.4 (±0.5)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 5.818 > 0.5 (OK)
- #2. [nc > 200]: 13731 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: yes, at frequency 2.5Hz (OK)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes, at frequency 10.8Hz (OK)
- #3. [A0 > 2]: 2.4 > 2 (OK)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (NO)
- #5. [sigmaAf < epsilon(f0)]: 2.810 > 0.291 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.484 < 1.58 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.

window length (s) Min. freq.: 0.25Hz
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion and all HVSRs
 full output

step#3 - directivity analysis
 frequencies to highlight: Hz

3D motion
 save video

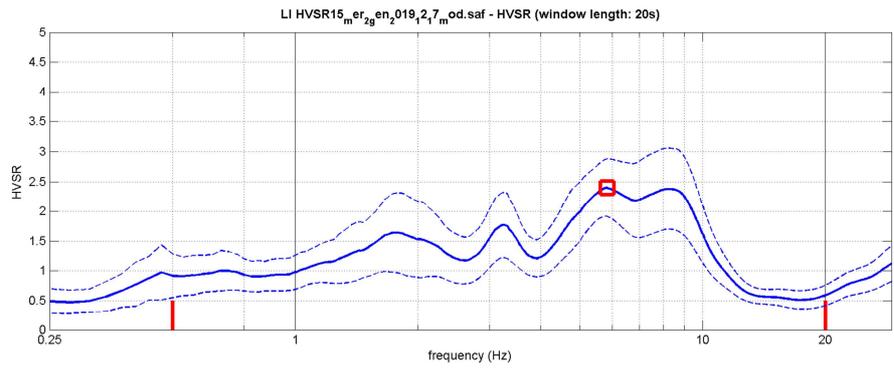
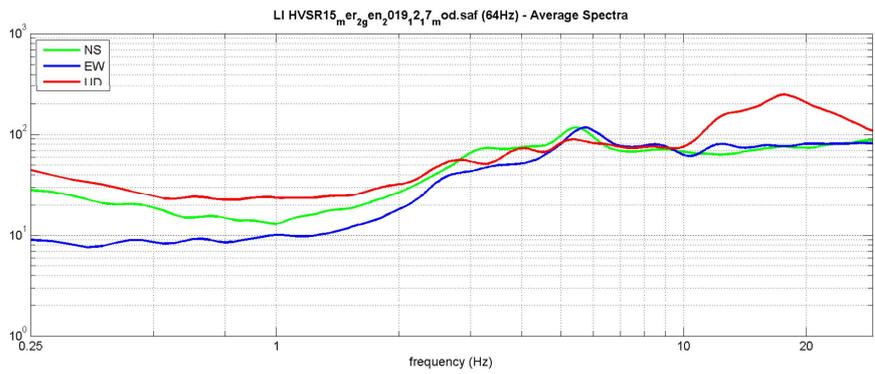
save - option#1: save HVSR as it is
 save HV from to Hz

save - option#2: picking H/V curve

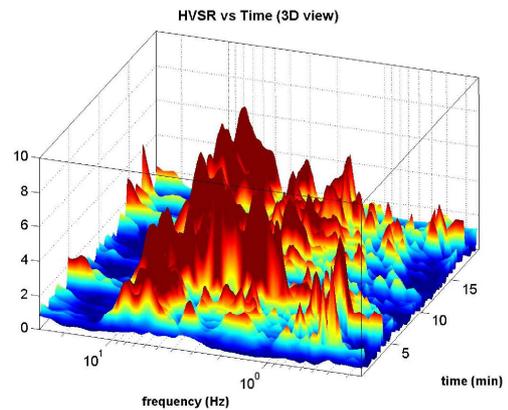
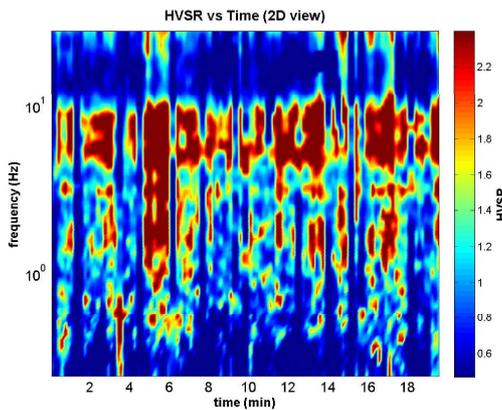
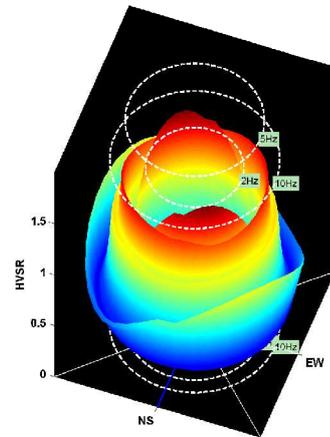
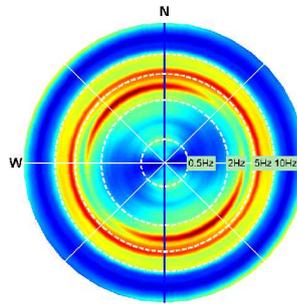
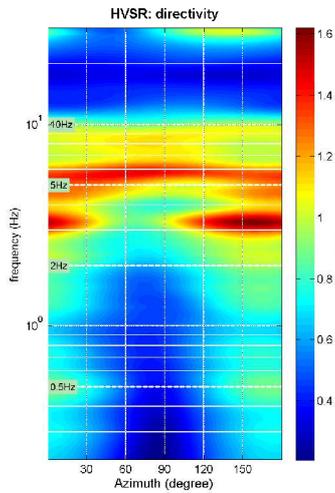
quick analysis (f-Vs/|H|)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

highlight a frequency
 Hz

directivity over time
 time step: s



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/a, Modeling & Picking" panels and upload the saved HV curve



HVSR16_MS2

| DATE 02.01.2019 | HOUR 14.49 | PLACE Largo Christian Bartoli - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|------|-----|----------|------|------------|----------|------|--|--|--|--|--|--|--------|--|--|--|--|--|--|-------------|--|--|--|--|--|--|-------|--|--|--|--|--|--|--|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4828144 | WGS84 - UTM33N LONGITUDE 121864 | ALTITUDE 5 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR16.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes</small> <small>seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input checked="" type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 13 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input checked="" type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input checked="" type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | | | | | | trucks | | | | | | | pedestrians | | | | | | | other | | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Trees |
| | | | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

- Durata: rispettata
- Stazionarietà: rispettata
- Isotropia: rispettata
- Assenza di disturbi: rispettata
- Plausibilità fisica: rispettata
- Robustezza statistica: rispettata

MISURA TIPO A1

Peak frequency (Hz): 2.3 (±2.3)
 Peak HVSR value: 3.6 (±0.9)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 2.283 > 0.5 (OK)
- #2. [nc > 200]: 5389 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: yes, at frequency 0.8Hz (OK)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes, at frequency 5.2Hz (OK)
- #3. [A0 > 2]: 3.6 > 2 (OK)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaf < epsilon(f0)]: 2.324 > 0.114 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.930 < 1.58 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.

window length (s) Min. freq.: 0.25Hz
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion and all HVSRs
 full output

step#3 - directivity analysis
 frequencies to highlight: Hz

3D motion
 save video

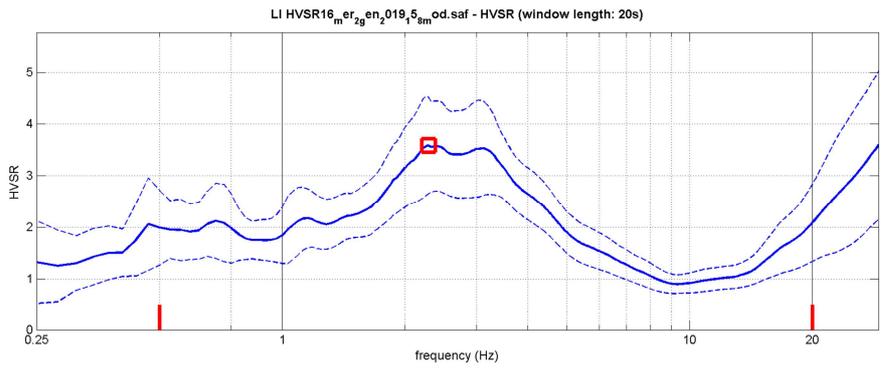
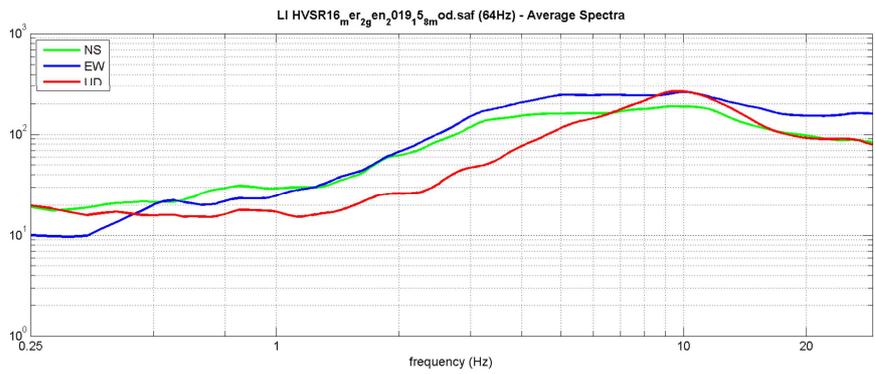
save - option#1: save HVSR as it is
 save HV from to Hz

save - option#2: picking H/V curve

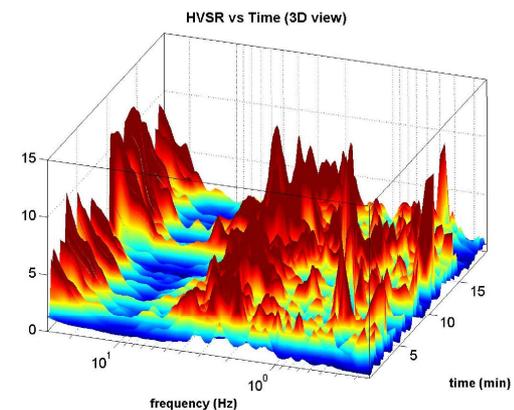
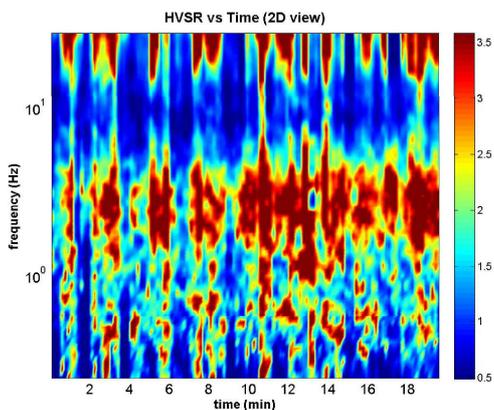
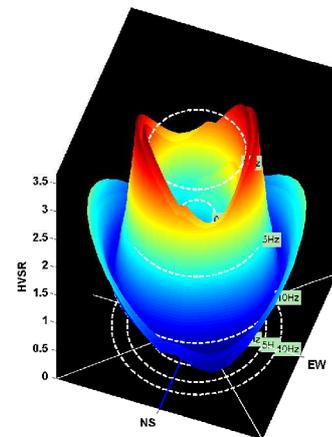
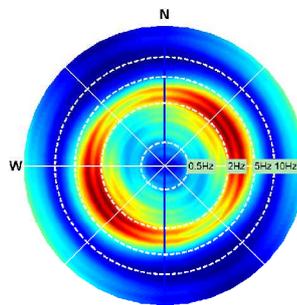
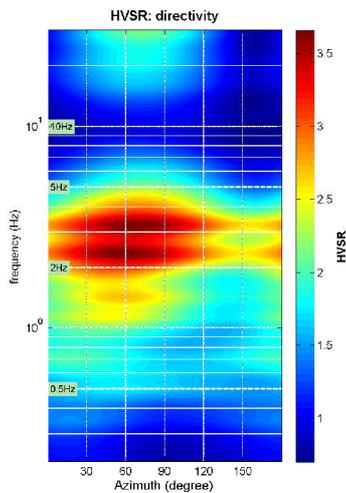
quick analysis (f-Vs/H)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

highlight a frequency
 Hz

directivity over time
 time step: s



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/ra, Modeling & Picking" panels and upload the saved HV curve



HVSR17_MS2

| DATE 14.01.2019 | HOUR 15.30 | PLACE Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|------|-----|----------|------|------------|----------|------|--|--|--|--|--|--|--------|--|--|--|--|--|--|-------------|--|--|--|--|--|--|-------|--|--|--|--|--|--|--|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4834213 | WGS84 - UTM33N LONGITUDE 126352 | ALTITUDE 48 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR17.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 13 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input checked="" type="checkbox"/> soft) <input checked="" type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input checked="" type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input checked="" type="checkbox"/> none <input type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | | | | | | trucks | | | | | | | pedestrians | | | | | | | other | | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Trees |
| | | | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

MISURA TIPO A2

HVSR17_MS2

Peak frequency (Hz): 0.6 (±4.2)
Peak HVSR value: 1.7 (±0.2)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 0.563 > 0.5 (OK)
- #2. [nc > 200]: 1295 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: (NO)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: (NO)
- #3. [A0 > 2]: 1.7 < 2 (NO)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (NO)
- #5. [sigmaAf < epsilon(f0)]: 4.216 > 0.084 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.191 < 2 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.
 window length (s)
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion (raw data)
 full output

step#3a (optional) - directivity analysis
 max freq: Hz

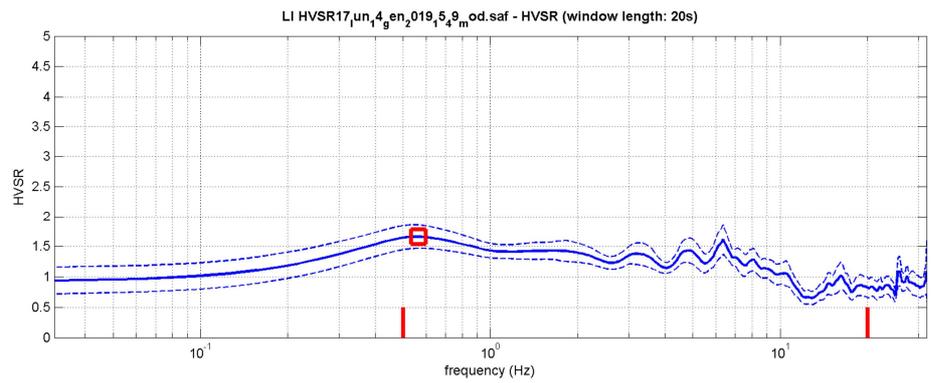
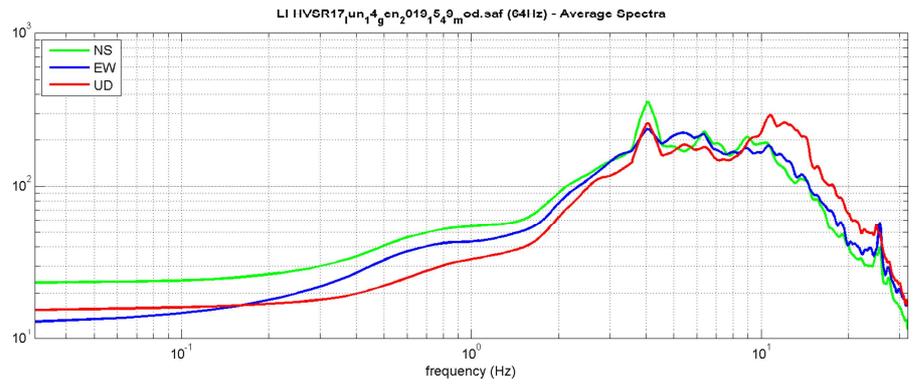
step#3b (optional) - directivity over time
 time step: s

save - option#1: save HVSR as it is
 save HV from to Hz

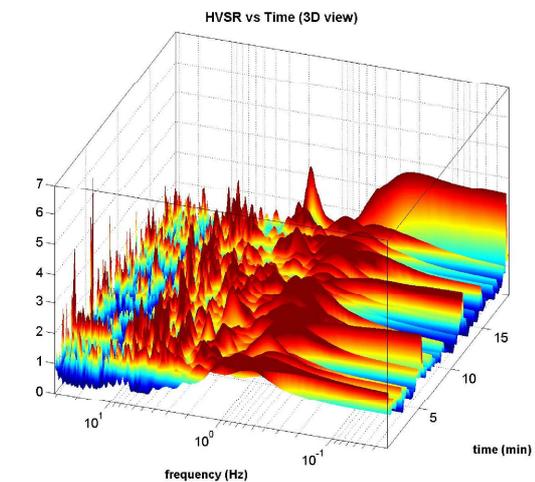
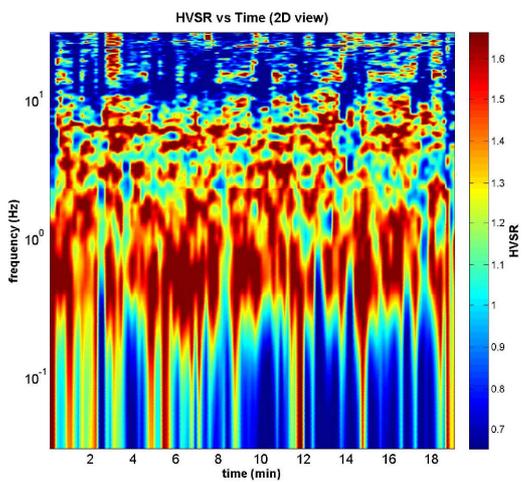
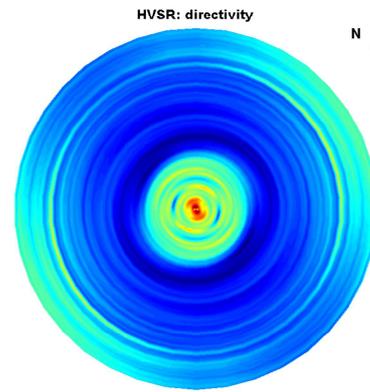
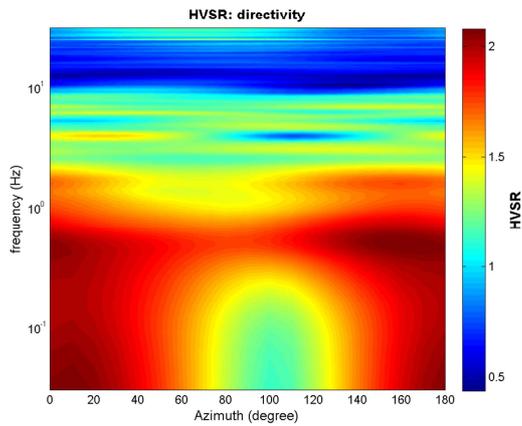
save - option#2: picking H/V curve

quick analysis (f=Vs/4H)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

www.winmasw.com

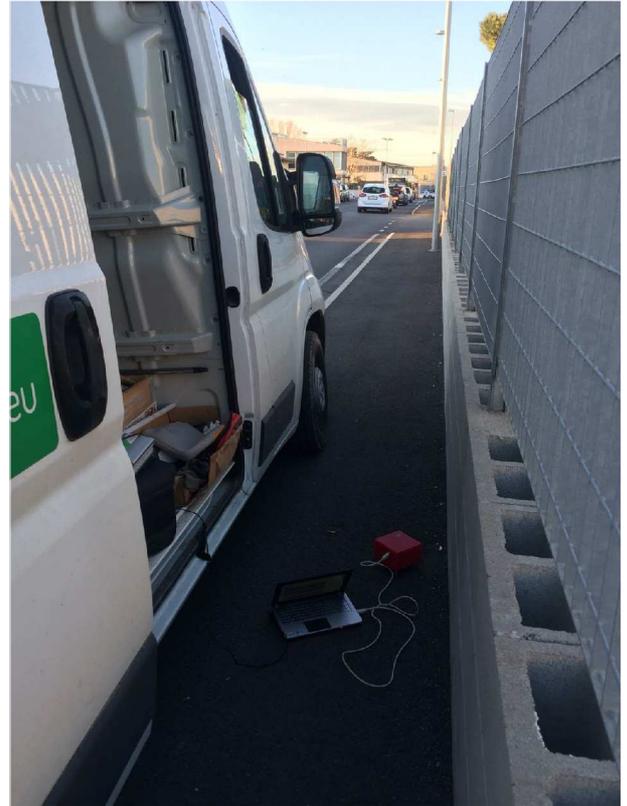


To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/s, Modeling & Picking" panels and upload the saved HV curve



HVSR18_MS2

| DATE 10.01.2019 | HOUR 16.20 | PLACE Via Mattei Teresa - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|-------------------------------------|------|------------|----------|------------|----------|------|--|--|-------------------------------------|--|--|--|--------|--|-------------------------------------|--|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|--|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4834043 | WGS84 - UTM33N LONGITUDE 123439 | ALTITUDE 11 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR18.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 9 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input checked="" type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input type="checkbox"/> scattered <input checked="" type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | | <input checked="" type="checkbox"/> | | | | trucks | | <input checked="" type="checkbox"/> | | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | <input checked="" type="checkbox"/> | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Buildings |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

MISURA TIPO A2

HVSR18_MS2

Peak frequency (Hz): 1.3 (±1.3)

Peak HVSR value: 1.3 (±0.1)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 1.314 > 0.5 (OK)
- #2. [nc > 200]: 2838 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: (NO)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: (NO)
- #3. [A0 > 2]: 1.3 < 2 (NO)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaf < epsilon(f0)]: 1.274 > 0.131 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.140 < 1.78 (OK)

step#1 (optional) - decimate
 64Hz

step#2 - H/V computation
 both Rad. & Tr.
 20 window length (s)
 8 tapering (%)
 9 outlier tolerance threshold
 15%
 show particle motion (raw data)
 full output

step#3a (optional) - directivity analysis
 max freq: 32 Hz

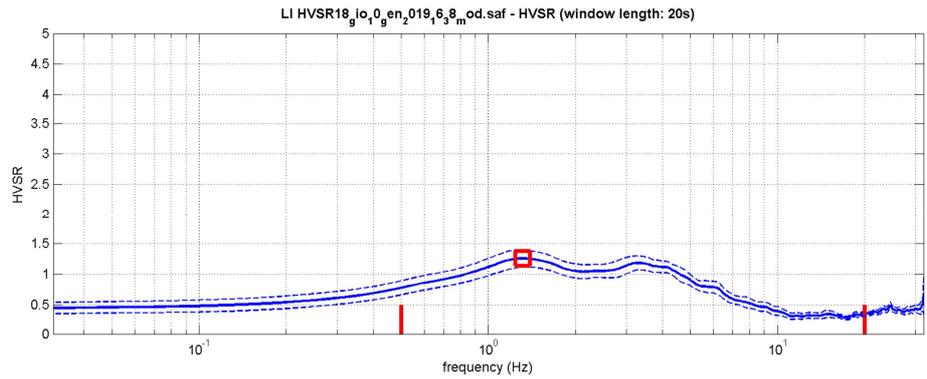
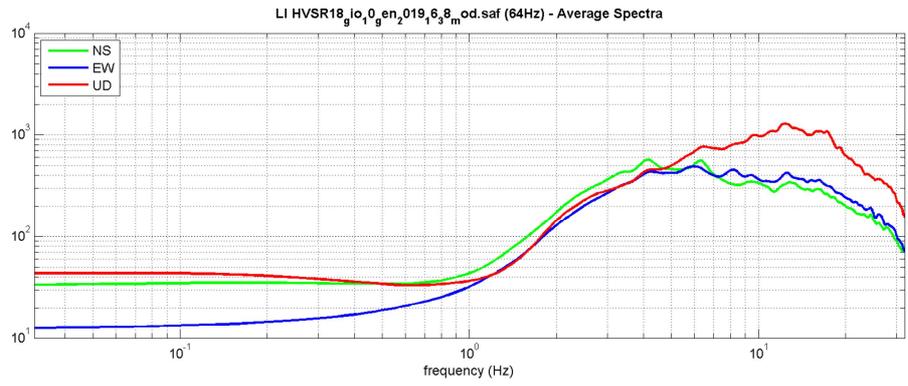
step#3b (optional) - directivity over time
 time step: 60 s

save - option#1: save HVSr as it is
 save HV/ from 0.05 to 64 Hz

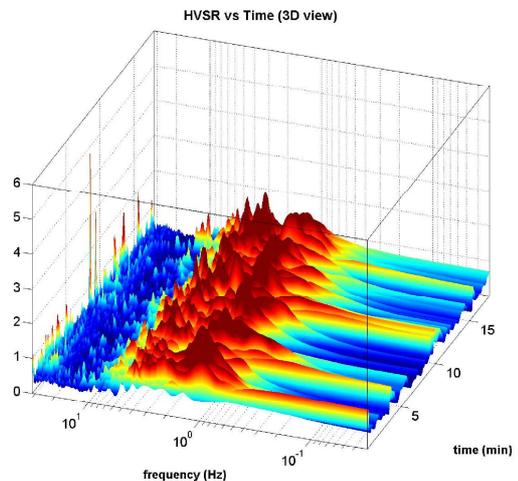
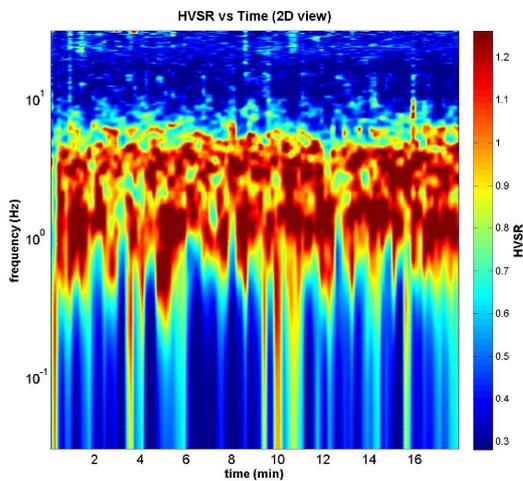
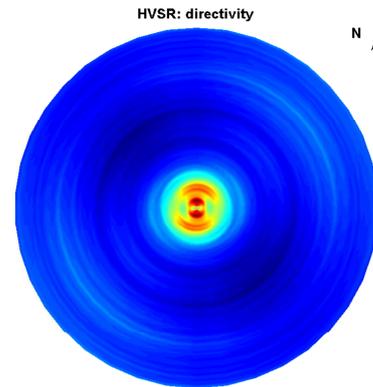
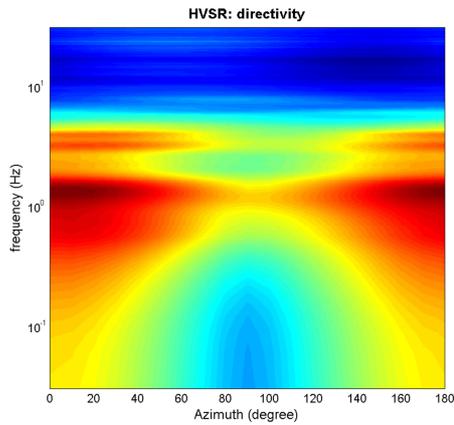
save - option#2: picking H/V curve

quick analysis (f=Vs/4H)
 180 average Vs (m/s) (from surface to bedrock)
 20 depth of the bedrock (m)
 1000 Vs of the bedrock

www.winmasw.com



To model the HVSr (also jointly with MASW or ReM/ESAC data), save the HV curve, go to the "Velocity Spectrum/s, Modeling & Picking" panels and upload the saved HV curve



HVSR19_MS2

| DATE 03.01.2019 | HOUR 15.31 | PLACE Via del Giaggiolo - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|----------|------|------------|----------|------|------------|----------|------|-------------------------------------|--|--|--|--|--|--------|-------------------------------------|--|--|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4830766 | WGS84 - UTM33N LONGITUDE 124135 | ALTITUDE 33 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR19.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 7 _____ Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input checked="" type="checkbox"/> earth (<input checked="" type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input checked="" type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input checked="" type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | none | few | moderate | many | very dense | distance | cars | <input checked="" type="checkbox"/> | | | | | | trucks | <input checked="" type="checkbox"/> | | | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | <input checked="" type="checkbox"/> | | | | | |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

- Durata: rispettata
- Stazionarietà: rispettata
- Isotropia: rispettata
- Assenza di disturbi: rispettata
- Plausibilità fisica: rispettata
- Robustezza statistica: rispettata

MISURA TIPO A1

HVSR19_MS2

Peak frequency (Hz): 1.0 (±0.7)
Peak HVSR value: 2.0 (±0.4)

=== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 1.001 > 0.5 (OK)
- #2. [nc > 200]: 2262 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

=== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: yes, at frequency 0.5Hz (OK)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes (considering standard deviations), at frequency Hz (OK)
- #3. [A0 > 2]: 2.0 < 2 (NO)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaf < epsilon(f0)]: 0.695 > 0.100 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.451 < 1.78 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.

window length (s) Min. freq.: 0.25Hz
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion and all HVSRs
 full output

step#3 - directivity analysis
 frequencies to highlight: Hz

3D motion
 save video

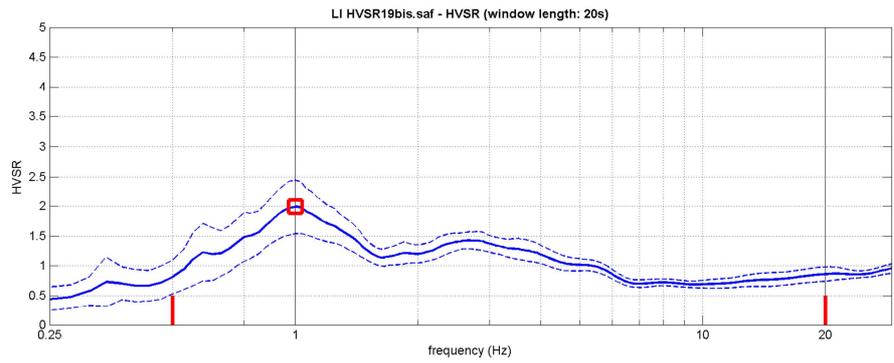
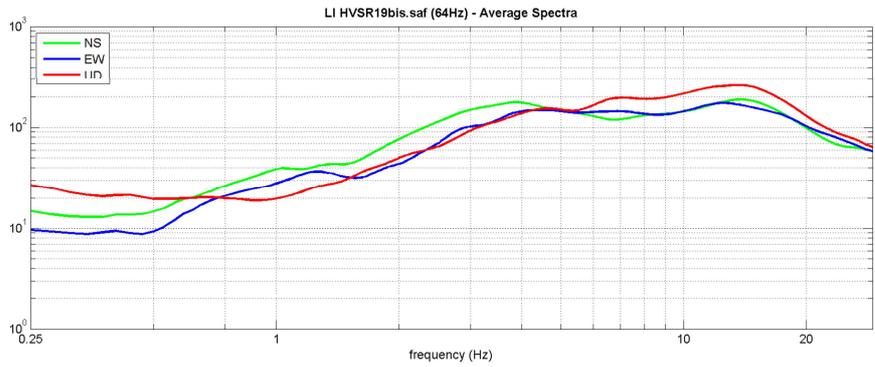
save - option#1: save HVSR as it is
 save HV from to Hz

save - option#2: picking H/V curve

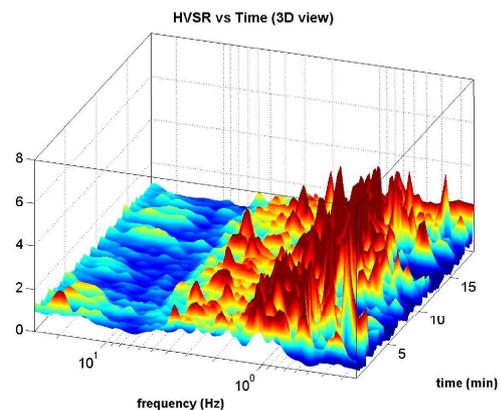
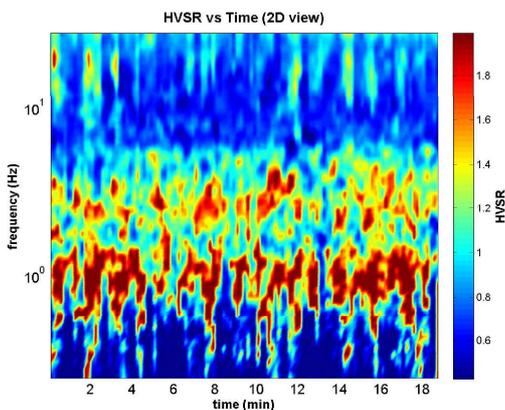
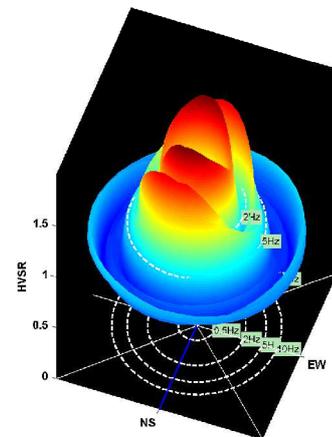
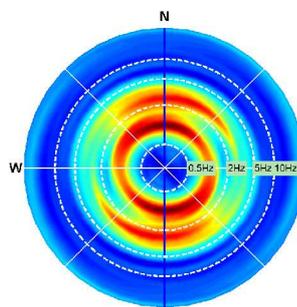
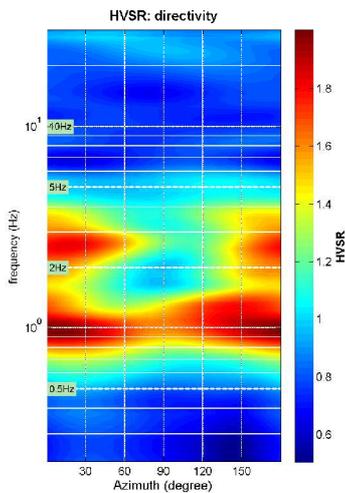
quick analysis (f-Vs/|H|)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

highlight a frequency
 Hz

directivity over time
 time step: s



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/a, Modeling & Picking" panels and upload the saved HV curve



HVSR20_MS2

| DATE 14.01.2019 | HOUR 10.35 | PLACE Via C. Filippelli - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|----------|------|------------|----------|------|------------|----------|------|--|--|--|--|--|--|--------|--|--|--|--|--|--|-------------|--|--|--|--|--|--|-------|--|--|--|--|--|--|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4830939 | WGS84 - UTM33N LONGITUDE 123899 | ALTITUDE 32 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR20.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes</small> <small>seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Temperature (approx): 11 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND TYPE | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input checked="" type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) <input type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input checked="" type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input checked="" type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | none | few | moderate | many | very dense | distance | cars | | | | | | | trucks | | | | | | | pedestrians | | | | | | | other | | | | | | |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Buildings | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

- Durata: rispettata
- Stazionarietà: rispettata
- Isotropia: rispettata
- Assenza di disturbi: rispettata
- Plausibilità fisica: rispettata
- Robustezza statistica: rispettata

MISURA TIPO A1

HVSR20_MS2

Peak frequency (Hz): 0.8 (±0.5)
Peak HVSR value: 2.7 (±0.3)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 0.845 > 0.5 (OK)
- #2. [nc > 200]: 1959 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: (NO)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes, at frequency 1.9Hz (OK)
- #3. [A0 > 2]: 2.7 > 2 (OK)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaf < epsilon(f0)]: 0.534 > 0.127 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.254 < 2 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.
 window length (s)
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion (raw data)
 full output

step#3a (optional) - directivity analysis
 max freq: Hz

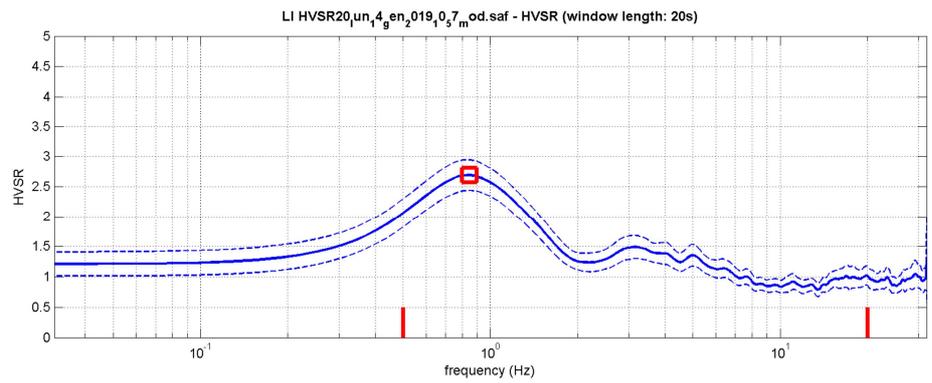
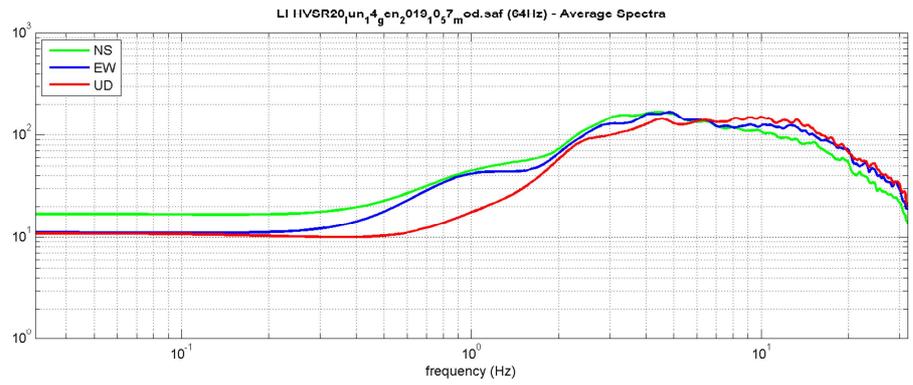
step#3b (optional) - directivity over time
 time step: s

save - option#1: save HVSR as it is
 save HV from to Hz

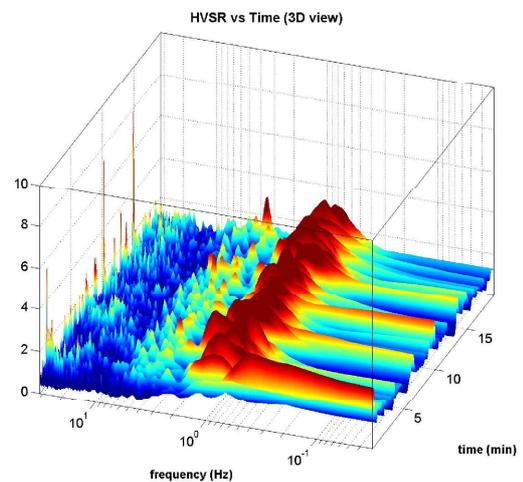
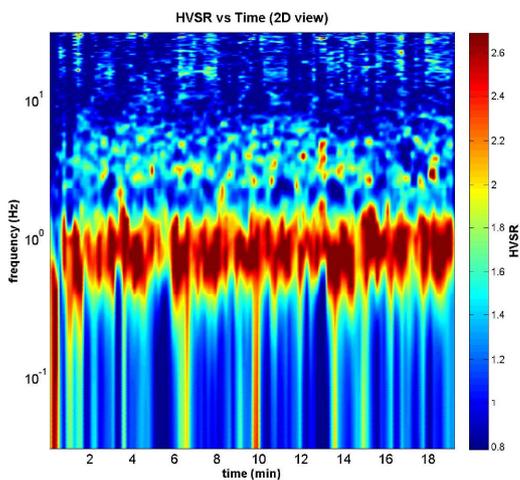
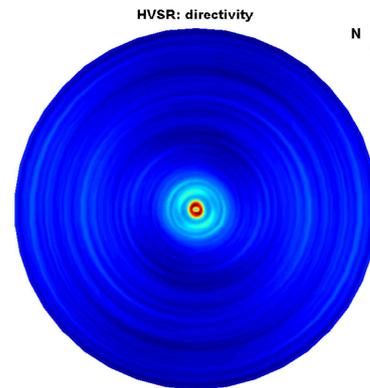
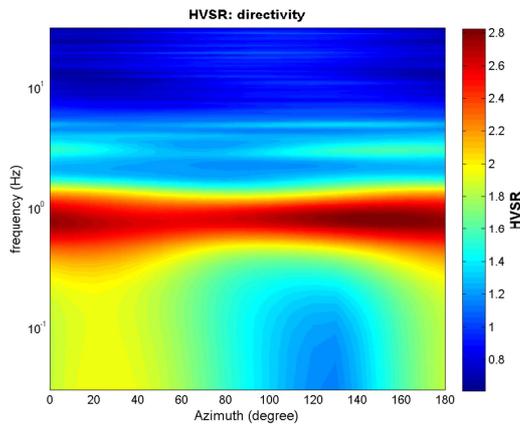
save - option#2: picking H/V curve

quick analysis (f=Vs/4H)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

www.winmasw.com



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/s, Modeling & Picking" panels and upload the saved HV curve



HVSR21_MS2

| DATE 14.01.2019 | HOUR 13.20 | PLACE Via della Padula - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|----------|------|------------|----------|------------|----------|------|--|-------------------------------------|--|--|--|--|--------|-------------------------------------|--|--|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|--|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4831650 | WGS84 - UTM33N LONGITUDE 124241 | ALTITUDE 36 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR21.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 12 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input checked="" type="checkbox"/> grass = (<input type="checkbox"/> short <input checked="" type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input checked="" type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input checked="" type="checkbox"/> none <input type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | <input checked="" type="checkbox"/> | | | | | trucks | <input checked="" type="checkbox"/> | | | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | <input checked="" type="checkbox"/> | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Trees |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

- Durata: rispettata
- Stazionarietà: rispettata
- Isotropia: rispettata
- Assenza di disturbi: rispettata
- Plausibilità fisica: rispettata
- Robustezza statistica: rispettata

MISURA TIPO A1

HVSR21_MS2

Peak frequency (Hz): 2.7 (±0.7)
Peak HVSR value: 3.1 (±0.4)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 2.690 > 0.5 (OK)
- #2. [nc > 200]: 6187 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: (NO)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes, at frequency 4.1Hz (OK)
- #3. [A0 > 2]: 3.1 > 2 (OK)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaf < epsilon(f0)]: 0.742 > 0.135 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.360 < 1.58 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.
 window length (s)
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion (raw data)
 full output

step#3a (optional) - directivity analysis
 max freq: Hz

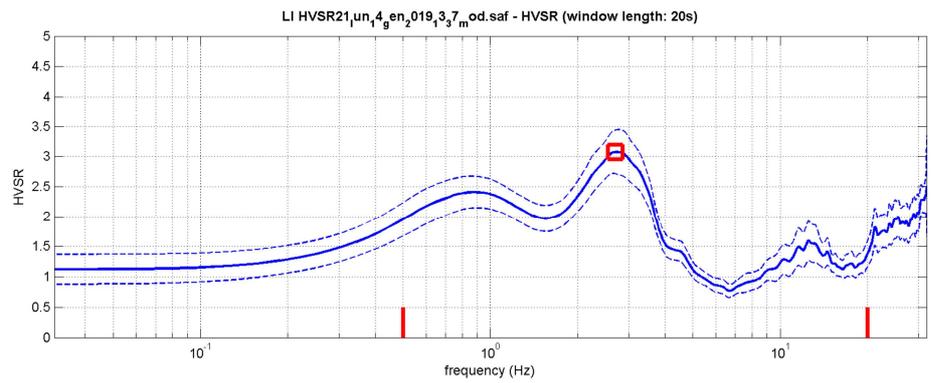
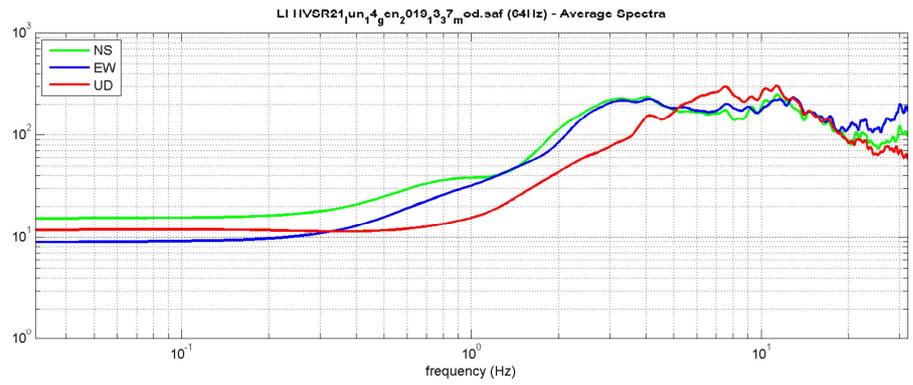
step#3b (optional) - directivity over time
 time step: s

save - option#1: save HVSR as it is
 save HV from to Hz

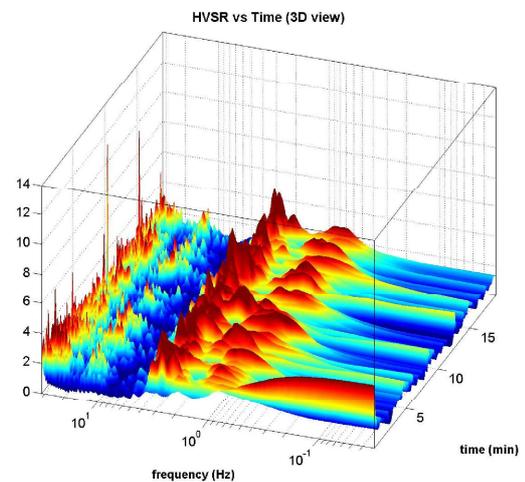
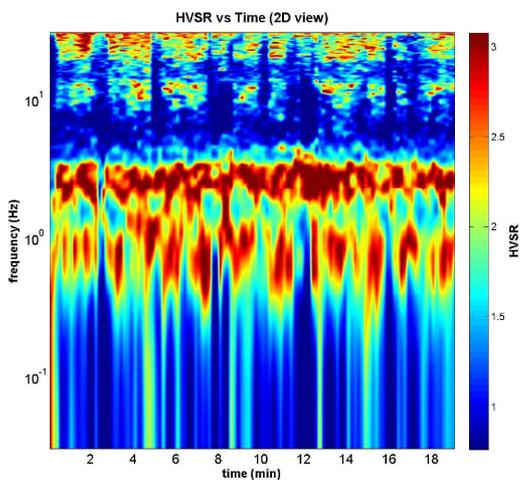
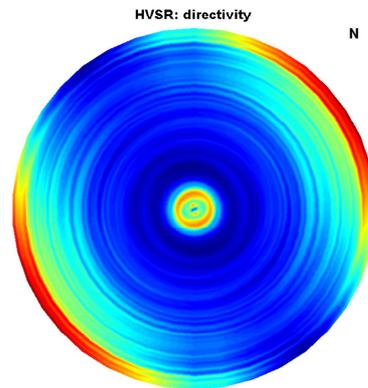
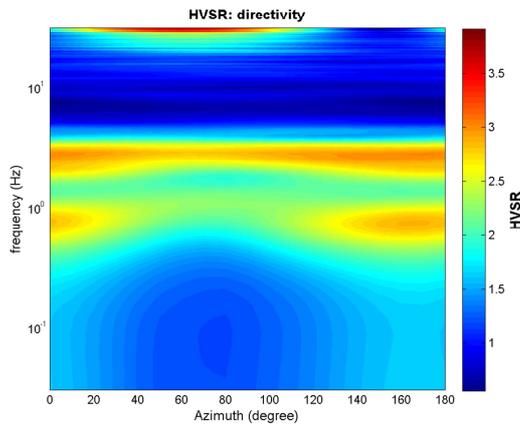
save - option#2: picking H/V curve

quick analysis (f=Vs/4H)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

www.winmasw.com



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/s, Modeling & Picking" panels and upload the saved HV curve



HVSR22_MS2

| DATE 14.01.2019 | HOOR 11.00 | PLACE Via Delle Erbe - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|------|-----|----------|------|------------|----------|------|--|-------------------------------------|--|--|--|--|--------|-------------------------------------|--|--|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|--|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4831022 | WGS84 - UTM33N LONGITUDE 123549 | ALTITUDE 27 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR22.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 11 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input checked="" type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input checked="" type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input type="checkbox"/> scattered <input checked="" type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | <input checked="" type="checkbox"/> | | | | | trucks | <input checked="" type="checkbox"/> | | | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | <input checked="" type="checkbox"/> | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Buildings |
| | | | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

- Durata: rispettata
- Stazionarietà: rispettata
- Isotropia: rispettata
- Assenza di disturbi: rispettata
- Plausibilità fisica: rispettata
- Robustezza statistica: rispettata

MISURA TIPO A1

HVSR22_MS2

Peak frequency (Hz): 0.8 (±0.1)
 Peak HVSR value: 2.5 (±0.2)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 0.751 > 0.5 (OK)
- #2. [nc > 200]: 1652 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: (NO)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes, at frequency 2.2Hz (OK)
- #3. [A0 > 2]: 2.5 > 2 (OK)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaf < epsilon(f0)]: 0.129 > 0.113 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.233 < 2 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.
 window length (s)
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion (raw data)
 full output

step#3a (optional) - directivity analysis
 max freq: Hz

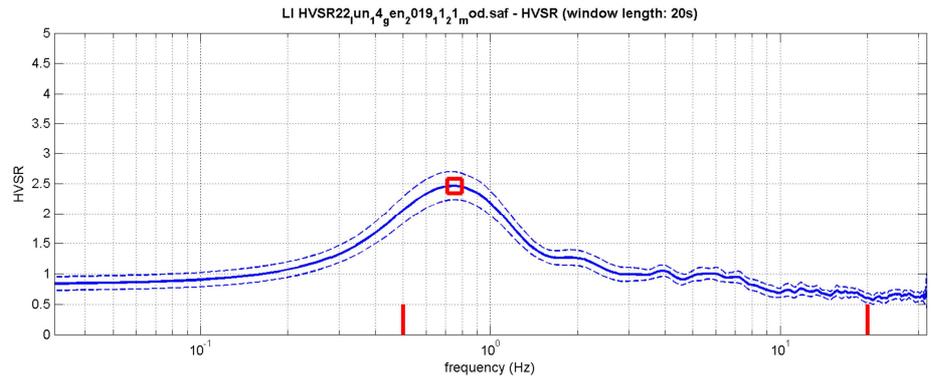
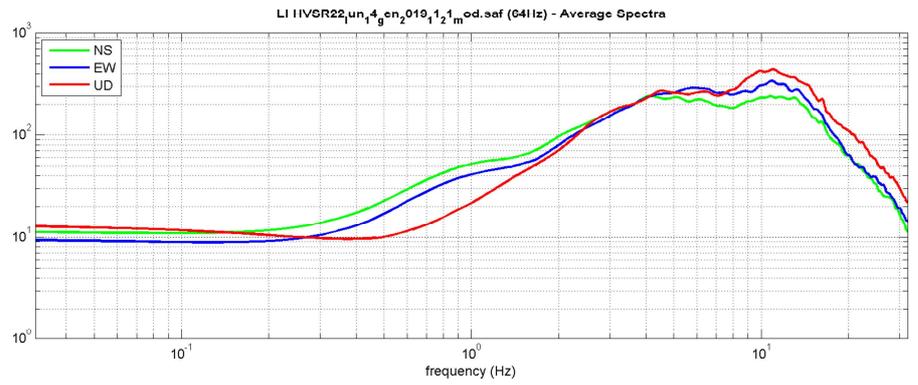
step#3b (optional) - directivity over time
 time step: s

save - option#1: save HVSR as it is
 save HV from to Hz

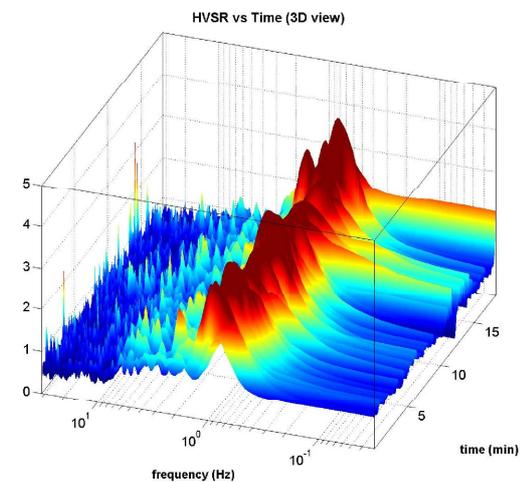
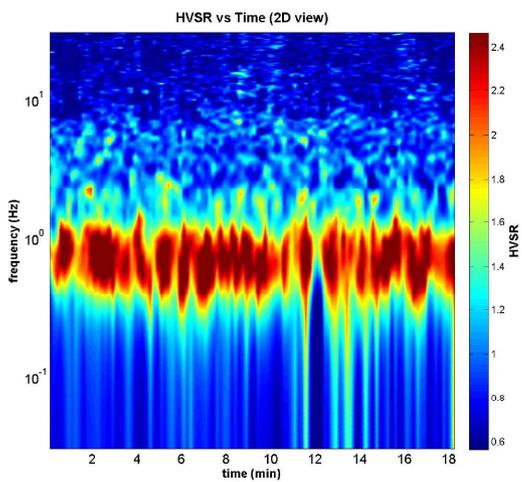
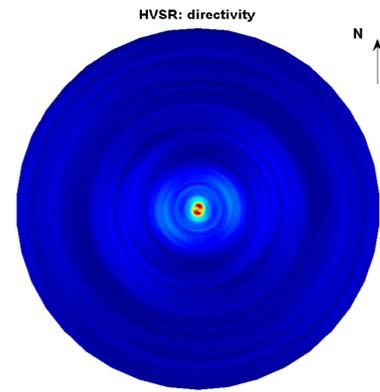
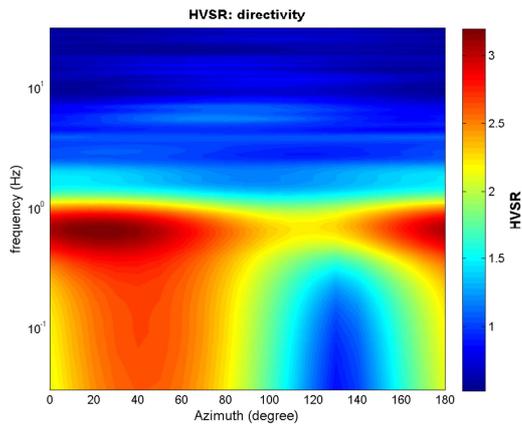
save - option#2: picking H/V curve

quick analysis (f=Vs/4H)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

www.winmasw.com



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/s, Modeling & Picking" panels and upload the saved HV curve



HVSR23_MS2

| DATE 14.01.2019 | HOUR 10.05 | PLACE Via del Giaggiolo - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|----------|------|------------|----------|------------|----------|------|--|-------------------------------------|--|--|--|--|--------|-------------------------------------|--|--|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|--|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4830552 | WGS84 - UTM33N LONGITUDE 124312 | ALTITUDE 35 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR23.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 11 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input checked="" type="checkbox"/> paved <input type="checkbox"/> other _____ <input checked="" type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input checked="" type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | <input checked="" type="checkbox"/> | | | | | trucks | <input checked="" type="checkbox"/> | | | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | <input checked="" type="checkbox"/> | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (trees, polls, buildings, bridges, underground structures...) Buildings |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

- Durata: rispettata
- Stazionarietà: rispettata
- Isotropia: rispettata
- Assenza di disturbi: rispettata
- Plausibilità fisica: rispettata
- Robustezza statistica: rispettata

MISURA TIPO A1

HVSR23_MS2

Peak frequency (Hz): 1.7 (±6.5)
 Peak HVSR value: 2.1 (±0.3)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 1.658 > 0.5 (OK)
- #2. [nc > 200]: 3780 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: (NO)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes, at frequency 5.6Hz (OK)
- #3. [A0 > 2]: 2.1 > 2 (OK)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaAf < epsilon(f0)]: 6.513 > 0.166 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.266 < 1.78 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.

window length (s)
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion (raw data)
 full output

step#3a (optional) - directivity analysis
 max freq: Hz

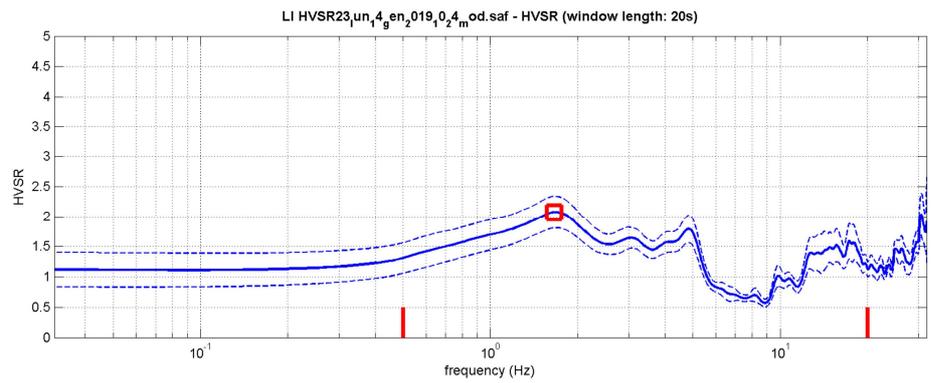
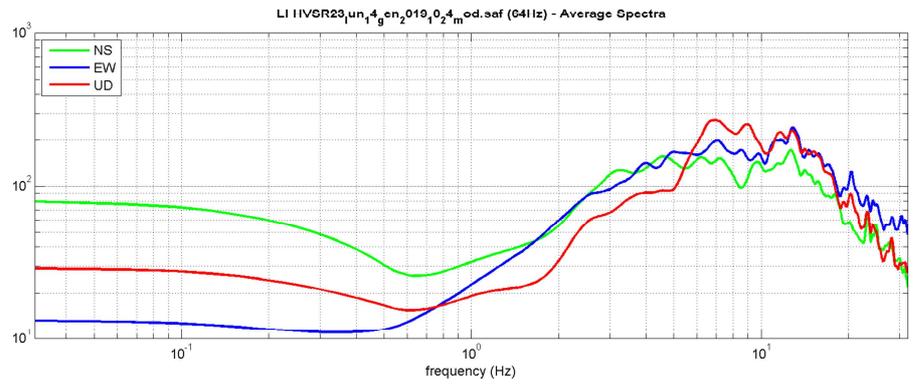
step#3b (optional) - directivity over time
 time step: s

save - option#1: save HVSR as it is
 save HV from to Hz

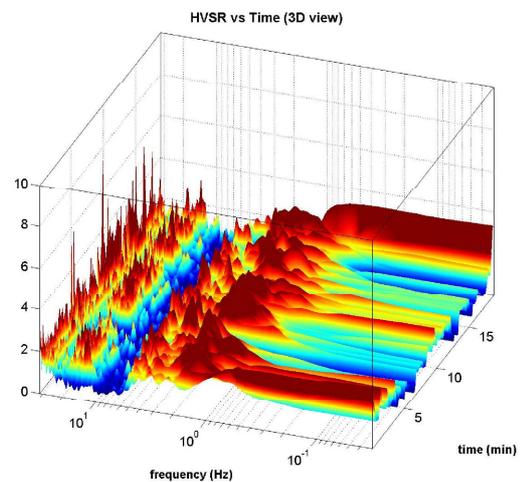
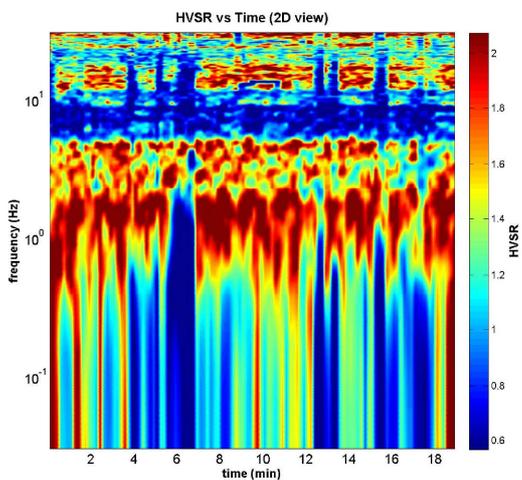
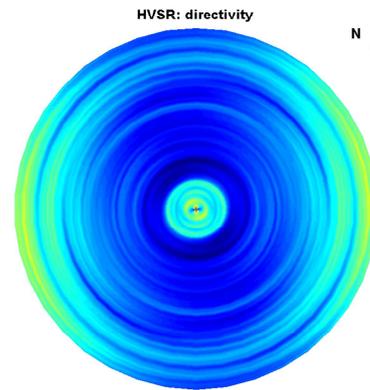
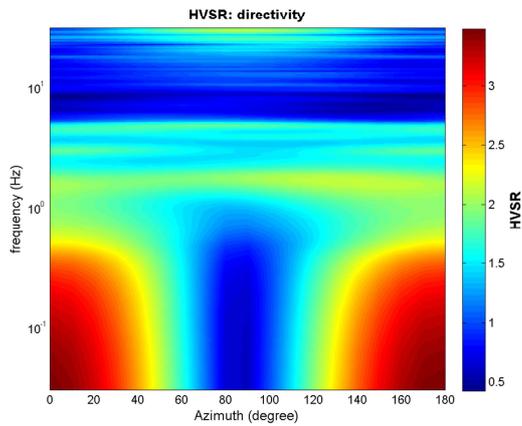
save - option#2: picking H/V curve

quick analysis (f=Vs/4H)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

www.winmasw.com



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/s, Modeling & Picking" panels and upload the saved HV curve



HVSR24_MS2

| DATE 14.01.2019 | HOUR 9.35 | PLACE Via del Giaggiolo - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|----------|----------|------------|------------|----------|------|--|-------------------------------------|--|--|--|--|--------|--|-------------------------------------|--|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|---|-----------|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4830464 | WGS84 - UTM33N LONGITUDE 124505 | ALTITUDE 42 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR24.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes</small> <small>seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 11 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input checked="" type="checkbox"/> earth (<input type="checkbox"/> hard <input checked="" type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input checked="" type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) | NEARBY STRUCTURES (trees, polls, buildings, bridges, underground structures...) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | <input checked="" type="checkbox"/> | | | | | trucks | | <input checked="" type="checkbox"/> | | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | <input checked="" type="checkbox"/> | | | | | | <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | Buildings |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

- Durata: rispettata
- Stazionarietà: rispettata
- Isotropia: rispettata
- Assenza di disturbi: rispettata
- Plausibilità fisica: rispettata
- Robustezza statistica: rispettata

MISURA TIPO A1

HVSR24_MS2

Peak frequency (Hz): 2.7 (±3.6)
Peak HVSR value: 3.0 (±0.4)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 2.690 > 0.5 (OK)
- #2. [nc > 200]: 6026 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: yes, at frequency 0.7Hz (OK)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes, at frequency 7.6Hz (OK)
- #3. [A0 > 2]: 3.0 > 2 (OK)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaf < epsilon(f0)]: 3.557 > 0.135 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.418 < 1.58 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.

window length (s)
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion (raw data)
 full output

step#3a (optional) - directivity analysis
 max freq: Hz

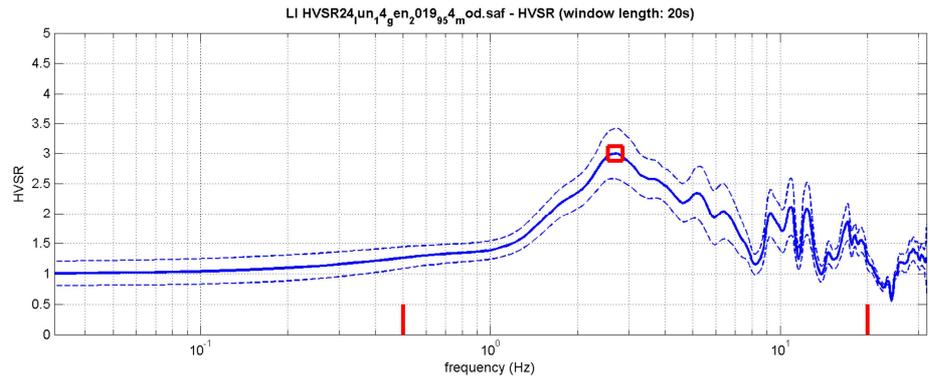
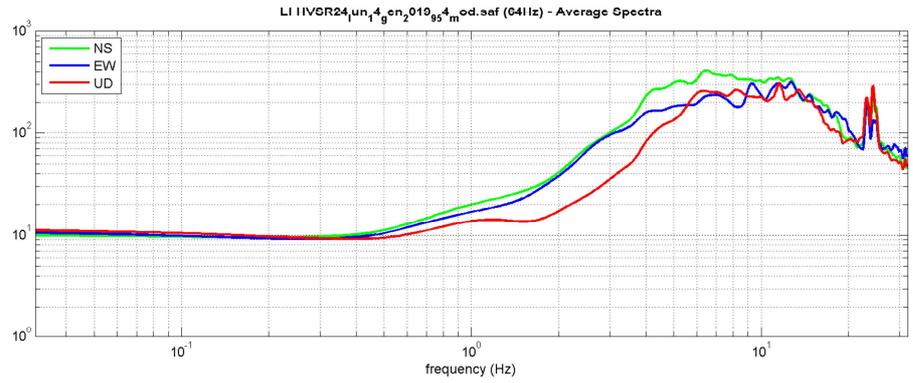
step#3b (optional) - directivity over time
 time step: s

save - option#1: save HVSR as it is
 save HV from to Hz

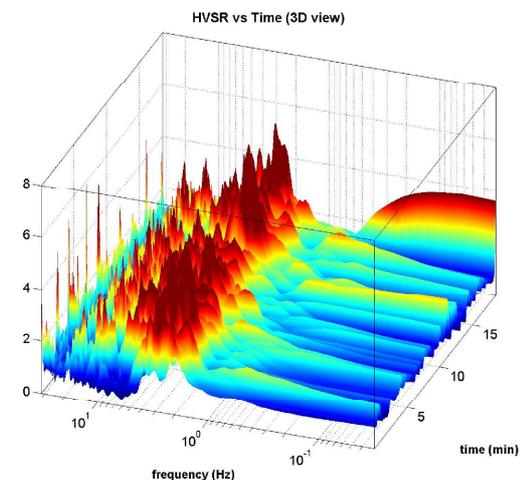
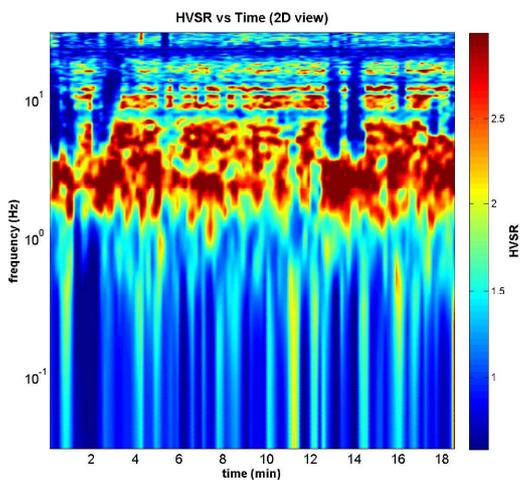
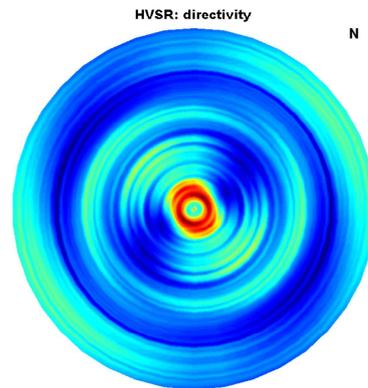
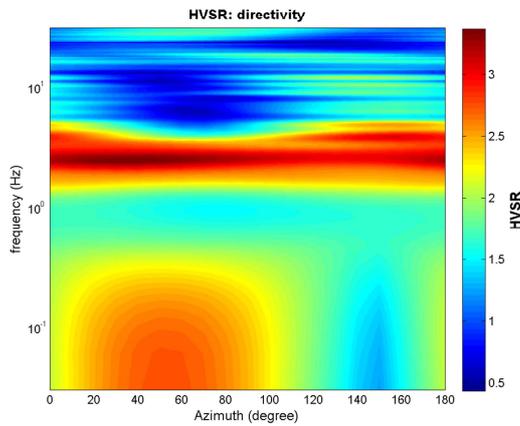
save - option#2: picking H/V curve

quick analysis (f=Vs/4H)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

www.winmasw.com



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/s, Modeling & Picking" panels and upload the saved HV curve



HVSR25_MS2

| DATE 03.01.2019 | HOUR 12.20 | PLACE Via dell'Ardenza - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|------|-----|----------|------|------------|----------|------|--|--|--|--|--|--|--------|--|--|--|--|--|--|-------------|--|--|--|--|--|--|-------|--|--|--|--|--|--|--|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4829135 | WGS84 - UTM33N LONGITUDE 122058 | ALTITUDE 11 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR25.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input type="checkbox"/> none <input checked="" type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Temperature (approx): 11 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input checked="" type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input type="checkbox"/> scattered <input checked="" type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | | | | | | trucks | | | | | | | pedestrians | | | | | | | other | | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Buildings |
| | | | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

MISURA TIPO A2

HVSR25_MS2

Peak frequency (Hz): 1.2 (±0.4)
Peak HVSR value: 1.4 (±0.2)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 1.157 > 0.5 (OK)
- #2. [nc > 200]: 2384 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: yes (considering standard deviations), at frequency 0.5Hz (OK)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: (NO)
- #3. [A0 > 2]: 1.4 < 2 (NO)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaf < epsilon(f0)]: 0.389 > 0.116 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.251 < 1.78 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.

window length (s) Min. freq.: 0.25Hz
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion and all HVSRs
 full output

step#3 - directivity analysis
 frequencies to highlight: Hz

3D motion
 save video

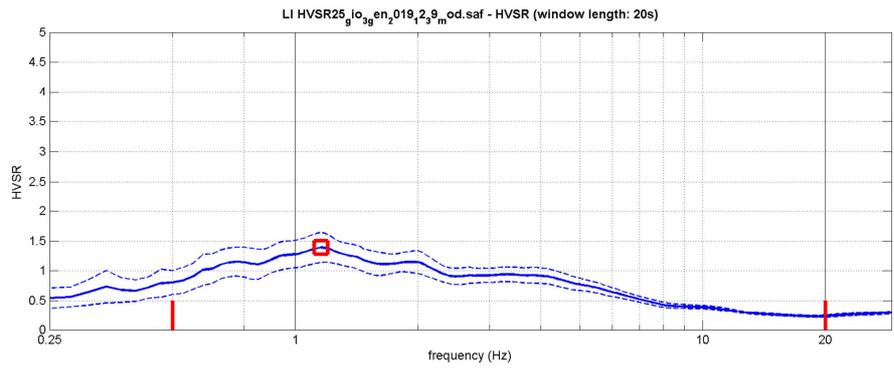
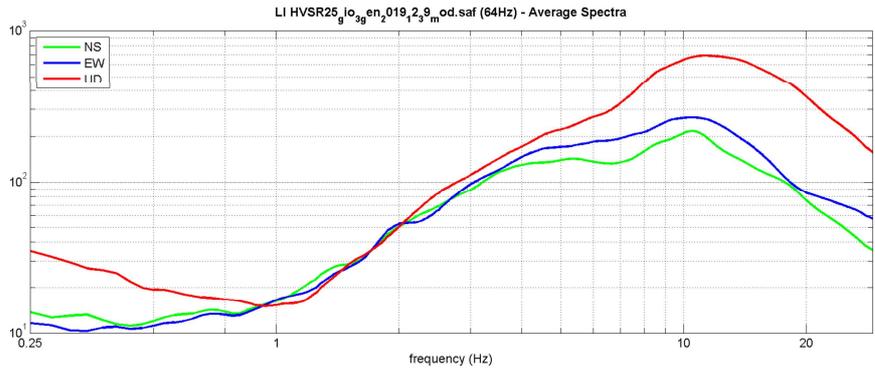
save - option#1: save HVSR as it is
 save HV from to Hz

save - option#2: picking H/V curve

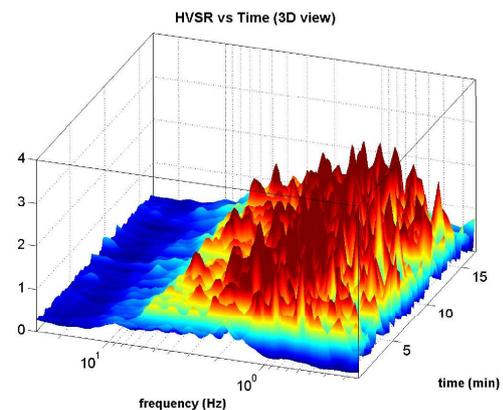
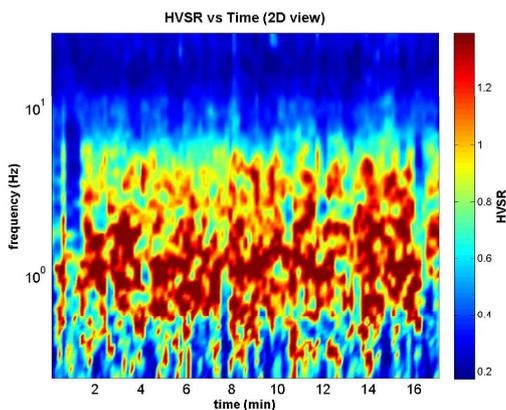
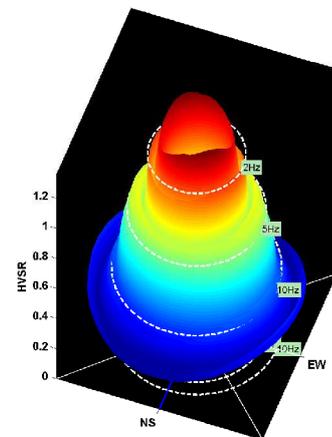
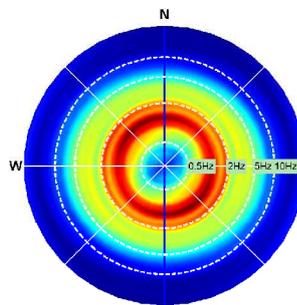
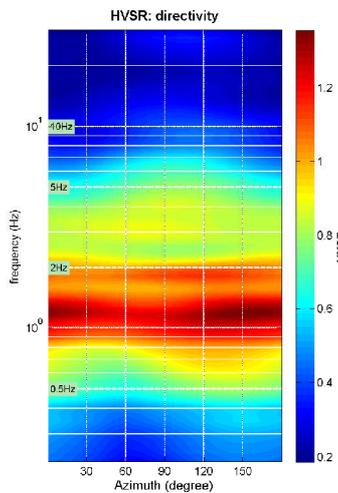
quick analysis (f-Vs/|H|)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

highlight a frequency
 Hz

directivity over time
 time step: s

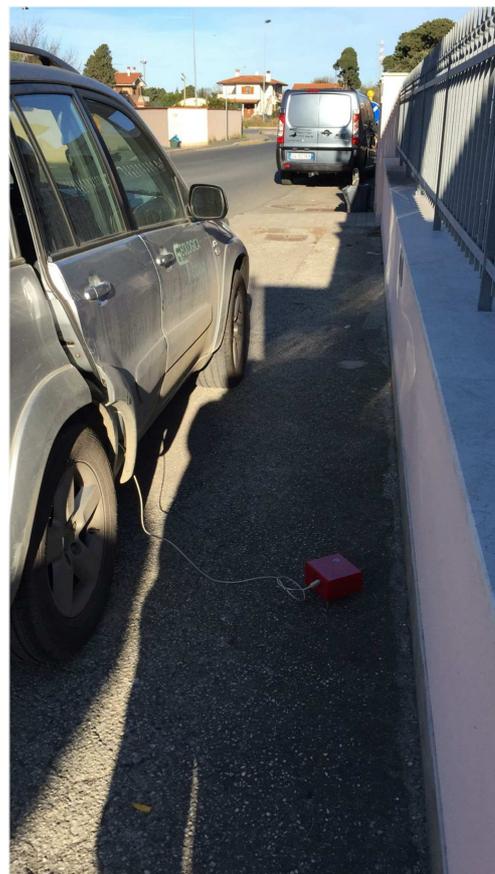


To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/a, Modeling & Picking" panels and upload the saved HV curve



HVSR26_MS2

| DATE 03.01.2019 | HOUR 10.20 | PLACE Via di Popogna - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|-------------------------------------|-----|----------|------|------------|----------|------|--|--|-------------------------------------|--|--|--|--------|--|-------------------------------------|--|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|---|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4829431 | WGS84 - UTM33N LONGITUDE 122961 | ALTITUDE 17 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR26.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 4 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input checked="" type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input type="checkbox"/> scattered <input checked="" type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | | <input checked="" type="checkbox"/> | | | | trucks | | <input checked="" type="checkbox"/> | | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | <input checked="" type="checkbox"/> | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Buildings, Trees |
| | | | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

MISURA TIPO A2

HVSR26_MS2

Peak frequency (Hz): 1.8 (±0.6)

Peak HVSR value: 1.8 (±0.2)

==== Criteria for a reliable H/V curve =====

- #1. [$f_0 > 10/Lw$]: 1.814 > 0.5 (OK)
- #2. [$n_c > 200$]: 4282 > 200 (OK)
- #3. [$f_0 > 0.5\text{Hz}$; $\sigma_A(f) < 2$ for $0.5f_0 < f < 2f_0$] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [$f_0/4, f_0$] | $AH/V(f^-) < A_0/2$]: yes (considering standard deviations), at frequency 0.5Hz (OK)
- #2. [exists f+ in the range [$f_0, 4f_0$] | $AH/V(f^+) < A_0/2$]: yes, at frequency 5.3Hz (OK)
- #3. [$A_0 > 2$]: 1.8 < 2 (NO)
- #4. [$f_{\text{peak}}[Ah/v(f) \pm \sigma_A(f)] = f_0 \pm 5\%$]: (NO)
- #5. [$\sigma_{\text{maf}} < \epsilon(f_0)$]: 0.551 > 0.181 (NO)
- #6. [$\sigma_A(f_0) < \theta(f_0)$]: 0.251 < 1.78 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.

window length (s) **Min. freq.: 0.25Hz**
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion and all HVSRs
 full output

step#3 - directivity analysis
 frequencies to highlight: Hz

3D motion
 save video

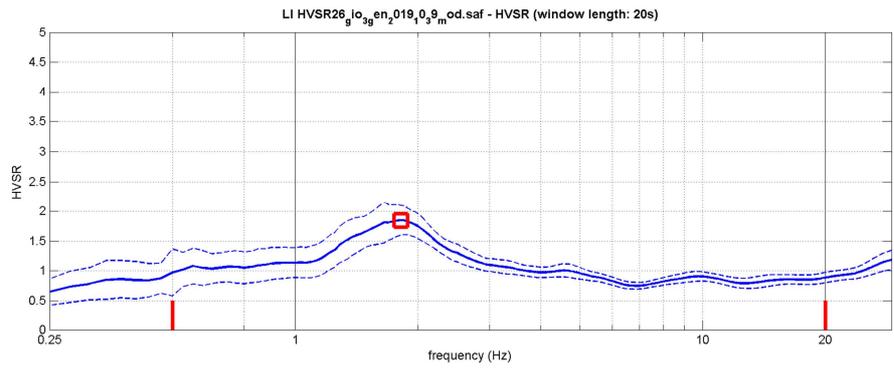
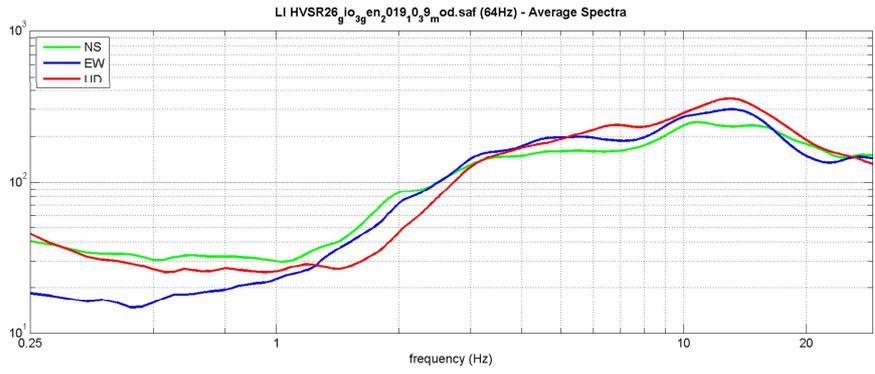
save - option#1: save HVSR as it is
 save HV from to Hz

save - option#2: picking H/V curve

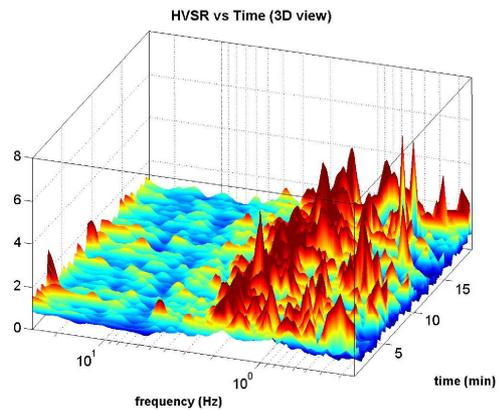
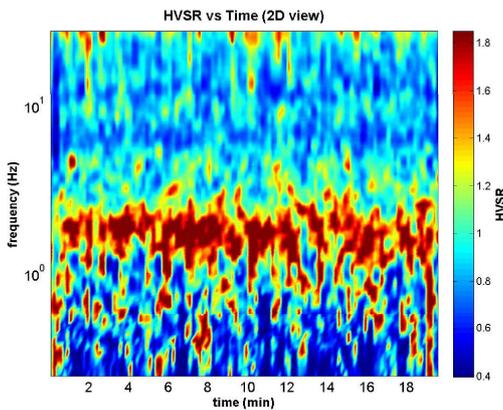
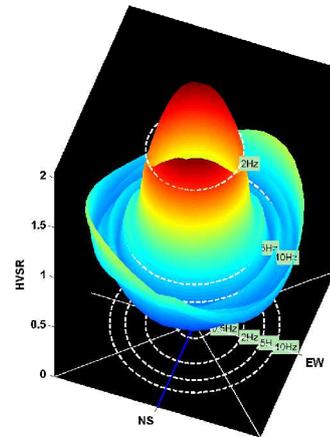
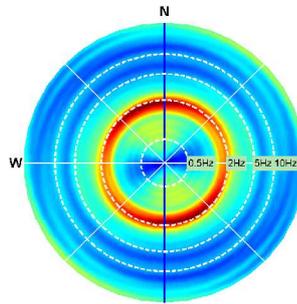
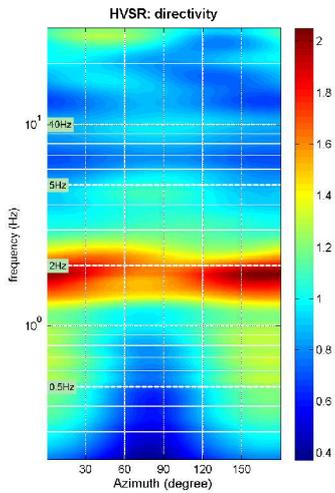
quick analysis (f-Vs/4H)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

highlight a frequency
 Hz

directivity over time
 time step: s



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/a, Modeling & Picking" panels and upload the saved HV curve



HVSR27_MS2

| DATE 03.01.2019 | HOUR 10.47 | PLACE Via dell'Onu - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|----------|------|------------|----------|------------|----------|------|--|-------------------------------------|--|--|--|--|--------|-------------------------------------|--|--|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|---|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4829998 | WGS84 - UTM33N LONGITUDE 123182 | ALTITUDE 22 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR27.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 5 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input type="checkbox"/> asphalt <input checked="" type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input type="checkbox"/> scattered <input checked="" type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | <input checked="" type="checkbox"/> | | | | | trucks | <input checked="" type="checkbox"/> | | | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | <input checked="" type="checkbox"/> | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Buildings, Trees |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

- Durata: rispettata
- Stazionarietà: rispettata
- Isotropia: rispettata
- Assenza di disturbi: rispettata
- Plausibilità fisica: rispettata
- Robustezza statistica: rispettata

MISURA TIPO A1

HVSR27_MS2

Peak frequency (Hz): 0.8 (±2.5)
 Peak HVSR value: 2.0 (±0.5)

==== Criteria for a reliable H/V curve =====

- #1. [$f_0 > 10/Lw$]: 0.751 > 0.5 (OK)
- #2. [$n_c > 200$]: 1772 > 200 (OK)
- #3. [$f_0 > 0.5\text{Hz}$; $\sigma_A(f) < 2$ for $0.5f_0 < f < 2f_0$] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [$f_0/4, f_0$] | $AH/V(f-) < A_0/2$]: (NO)
- #2. [exists f+ in the range [$f_0, 4f_0$] | $AH/V(f+) < A_0/2$]: yes, at frequency 2.6Hz (OK)
- #3. [$A_0 > 2$]: 2.0 > 2 (OK)
- #4. [$f_{\text{peak}}[Ah/v(f) \pm \sigma_A(f)] = f_0 \pm 5\%$]: (OK)
- #5. [$\sigma_A < \epsilon(f_0)$]: 2.493 > 0.113 (NO)
- #6. [$\sigma_A(f_0) < \theta(f_0)$]: 0.482 < 2 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.

window length (s) Min. freq.
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion and all HVSRs
 full output

step#3 - directivity analysis
 frequencies to highlight: Hz

3D motion
 save video

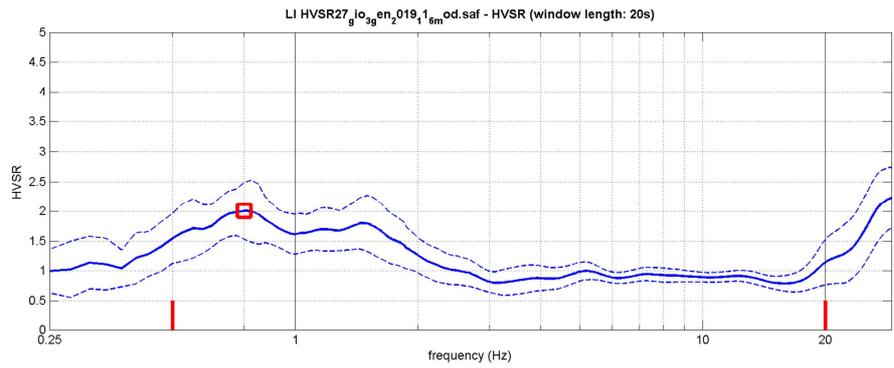
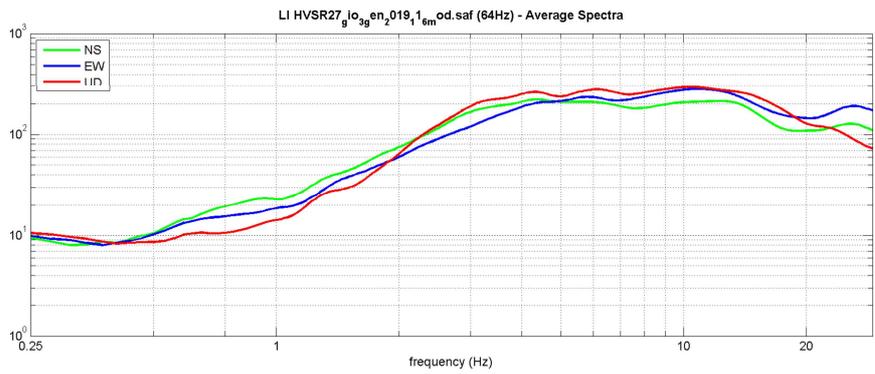
save - option#1: save HVSR as it is
 save HV from to Hz

save - option#2: picking H/V curve

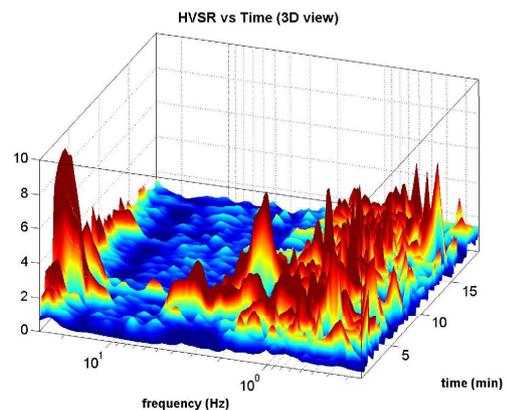
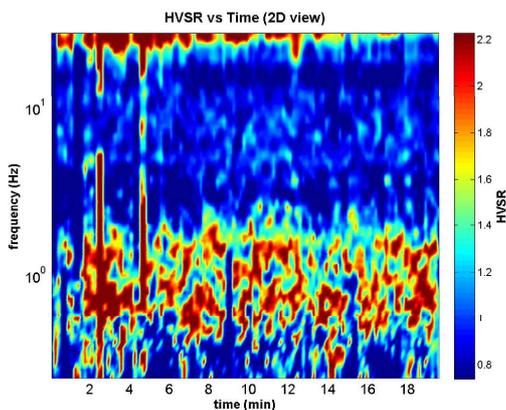
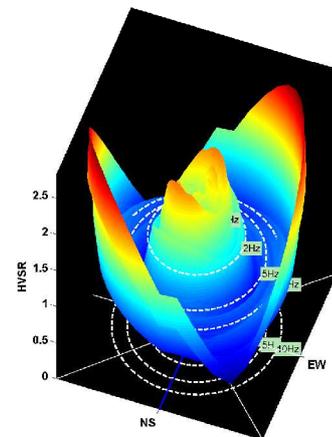
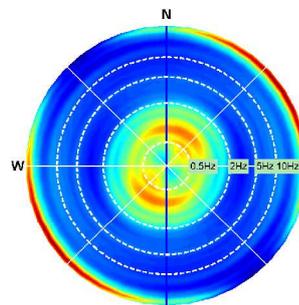
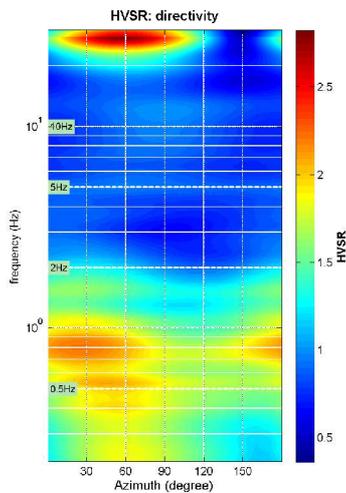
quick analysis (f-Vs/|H|)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

highlight a frequency
 Hz

directivity over time
 time step: s



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/a, Modeling & Picking" panels and upload the saved HV curve



HVSR28_MS2

| | | | | | |
|--|--|---|----------|------|--|
| DATE 14.01.2019 | HOUR 12.25 | PLACE Via delle Macchie - Livorno | | | |
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | |
| WGS84 - UTM33N LATITUDE 4832124 | WGS84 - UTM33N LONGITUDE 124262 | ALTITUDE 21 m slm | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | |
| STATION # | SENSOR # | DISK # | | | |
| FILE NAME HVSR28.saf | | POINT # | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes</small> <small>seconds</small> | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | |
| Temperature (approx): 12 Remarks _____ | | | | | |
| GROUND TYPE | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input checked="" type="checkbox"/> grass = (<input checked="" type="checkbox"/> short <input type="checkbox"/> tall) | | | | |
| <input type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input checked="" type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input checked="" type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | |
| TRANSIENTS | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) | | | | |
| | <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | |
| | none | few | moderate | many | very dense |
| cars | | <input checked="" type="checkbox"/> | | | |
| trucks | | <input checked="" type="checkbox"/> | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | |
| other | <input checked="" type="checkbox"/> | | | | |
| NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) | | | | | |
| Buildings | | | | | |
| OBSERVATIONS | | | | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> |



Qualità della misura:

- Durata: rispettata
- Stazionarietà: rispettata
- Isotropia: rispettata
- Assenza di disturbi: rispettata
- Plausibilità fisica: rispettata
- Robustezza statistica: rispettata

MISURA TIPO A1

HVSR28_MS2

Peak frequency (Hz): 20.0 (±5.5)
Peak HVSR value: 3.0 (±0.6)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 19.988 > 0.5 (OK)
- #2. [nc > 200]: 45973 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: yes, at frequency 5.6Hz (OK)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: (NO)
- #3. [A0 > 2]: 3.0 > 2 (OK)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaf < epsilon(f0)]: 5.487 > 0.999 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.566 < 1.58 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.

window length (s)
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion (raw data)
 full output

step#3a (optional) - directivity analysis
 max freq: Hz

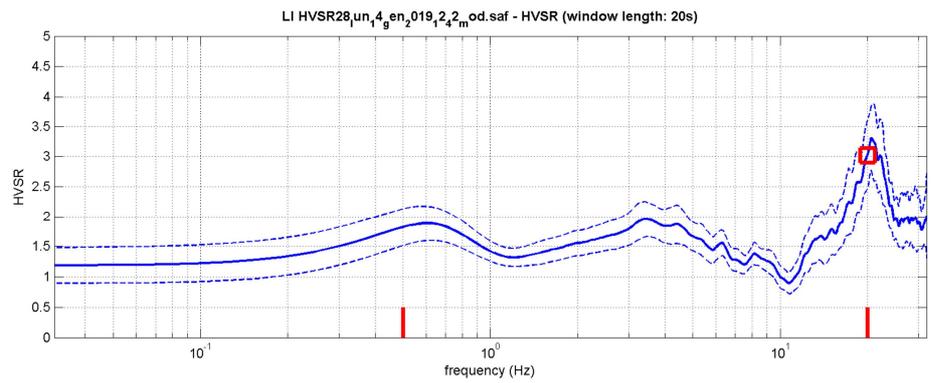
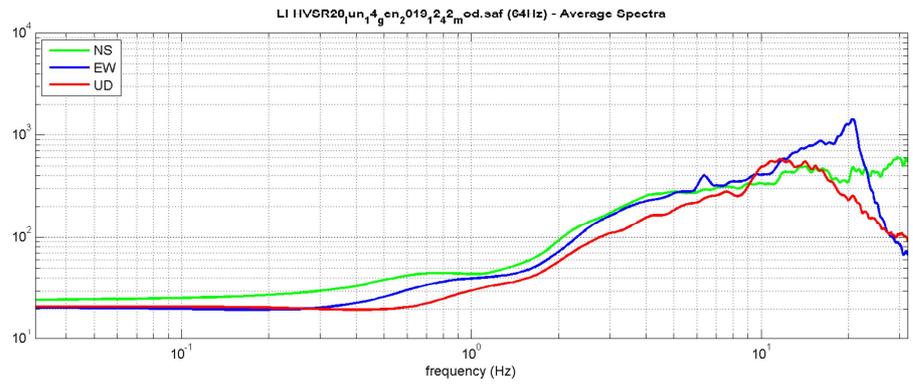
step#3b (optional) - directivity over time
 time step: s

save - option#1: save HVSR as it is
 save HV from to Hz

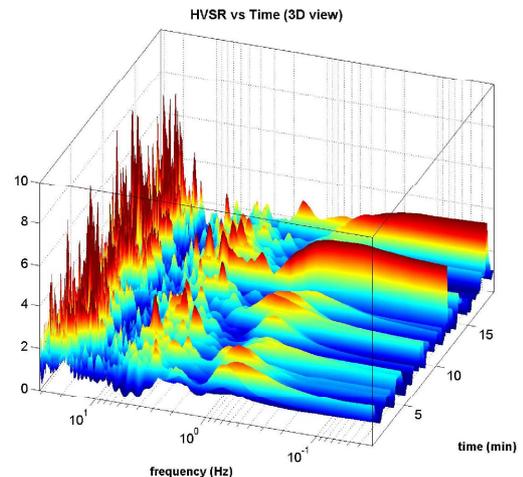
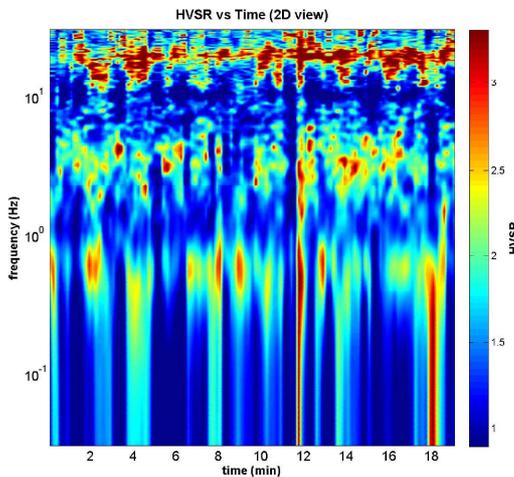
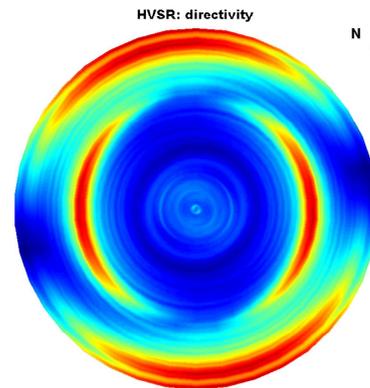
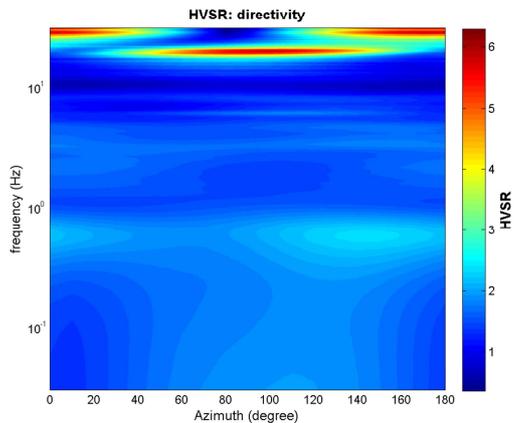
save - option#2: picking H/V curve

quick analysis (f=Vs/4H)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

www.winmasw.com



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/s, Modeling & Picking" panels and upload the saved HV curve



HVSR29_MS2

| DATE 14.01.2019 | HOUR 12.25 | PLACE Via della Fonte Puzzolente Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|------|-----|----------|------|------------|----------|------|--|-------------------------------------|--|--|--|--|--------|-------------------------------------|--|--|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|--|-------------------------------------|--|--|--|--|--|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4832838 | WGS84 - UTM33N LONGITUDE 125793 | ALTITUDE 21 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR29.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min minutes seconds | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 13 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input checked="" type="checkbox"/> grass = (<input type="checkbox"/> short <input checked="" type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input checked="" type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input checked="" type="checkbox"/> none <input type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | <input checked="" type="checkbox"/> | | | | | trucks | <input checked="" type="checkbox"/> | | | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | | <input checked="" type="checkbox"/> | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Buildings |
| | | | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz (if computed in the field) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

- Durata: rispettata
- Stazionarietà: rispettata
- Isotropia: rispettata
- Assenza di disturbi: non rispettata
- Plausibilità fisica: rispettata
- Robustezza statistica: rispettata

MISURA TIPO B1

HVSR29_MS2

Peak frequency (Hz): 4.1 (±6.0)
 Peak HVSR value: 3.7 (±0.5)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 4.066 > 0.5 (OK)
- #2. [nc > 200]: 9028 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: yes, at frequency 1.0Hz (OK)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes, at frequency 6.6Hz (OK)
- #3. [A0 > 2]: 3.7 > 2 (OK)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaf < epsilon(f0)]: 5.999 > 0.203 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.515 < 1.58 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.

window length (s)
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion (raw data)
 full output

step#3a (optional) - directivity analysis
 max freq: Hz

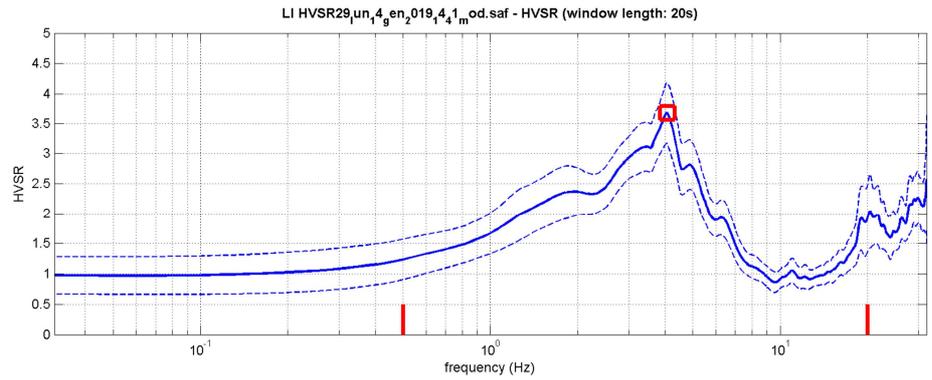
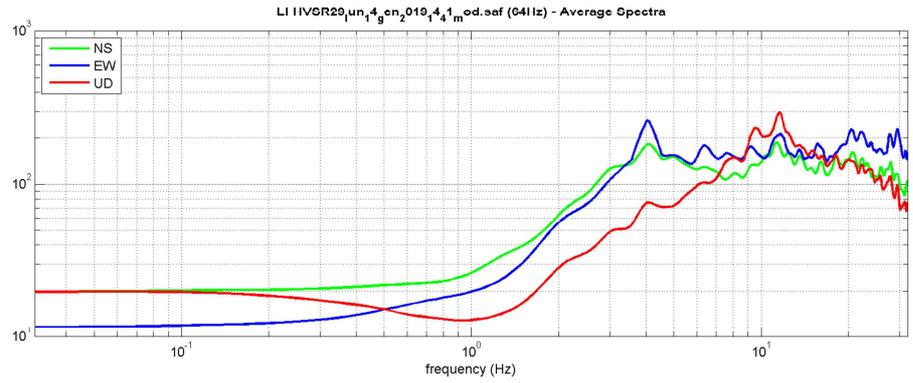
step#3b (optional) - directivity over time
 time step: s

save - option#1: save HVSR as it is
 save HV from to Hz

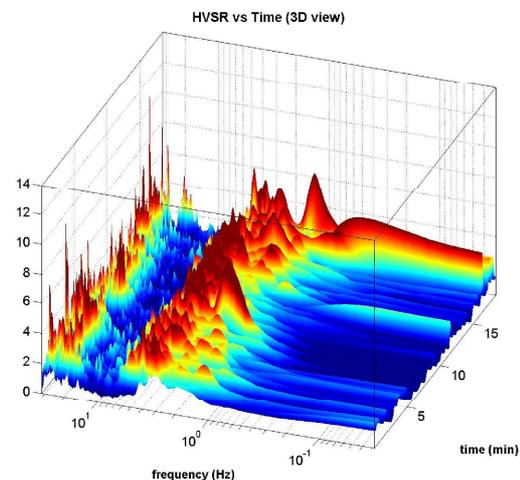
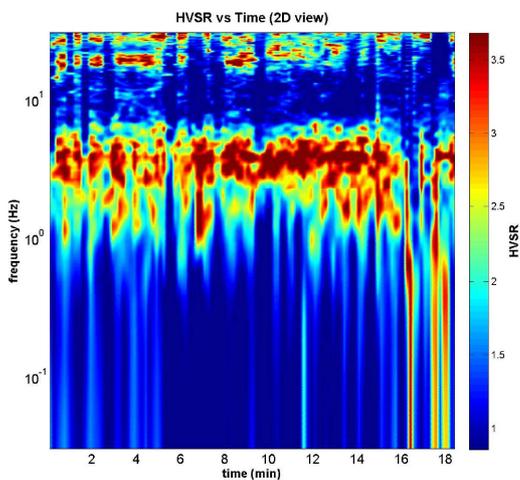
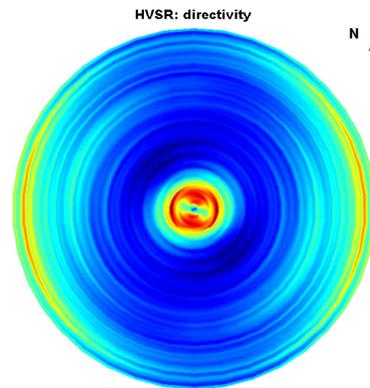
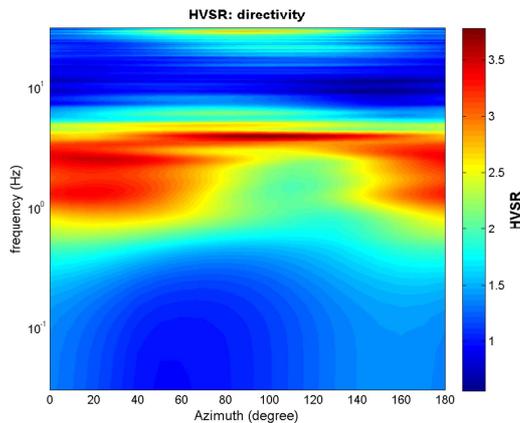
save - option#2: picking H/V curve

quick analysis (f=Vs/4H)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

www.winmasw.com



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/s, Modeling & Picking" panels and upload the saved HV curve



HVSR30_MS2

| DATE 10.01.2019 | HOOR 13.14 | PLACE Via Gramsci - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|-------------------------------------|-------------------------------------|------------|----------|------------|----------|------|--|--|--|-------------------------------------|--|--|--------|--|-------------------------------------|--|--|--|--|-------------|--|--|-------------------------------------|--|--|--|-------|-------------------------------------|--|--|--|--|--|--|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4832458 | WGS84 - UTM33N LONGITUDE 122158 | ALTITUDE 10 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR30.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 12 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input checked="" type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input type="checkbox"/> scattered <input checked="" type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td></td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td></td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | | | <input checked="" type="checkbox"/> | | | trucks | | <input checked="" type="checkbox"/> | | | | | pedestrians | | | <input checked="" type="checkbox"/> | | | | other | <input checked="" type="checkbox"/> | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Buildings, Trees |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

MISURA TIPO A2

HVSR30_MS2

Peak frequency (Hz): 2.0 (±1.3)

Peak HVSR value: 1.0 (±0.1)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 2.002 > 0.5 (OK)
- #2. [nc > 200]: 4524 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: yes, at frequency 0.5Hz (OK)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes, at frequency 7.4Hz (OK)
- #3. [A0 > 2]: 1.0 < 2 (NO)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaAf < epsilon(f0)]: 1.303 > 0.100 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.129 < 1.58 (OK)

show data **reset** **show location**

step#1 (optional) - decimate
 64Hz

step#2 - H/V computation
 both Rad. & Tr.
 20 window length (s)
 8 tapering (%)
 9 outlier tolerance threshold
 15% spectral smoothing (triangular window)
 show particle motion (raw data)
 full output

step#3a (optional) - directivity analysis
 max freq: 32 Hz

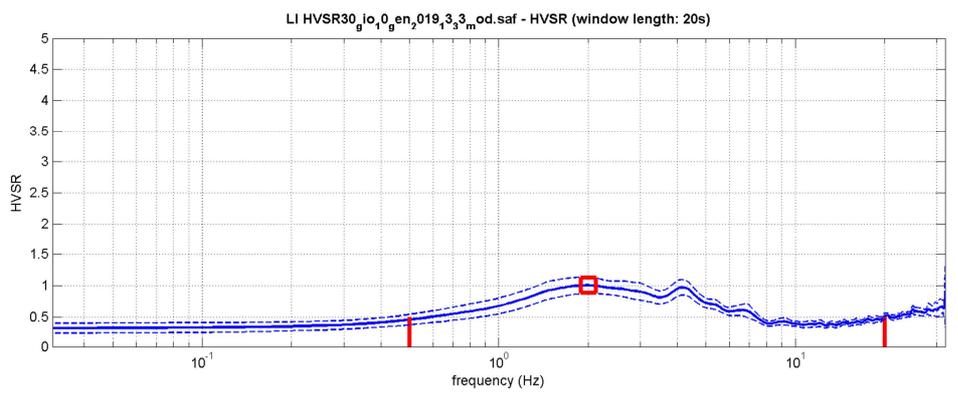
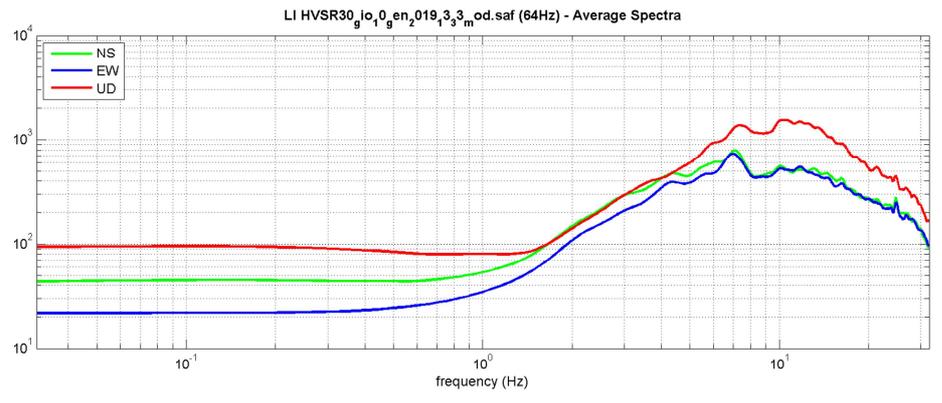
step#3b (optional) - directivity over time
 time step: 60 s

save - option#1: save HVSr as it is
 save HV from 0.05 to 64 Hz

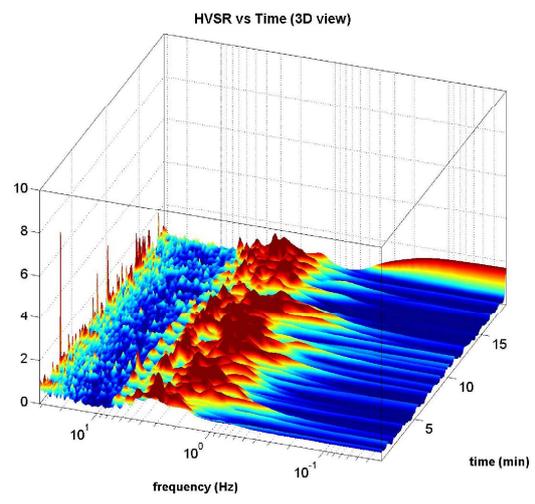
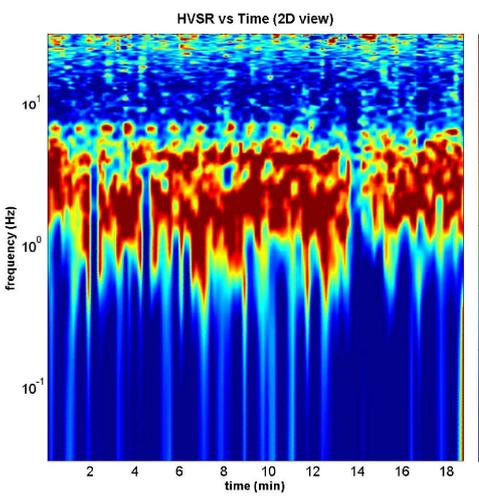
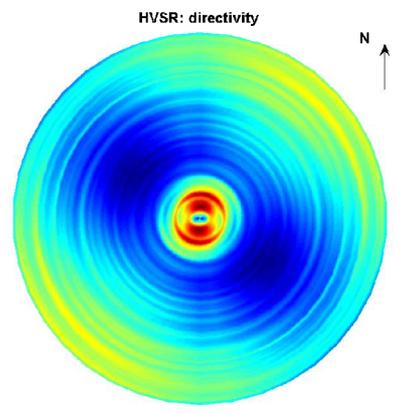
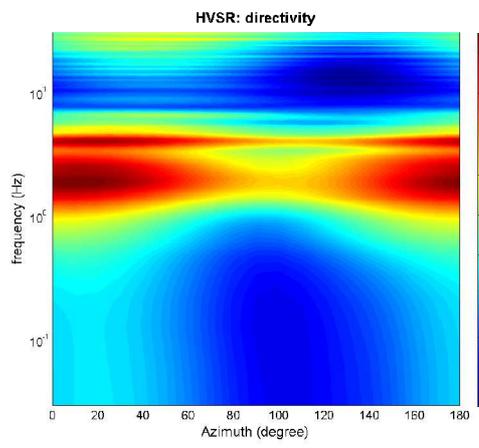
save - option#2: picking H/V curve

quick analysis (f-Vs/4#)
 average Vs (m/s) (from surface to bedrock): 180
 depth of the bedrock (m): 20
 Vs of the bedrock: 1000

www.winmasw.com



To model the HVSr (also jointly with MASW or ReMESAC data), save the HV curve, go to the "Velocity Spectrum/s, Modeling & Picking" panels and upload the saved HV curve



HVSR31_MS2

| | | | | | |
|--|--|---|-------------------------------------|--|--|
| DATE | 03.01.2019 | HOUR | 9.44 | PLACE | Via di Popogna - Livorno |
| OPERATOR | Geologica Toscana S.n.c. | | GPS TYPE and # | | |
| WGS84 - UTM33N LATITUDE | 4828959 | WGS84 - UTM33N LONGITUDE | 123345 | ALTITUDE | 14 m slm |
| STATION TYPE | GPA Engineering | | SENSOR TYPE 3D - 4,5 Hz | | |
| STATION # | SENSOR # | | DISK # | | |
| FILE NAME | HVSR31.saf | | POINT # | | |
| GAIN | SAMPL. FREQ | | 300 Hz | REC. DURATION | 20 min <small>minutes</small> seconds |
| WEATHER | WIND | <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | |
| CONDITIONS | RAIN | <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | |
| Temperature (approx): 4 _____ Remarks _____ | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | |
| TYPE | <input checked="" type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ | | | | |
| <input type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input checked="" type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | |
| TRANSIENTS | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) | | | | |
| | <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | |
| | none | few | moderate | many | very dense |
| cars | | | <input checked="" type="checkbox"/> | | |
| trucks | | <input checked="" type="checkbox"/> | | | |
| pedestrians | | <input checked="" type="checkbox"/> | | | |
| other | <input checked="" type="checkbox"/> | | | | |
| NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) | | | | | |
| Buildings | | | | | |
| OBSERVATIONS | | | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | |



Qualità della misura:

MISURA TIPO A2

HVSR31_MS2

Peak frequency (Hz): 3.8 (±1.3)

Peak HVSR value: 1.6 (±0.3)

=== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 3.848 > 0.5 (OK)
- #2. [nc > 200]: 8926 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

=== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: yes, at frequency 1.0Hz (OK)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes, at frequency 7.7Hz (OK)
- #3. [A0 > 2]: 1.6 < 2 (NO)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaf < epsilon(f0)]: 1.253 > 0.192 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.297 < 1.58 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.

window length (s) Min. freq.: 0.25Hz
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion and all HVSRs
 full output

step#3 - directivity analysis
 frequencies to highlight: Hz

3D motion
 save video

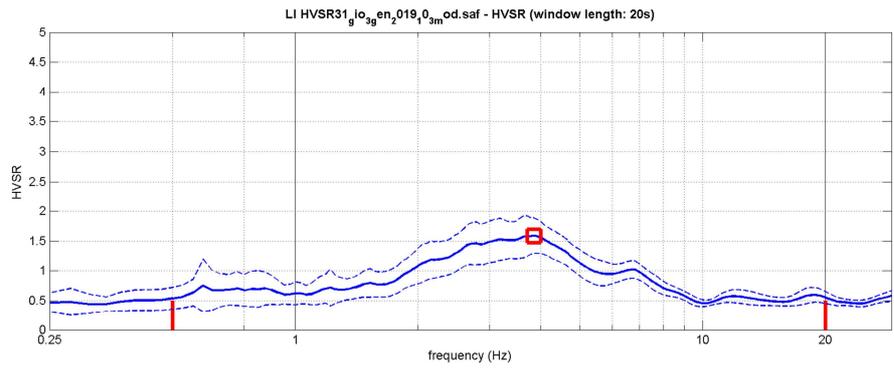
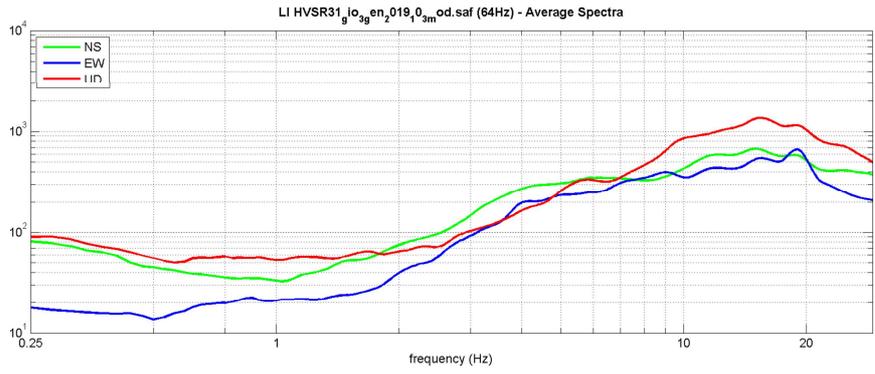
save - option#1: save HVSR as it is
 save HV from to Hz

save - option#2: picking H/V curve

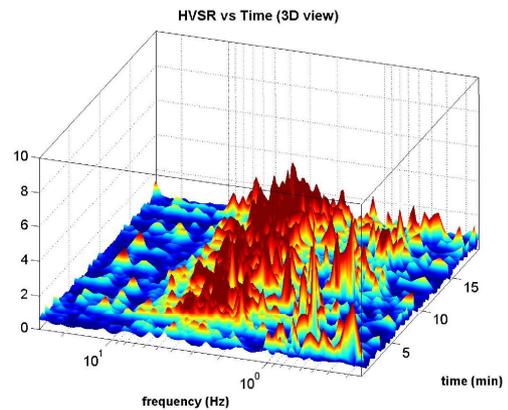
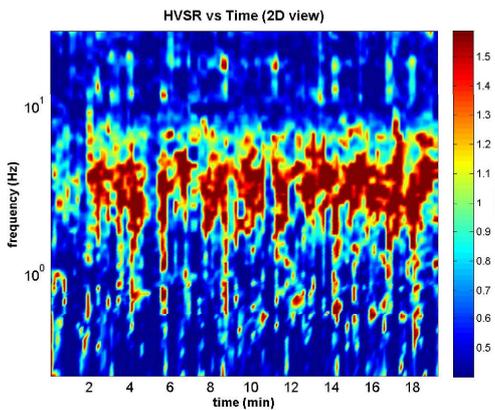
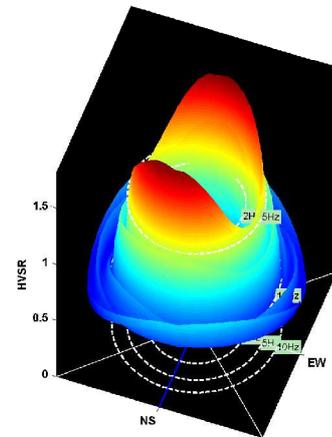
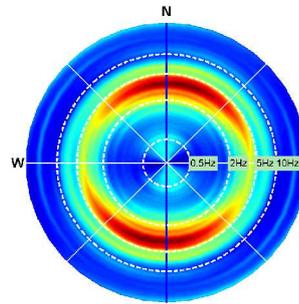
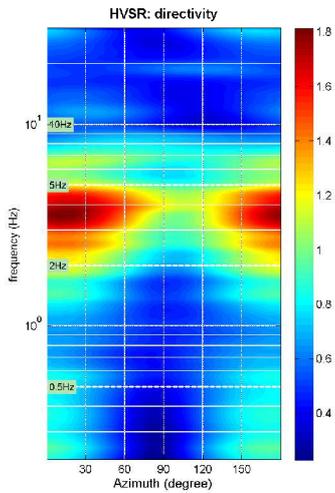
quick analysis (f-Vs/|H|)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

highlight a frequency
 Hz

directivity over time
 time step: s



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/a, Modeling & Picking" panels and upload the saved HV curve



HVSR32_MS2

| DATE 03.01.2019 | HOUR 14.08 | PLACE Via del Limoncino - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|----------|------|------------|----------|------------|----------|------|--|-------------------------------------|--|--|--|--|--------|-------------------------------------|--|--|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|--|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4830364 | WGS84 - UTM33N LONGITUDE 126283 | ALTITUDE 127 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR32.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 9 _____ Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input checked="" type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input checked="" type="checkbox"/> none <input type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | <input checked="" type="checkbox"/> | | | | | trucks | <input checked="" type="checkbox"/> | | | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | <input checked="" type="checkbox"/> | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Trees |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

MISURA TIPO A2

HVSR32_MS2

Peak frequency (Hz): 5.3 (±3.7)

Peak HVSR value: 1.9 (±0.5)

==== Criteria for a reliable H/V curve =====

- #1. $[f_0 > 10/Lw]$: $5.318 > 0.5$ (OK)
- #2. $[nc > 200]$: $12550 > 200$ (OK)
- #3. $[f_0 > 0.5Hz; \sigma_A(f) < 2 \text{ for } 0.5f_0 < f < 2f_0]$ (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range $[f_0/4, f_0]$ | $AH/V(f-) < A_0/2$]: yes (considering standard deviations), at frequency 1.3Hz (OK)
- #2. [exists f+ in the range $[f_0, 4f_0]$ | $AH/V(f+) < A_0/2$]: yes, at frequency 10.4Hz (OK)
- #3. $[A_0 > 2]$: $1.9 < 2$ (NO)
- #4. $[f_{peak}[Ah/v(f) \pm \sigma_A(f)] = f_0 \pm 5\%]$: (OK)
- #5. $[\sigma_{maf} < \epsilon(f_0)]$: $3.694 > 0.266$ (NO)
- #6. $[\sigma_A(f_0) < \theta(f_0)]$: $0.518 < 1.58$ (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.

window length (s) **Min. freq.: 0.25Hz**
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion and all HVSRs
 full output

step#3 - directivity analysis
 frequencies to highlight: Hz

3D motion
 save video

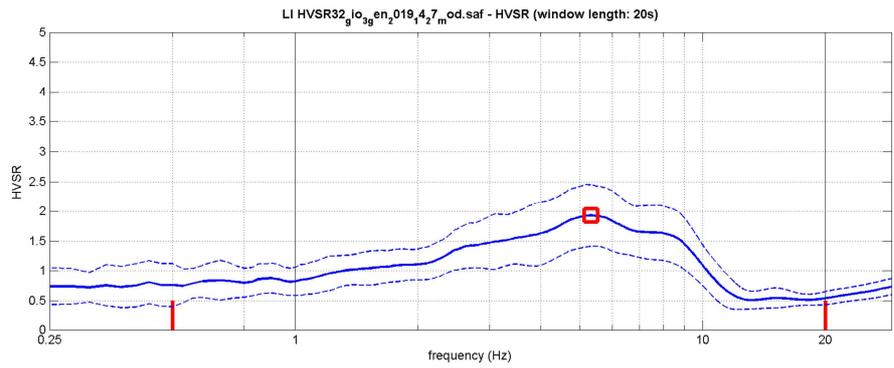
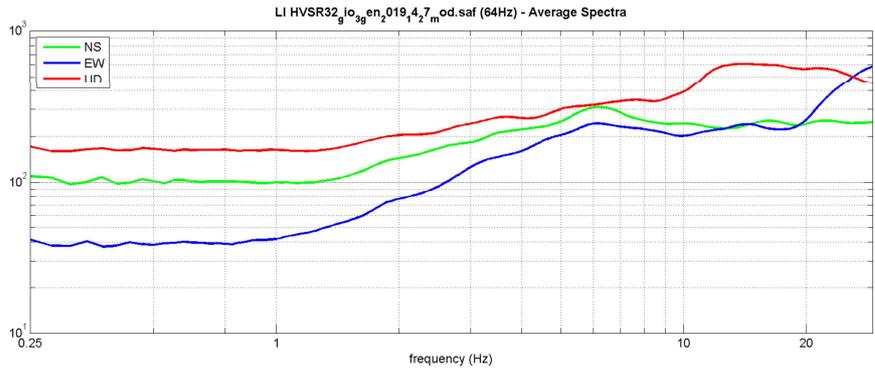
save - option#1: save HVSR as it is
 save HV from to Hz

save - option#2: picking H/V curve

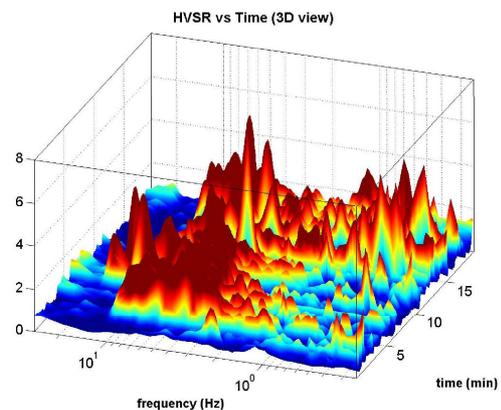
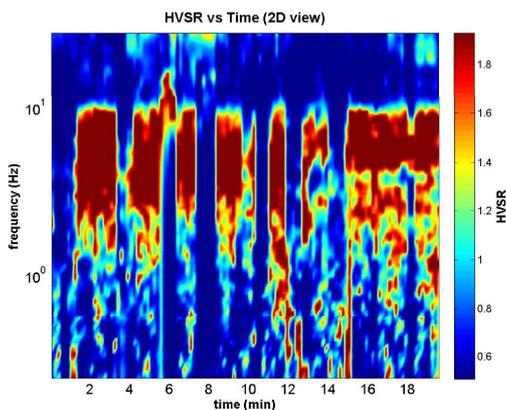
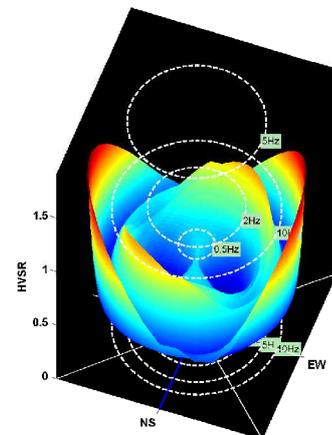
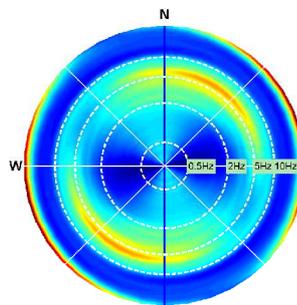
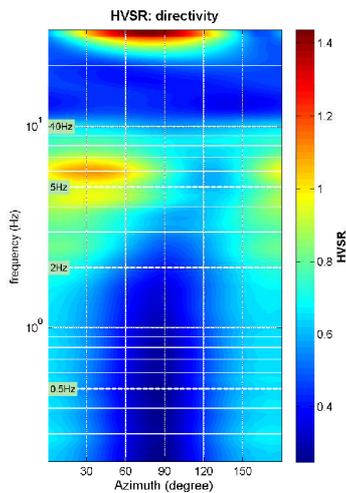
quick analysis (f-Vs/|H|)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

highlight a frequency
 Hz

directivity over time
 time step: s



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/a, Modeling & Picking" panels and upload the saved HV curve



HVSR33_MS2

| DATE 02.01.2019 | HOUR 13.16 | PLACE Via di Capraia - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|----------|----------|------------|------------|----------|------|--|-------------------------------------|--|--|--|--|--------|-------------------------------------|--|--|--|--|--|-------------|--|-------------------------------------|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|---|--|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4826078 | WGS84 - UTM33N LONGITUDE 122165 | ALTITUDE 16 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR33.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 14 _____ Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND TYPE | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input type="checkbox"/> scattered <input checked="" type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | <input checked="" type="checkbox"/> | | | | | trucks | <input checked="" type="checkbox"/> | | | | | | pedestrians | | <input checked="" type="checkbox"/> | | | | | other | <input checked="" type="checkbox"/> | | | | | | <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Buildings | |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

- Durata: rispettata
- Stazionarietà: rispettata
- Isotropia: rispettata
- Assenza di disturbi: rispettata
- Plausibilità fisica: rispettata
- Robustezza statistica: rispettata

MISURA TIPO A1

HVSR33_MS2

Peak frequency (Hz): 5.1 (±6.7)
Peak HVSR value: 3.1 (±2.3)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 5.130 > 0.5 (OK)
- #2. [nc > 200]: 12004 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: yes, at frequency 1.3Hz (OK)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes (considering standard deviations), at frequency Hz (OK)
- #3. [A0 > 2]: 3.1 > 2 (OK)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (NO)
- #5. [sigmaf < epsilon(f0)]: 6.684 > 0.257 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 2.331 < 1.58 (NO)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.

window length (s) Min. freq.: 0.25Hz
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion and all HVSRs
 full output

step#3 - directivity analysis
 frequencies to highlight: Hz

3D motion
 save video

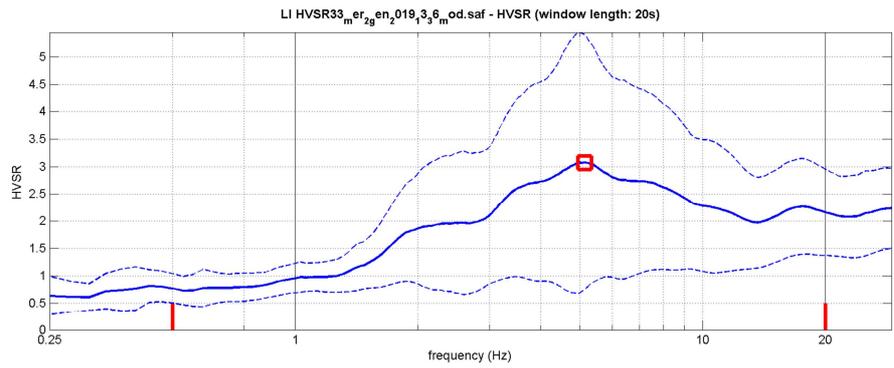
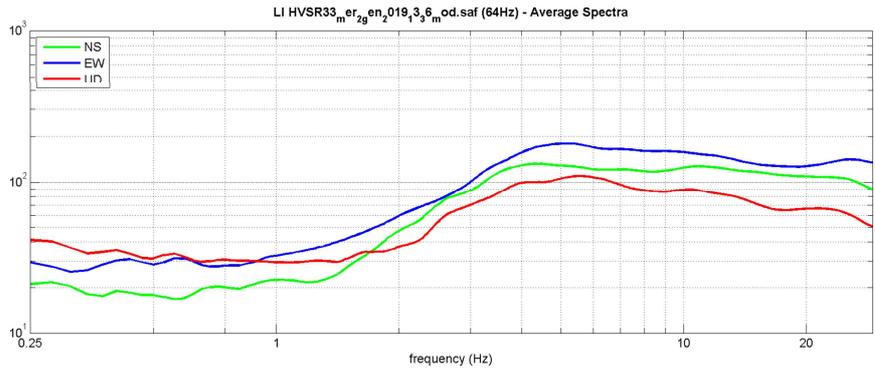
save - option#1: save HVSR as it is
 save HV from to Hz

save - option#2: picking HV curve

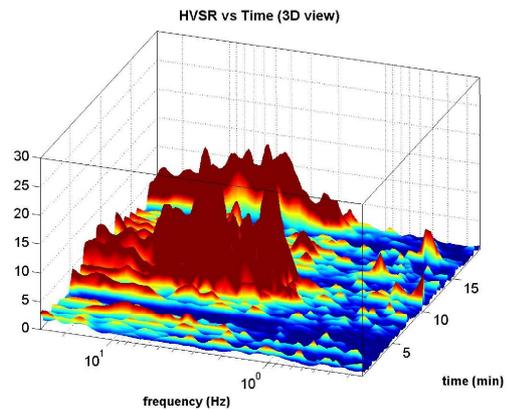
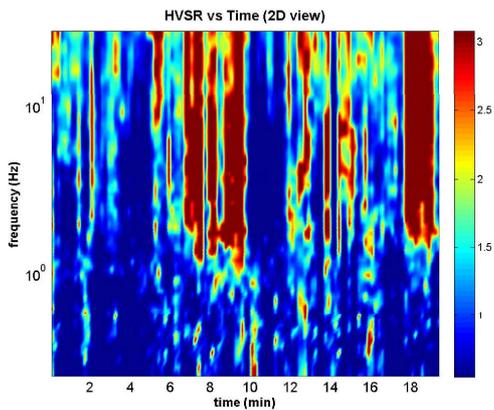
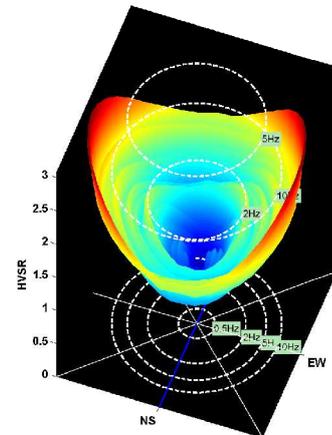
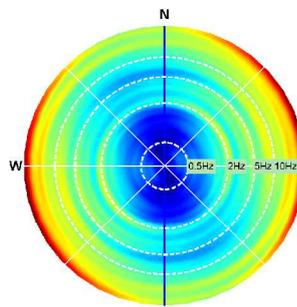
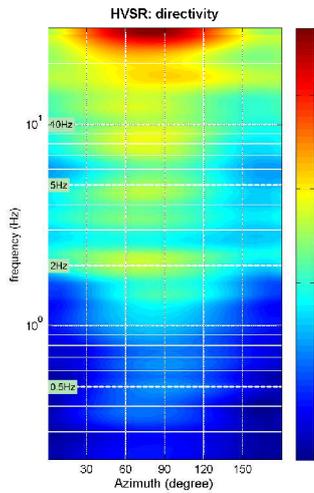
quick analysis (f-Vs/|H|)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

highlight a frequency
 Hz

directivity over time
 time step: s

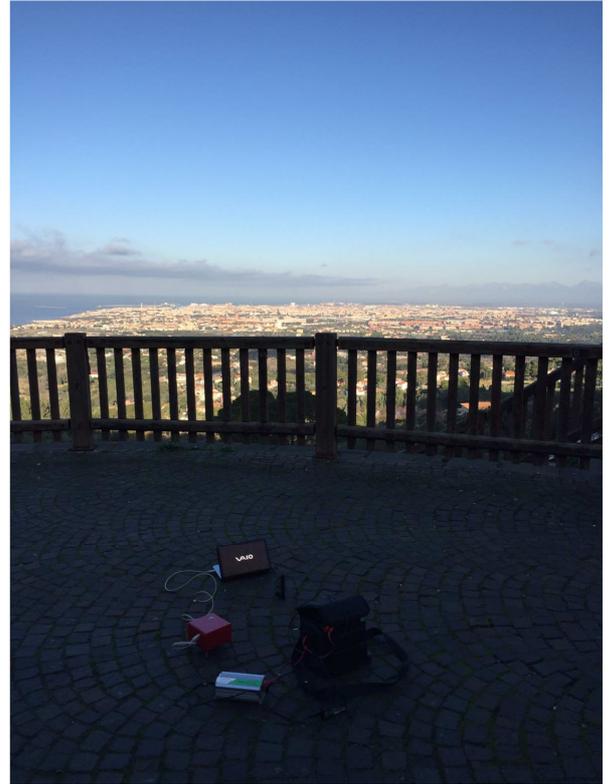


To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/a, Modeling & Picking" panels and upload the saved HV curve



HVSR34_MS2

| DATE 02.01.2019 | HOOR 9.48 | PLACE Via Giovanni XXIII Loc. Montenero - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|----------|------|------------|----------|------|------------|----------|------|--|-------------------------------------|--|--|--|--|--------|-------------------------------------|--|--|--|--|--|-------------|--|-------------------------------------|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4826051 | WGS84 - UTM33N LONGITUDE 123878 | ALTITUDE 188 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engeneering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR34.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min minutes seconds | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 9 _____ Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input checked="" type="checkbox"/> paved <input type="checkbox"/> other _____ <input type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input checked="" type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | none | few | moderate | many | very dense | distance | cars | | <input checked="" type="checkbox"/> | | | | | trucks | <input checked="" type="checkbox"/> | | | | | | pedestrians | | <input checked="" type="checkbox"/> | | | | | other | <input checked="" type="checkbox"/> | | | | | |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Buildings | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | FREQUENCY: _____ Hz (if computed in the field) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

- Durata: rispettata
- Stazionarietà: rispettata
- Isotropia: rispettata
- Assenza di disturbi: rispettata
- Plausibilità fisica: rispettata
- Robustezza statistica: rispettata

MISURA TIPO A1

HVSR34_MS2

Peak frequency (Hz): 16.4 (±5.6)

Peak HVSR value: 3.0 (±0.6)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 16.391 > 0.5 (OK)
- #2. [nc > 200]: 38027 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: yes, at frequency 4.1Hz (OK)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: (NO)
- #3. [A0 > 2]: 3.0 > 2 (OK)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (NO)
- #5. [sigmaf < epsilon(f0)]: 5.563 > 0.820 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.647 < 1.58 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.

window length (s) **Min. freq.: 0.25Hz**
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion and all HVSRs
 full output

step#3 - directivity analysis
 frequencies to highlight: Hz

3D motion
 save video

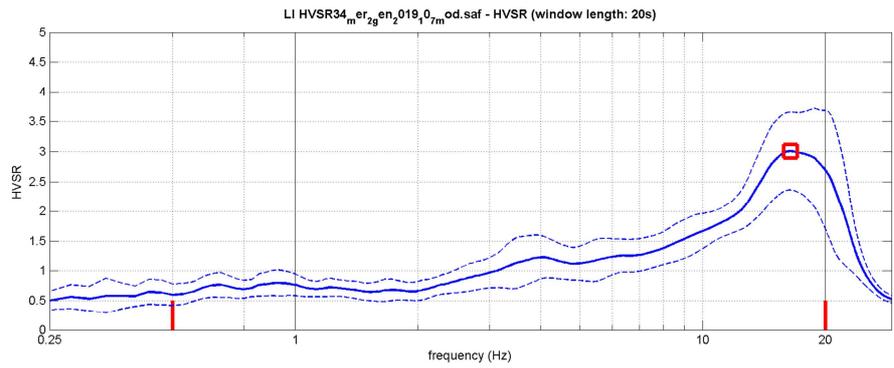
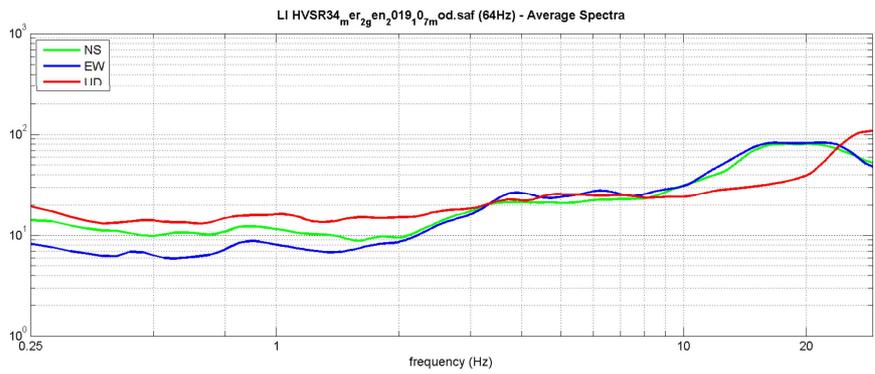
save - option#1: save HVSR as it is
 save HV from to Hz

save - option#2: picking H/V curve

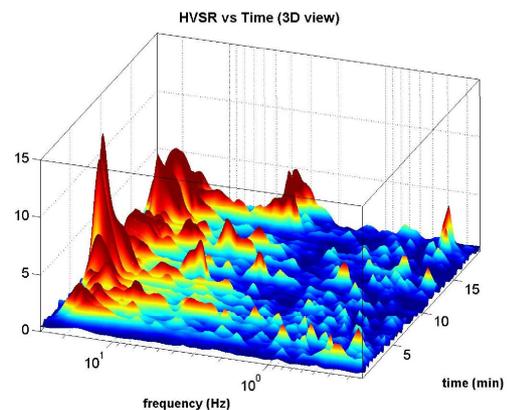
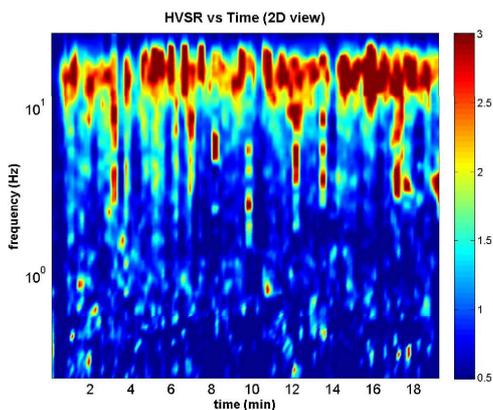
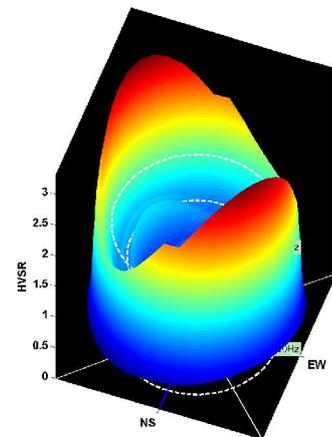
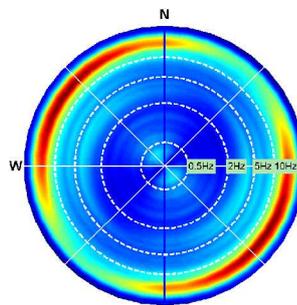
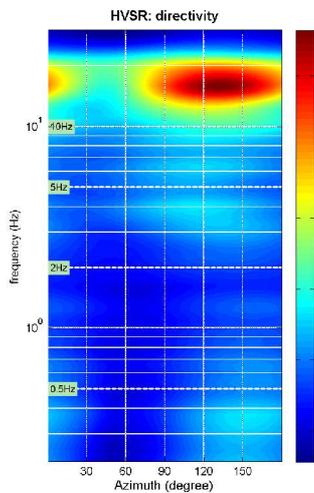
quick analysis (f-Vs/|H|)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

highlight a frequency
 Hz

directivity over time
 time step: s



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/a, Modeling & Picking" panels and upload the saved HV curve



HVSR35_MS2

| DATE 02.01.2019 | HOUR 10.53 | PLACE Via del Castellaccio Loc. Montenero - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|----------|------|------------|----------|------------|----------|------|--|-------------------------------------|--|--|--|--|--------|-------------------------------------|--|--|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4826487 | WGS84 - UTM33N LONGITUDE 124130 | ALTITUDE 148 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR35.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min minutes seconds | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 10 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND TYPE | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <input checked="" type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input type="checkbox"/> scattered <input checked="" type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | <input checked="" type="checkbox"/> | | | | | trucks | <input checked="" type="checkbox"/> | | | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | <input checked="" type="checkbox"/> | | | | | |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz (if computed in the field) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

- Durata: rispettata
- Stazionarietà: rispettata
- Isotropia: rispettata
- Assenza di disturbi: rispettata
- Plausibilità fisica: rispettata
- Robustezza statistica: rispettata

MISURA TIPO A1

Peak frequency (Hz): 4.3 (±2.9)
Peak HVSR value: 2.3 (±0.6)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 4.317 > 0.5 (OK)
- #2. [nc > 200]: 10101 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: yes, at frequency 1.1Hz (OK)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes, at frequency 17.0Hz (OK)
- #3. [A0 > 2]: 2.3 > 2 (OK)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (NO)
- #5. [sigmaf < epsilon(f0)]: 2.864 > 0.216 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.637 < 1.58 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.

window length (s) **Min. freq.: 0.25Hz**
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion and all HVSRs
 full output

step#3 - directivity analysis
 frequencies to highlight: Hz

3D motion
 save video

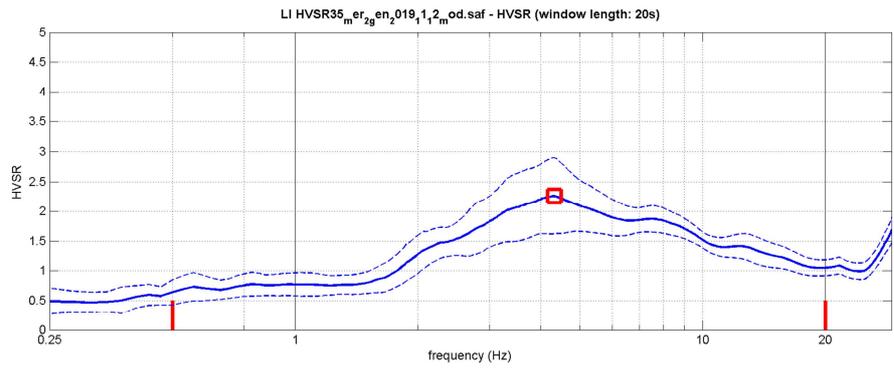
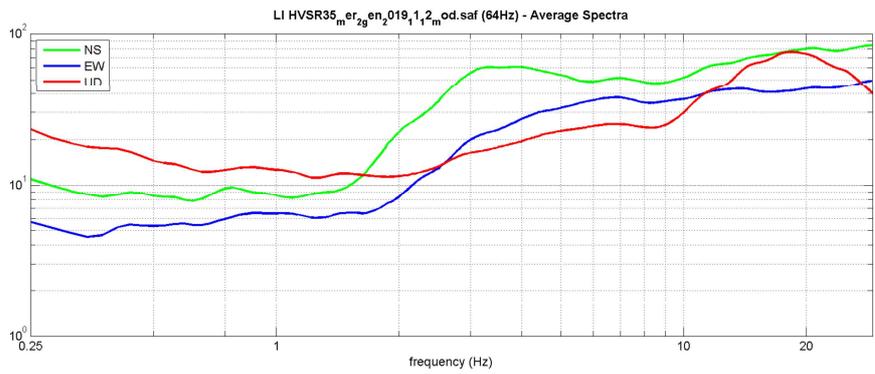
save - option#1: save HVSR as it is
 save HV from to Hz

save - option#2: picking H/V curve

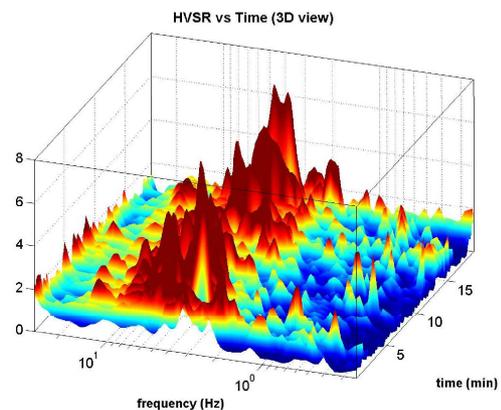
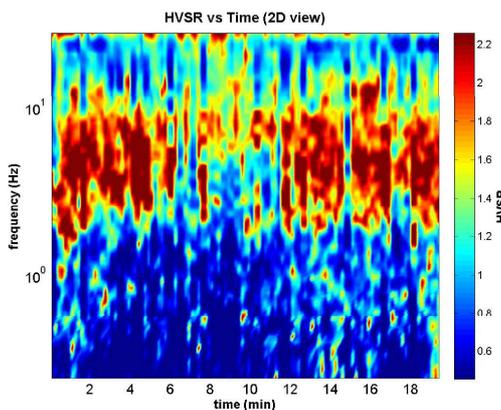
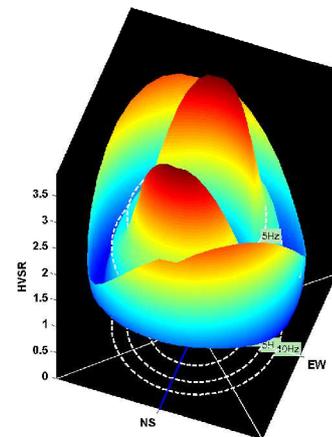
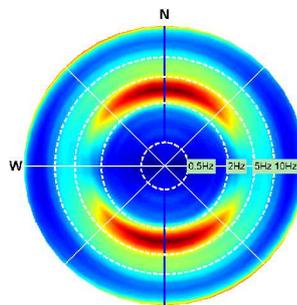
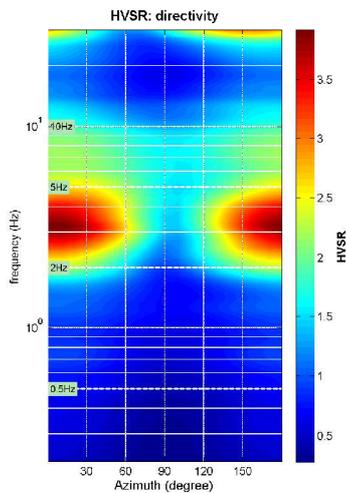
quick analysis (f-Vs/|H|)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

highlight a frequency
 Hz

directivity over time
 time step: s



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/a, Modeling & Picking" panels and upload the saved HV curve



HVSR36_MS2

| | | |
|--|--|--|
| DATE 02.01.2019 | HOOR 10.25 | PLACE Via del Castellaccio Loc. Montenero - Livorno |
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # |
| WGS84 - UTM33N LATITUDE 4826678 | WGS84 - UTM33N LONGITUDE 123989 | ALTITUDE 131 m slm |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | |
| STATION # | SENSOR # | DISK # |
| FILE NAME HVSR36.saf | | POINT # |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min minutes seconds |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | |
| Temperature (approx): 10 Remarks _____ | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | |
| TYPE | <input checked="" type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ | |
| <input type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | |
| BUILDING DENSITY <input type="checkbox"/> none <input checked="" type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | |
| TRANSIENTS | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | |
| | NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Trees | |
| OBSERVATIONS | | FREQUENCY: _____ Hz (if computed in the field) |



Qualità della misura:

MISURA TIPO A2

HVSR36_MS2

Peak frequency (Hz): 3.9 (±2.5)

Peak HVSR value: 1.2 (±0.4)

==== Criteria for a reliable H/V curve =====

- #1. [$f_0 > 10/Lw$]: $3.941 > 0.5$ (OK)
- #2. [$n_c > 200$]: $9144 > 200$ (OK)
- #3. [$f_0 > 0.5\text{Hz}$; $\sigma_A(f) < 2$ for $0.5f_0 < f < 2f_0$] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f^- in the range [$f_0/4, f_0$] | $AH/V(f^-) < A_0/2$]: yes, at frequency 1.0Hz (OK)
- #2. [exists f^+ in the range [$f_0, 4f_0$] | $AH/V(f^+) < A_0/2$]: yes, at frequency 14.5Hz (OK)
- #3. [$A_0 > 2$]: $1.2 < 2$ (NO)
- #4. [$f_{\text{peak}}[Ah/v(f) \pm \sigma_A(f)] = f_0 \pm 5\%$]: (NO)
- #5. [$\sigma_{\text{mf}} < \epsilon(f_0)$]: $2.535 > 0.197$ (NO)
- #6. [$\sigma_A(f_0) < \theta(f_0)$]: $0.366 < 1.58$ (OK)

show data **reset** **show location** **field notes**

step#1 (optional) - decimate
 new frequency **resample**

step#2 - H/V computation
remove events both Rad. & Tr. **clean axes**
 window length (s) **Min. freq.: 0.25Hz**
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion and all HVSRs
 full output **compute**

step#3 - directivity analysis
 frequencies to highlight: Hz **compute**

3D motion
 save video **show 3D motion**

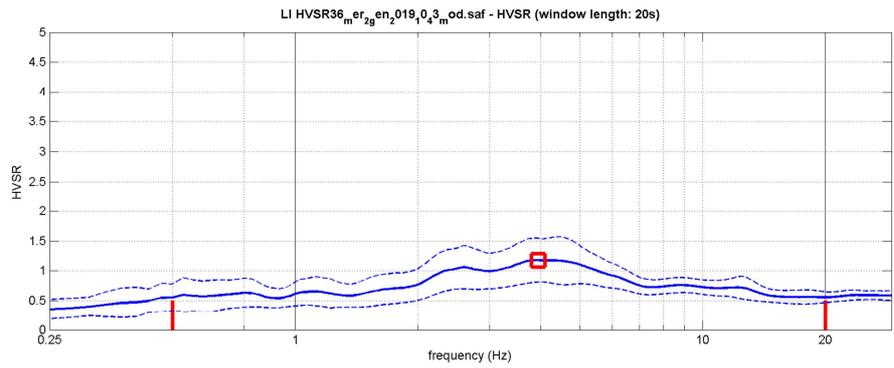
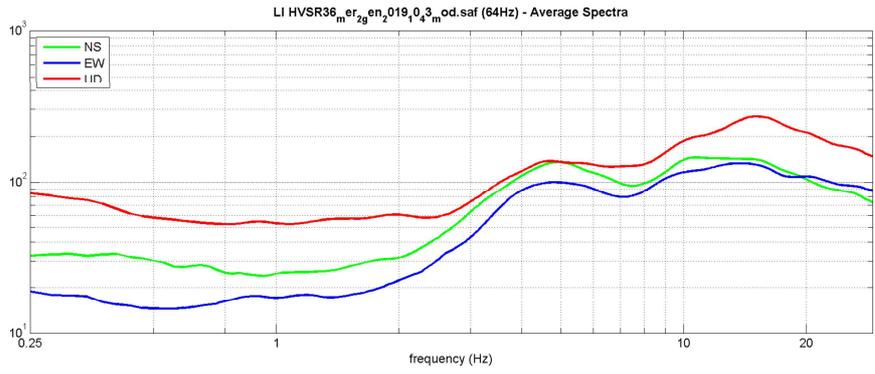
save - option#1: save HVSR as it is
 save HV from to Hz
save HV curve (as it is)

save - option#2: picking H/V curve
pick HV curve **save picked HV**

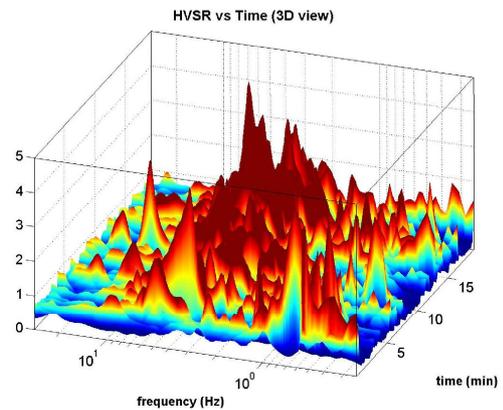
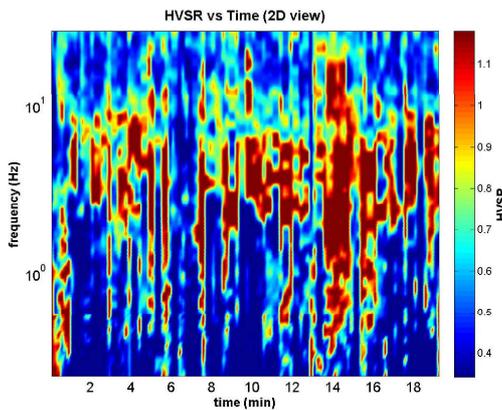
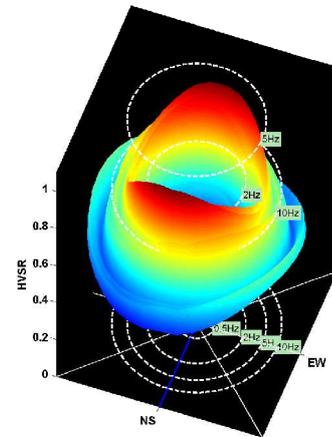
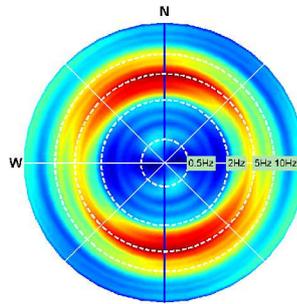
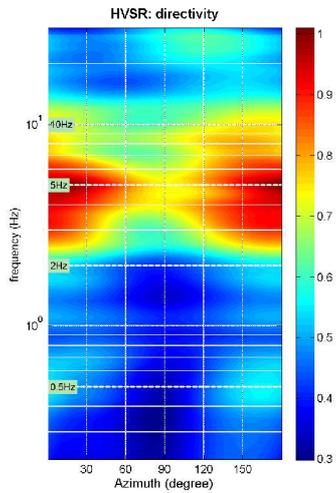
quick analysis (f-Vs/|H|)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock
clean **compute**

highlight a frequency
draw/highlight Hz

directivity over time
directivity in time time step: s



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the HV curve, go to the "Velocity Spectrum/a, Modeling & Picking" panels and upload the saved HV curve



HVSR37_MS2

| DATE 03.01.2019 | HOOR 13.06 | PLACE Via Antonio Corazzi - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|------|-----|----------|------|------------|----------|------|--|-------------------------------------|--|--|--|--|--------|-------------------------------------|--|--|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|--|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4830605 | WGS84 - UTM33N LONGITUDE 121326 | ALTITUDE 9 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engeneering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR37.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes</small> <small>seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 10 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input checked="" type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input type="checkbox"/> scattered <input checked="" type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | <input checked="" type="checkbox"/> | | | | | trucks | <input checked="" type="checkbox"/> | | | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | <input checked="" type="checkbox"/> | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Buildings |
| | | | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

MISURA TIPO A2

HVSR37_MS2

Peak frequency (Hz): 0.7 (±0.4)
Peak HVSR value: 1.2 (±0.2)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 0.688 > 0.5 (OK)
- #2. [nc > 200]: 1211 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: (NO)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes, at frequency 2.8Hz (OK)
- #3. [A0 > 2]: 1.2 < 2 (NO)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaf < epsilon(f0)]: 0.354 > 0.103 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.258 < 2 (OK)

step#1 (optional) - decimate
 new frequency

step#2 - H/V computation
 both Rad. & Tr.
 window length (s) Min. freq.: 0.25Hz
 tapering (%)
 outlier tolerance threshold
 spectral smoothing (triangular window)
 show particle motion and all HVSRs
 full output

step#3 - directivity analysis
 frequencies to highlight: Hz

3D motion
 save video

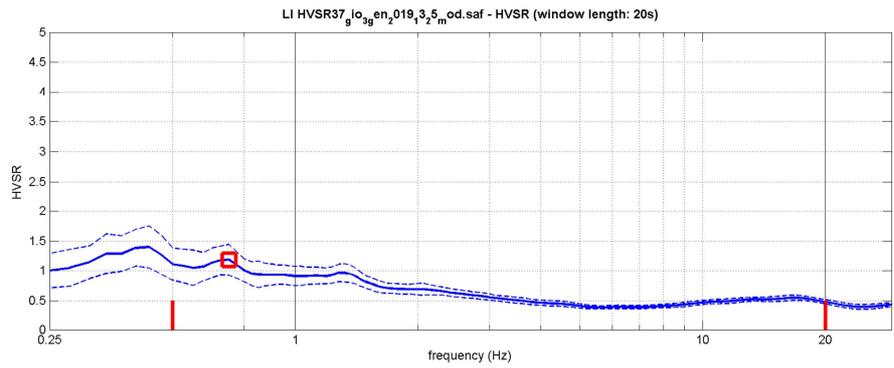
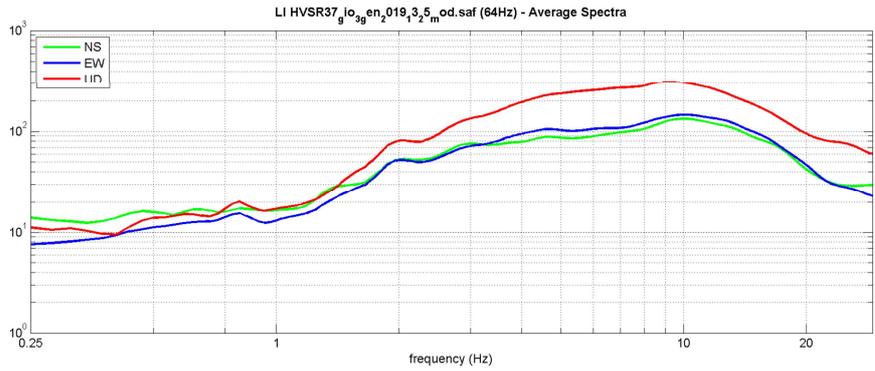
save - option#1: save HVSR as it is
 save HV from to Hz

save - option#2: picking H/V curve

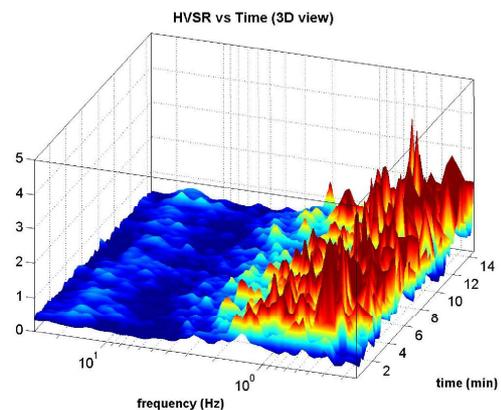
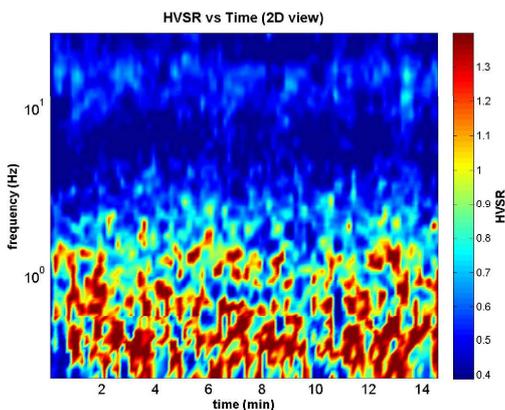
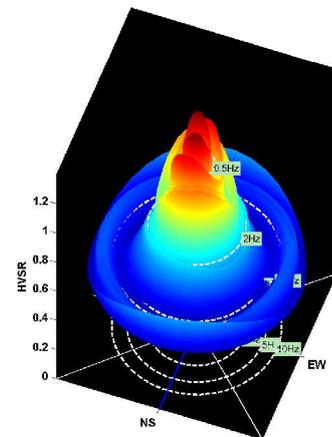
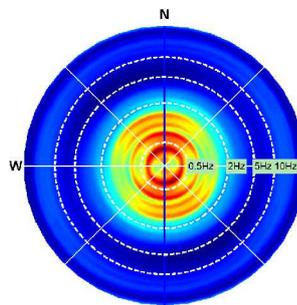
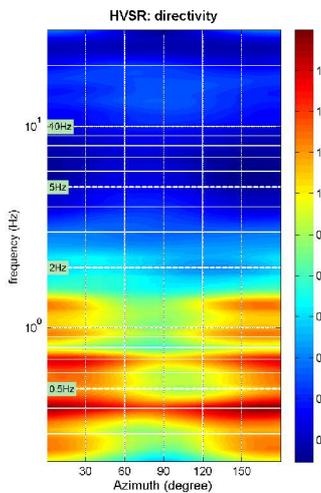
quick analysis (f-Vs/|H|)
 average Vs (m/s) (from surface to bedrock)
 depth of the bedrock (m)
 Vs of the bedrock

highlight a frequency
 Hz

directivity over time
 time step: s



To model the HVSR (also jointly with MASW or ReMi/ESAC data), save the H/V curve, go to the "Velocity Spectrum/a, Modeling & Picking" panels and upload the saved H/V curve



HVSR38_MS2

| DATE 10.01.2019 | HOUR 13.50 | PLACE Via Sgarallino - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|----------|------|------------|----------|------------|----------|------|--|-------------------------------------|--|--|--|--|--------|-------------------------------------|--|--|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|---|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4833362 | WGS84 - UTM33N LONGITUDE 122221 | ALTITUDE 9 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR38.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes</small> <small>seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 11 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input checked="" type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input type="checkbox"/> scattered <input checked="" type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | <input checked="" type="checkbox"/> | | | | | trucks | <input checked="" type="checkbox"/> | | | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | <input checked="" type="checkbox"/> | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Buildings |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

MISURA TIPO A2

HVSR38_MS2

Peak frequency (Hz): 0.7 (±0.4)
Peak HVSR value: 1.2 (±0.2)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 0.688 > 0.5 (OK)
- #2. [nc > 200]: 1211 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: (NO)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes, at frequency 2.8Hz (OK)
- #3. [A0 > 2]: 1.2 < 2 (NO)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaf < epsilon(f0)]: 0.354 > 0.103 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.258 < 2 (OK)

show data reset show location

step#1 (optional) - decimate
 64Hz new frequency resample

step#2 - H/V computation
 remove events both Rad. & Tr. clean axes
 20 window length (s)
 8 tapering (%)
 9 outlier tolerance threshold
 15% spectral smoothing (triangular window)
 show particle motion (raw data)
 full output compute

step#3a (optional) - directivity analysis
 compute max freq: 32 Hz

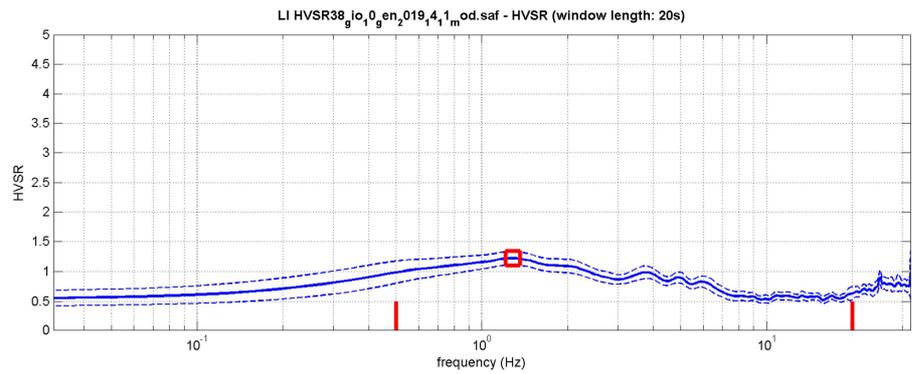
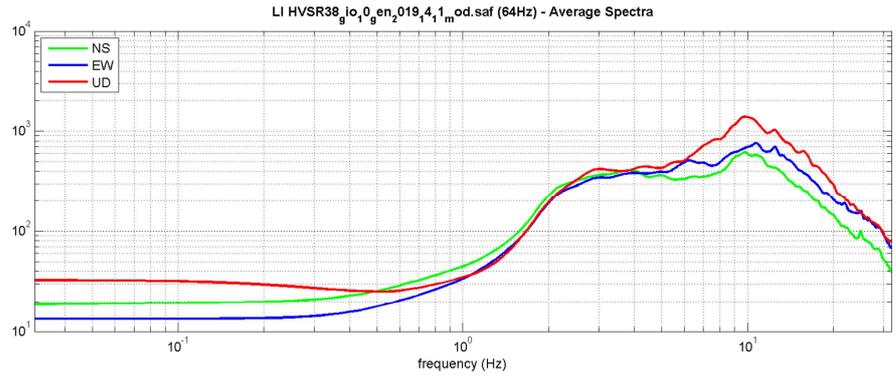
step#3b (optional) - directivity over time
 directivity in time time step: 60 s

save - option#1: save HVSR as it is
 save HV from 0.05 to 64 Hz
 save HV curve (as it is)

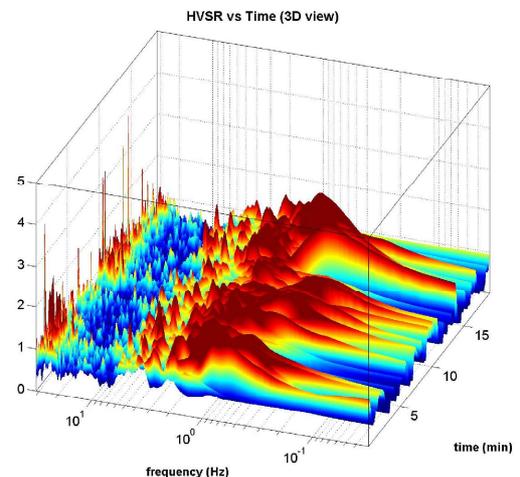
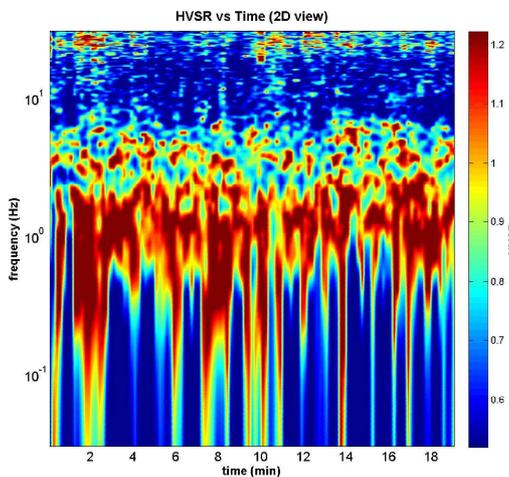
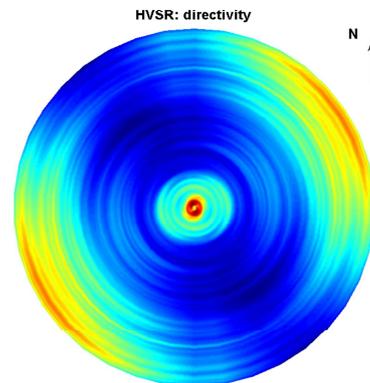
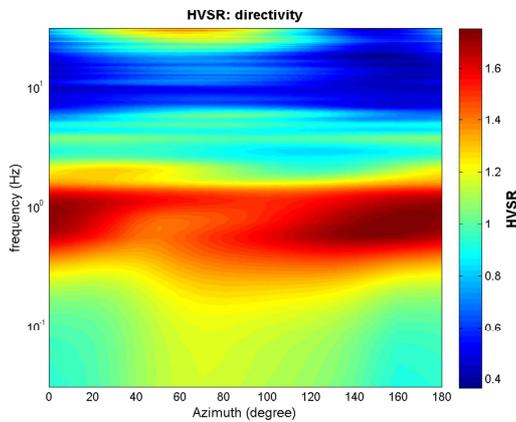
save - option#2: picking H/V curve
 pick HV curve save picked HV

quick analysis (f=Vs/4H)
 100 average Vs (m/s) (from surface to bedrock)
 20 depth of the bedrock (m)
 1000 Vs of the bedrock
 clean compute

www.winmasw.com



To model the HVSR (also jointly with MASW or ReM/ESAC data), save the HV curve, go to the "Velocity Spectrum/s, Modeling & Picking" panels and upload the saved HV curve



HVSR39_MS2

| DATE 02.01.2019 | HOUR 11.26 | PLACE Via di Quercianella Loc. Castellaccio - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|------|-----|----------|------|------------|----------|------|--|-------------------------------------|--|--|--|--|--------|-------------------------------------|--|--|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|--|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4824862 | WGS84 - UTM33N LONGITUDE 125129 | ALTITUDE 275 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR39.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min minutes seconds | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 11 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input checked="" type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input type="checkbox"/> dry soil <input checked="" type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input checked="" type="checkbox"/> none <input type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | <input checked="" type="checkbox"/> | | | | | trucks | <input checked="" type="checkbox"/> | | | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | <input checked="" type="checkbox"/> | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Trees |
| | | | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz (if computed in the field) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

MISURA TIPO A2

HVSR39_MS2

Peak frequency (Hz): 3.0 (±3.9)
Peak HVSR value: 1.7 (±0.2)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 3.034 > 0.5 (OK)
- #2. [nc > 200]: 7161 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: (NO)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes (considering standard deviations), at frequency Hz (OK)
- #3. [A0 > 2]: 1.7 < 2 (NO)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (NO)
- #5. [sigmaf < epsilon(f0)]: 3.865 > 0.152 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.248 < 1.58 (OK)

show data reset show location field notes

step#1 (optional) - decimate
 64Hz new frequency **resample**

step#2 - H/V computation
remove events both Rad. & Tr. **clean axes**
 20 window length (s) Min. freq.: 0.25Hz
 8 tapering (%)
 15 outlier tolerance threshold
 15% spectral smoothing (triangular window)
 show particle motion and all HVSRs
 full output **compute**

step#3 - directivity analysis
 frequencies to highlight: 0.5 2.0 5.0 10.0 Hz **compute**

3D motion
 save video **show 3D motion**

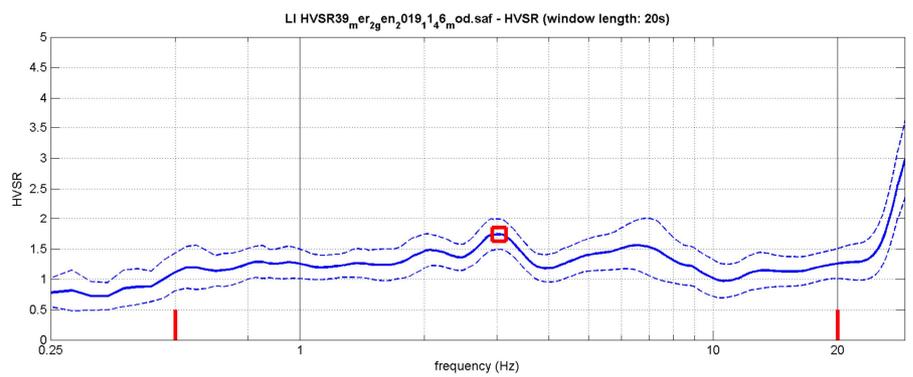
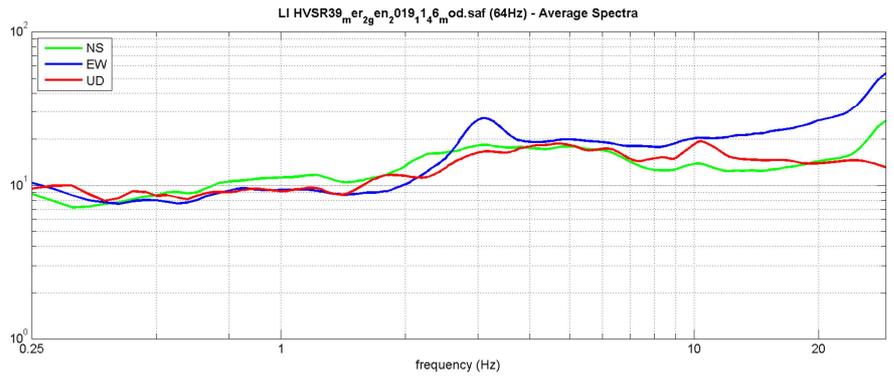
save - option#1: save HVSR as it is
 save HV from 0.25 to 30 Hz
save HV curve (as it is)

save - option#2: picking HV curve
pick HV curve **save picked HV**

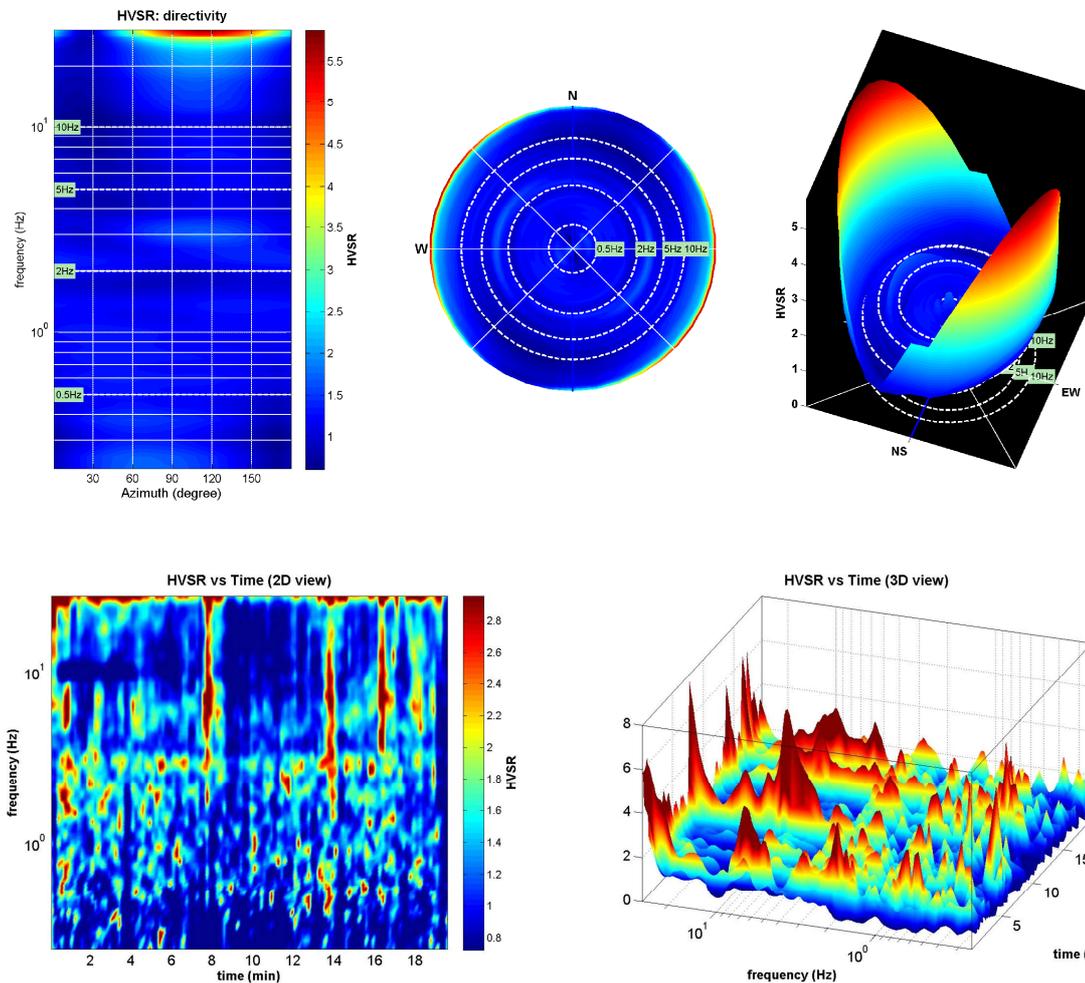
quick analysis (f-Vs/H)
 200 average Vs (m/s) (from surface to bedrock)
 20 depth of the bedrock (m)
 1000 Vs of the bedrock
clean **compute**

highlight a frequency
draw/highlight 10 Hz

directivity over time
directivity in time time step: 60 s



To model the HVSR (also jointly with MASW or ReM/EGAC data), save the HV curve, go to the "Velocity Spectrum/a, Modeling & Picking" panels and upload the saved HV curve



HVSR40_MS2

| DATE 11.02.2019 | HOUR 14.57 | PLACE Quercianella - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|-------------------------------------|------|------------|----------|------------|----------|------|--|--|-------------------------------------|--|--|--|--------|--|-------------------------------------|--|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|---|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4822797 | WGS84 - UTM33N LONGITUDE 124493 | ALTITUDE 74 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR40.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input type="checkbox"/> none <input checked="" type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 8 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input checked="" type="checkbox"/> earth (<input checked="" type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input checked="" type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input checked="" type="checkbox"/> none <input type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | | <input checked="" type="checkbox"/> | | | | trucks | | <input checked="" type="checkbox"/> | | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | <input checked="" type="checkbox"/> | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Trees |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

- Durata: rispettata
- Stazionarietà: rispettata
- Isotropia: rispettata
- Assenza di disturbi: rispettata
- Plausibilità fisica: rispettata
- Robustezza statistica: rispettata

MISURA TIPO A1

Peak frequency (Hz): 11.9 (±2.9)
Peak HVSR value: 3.2 (±0.4)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 11.887 > 0.5 (OK)
- #2. [nc > 200]: 26388 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: yes (considering standard deviations), at frequency 3.2Hz (OK)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes, at frequency 14.3Hz (OK)
- #3. [A0 > 2]: 3.2 > 2 (OK)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (NO)
- #5. [sigmaf < epsilon(f0)]: 2.873 > 0.594 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.389 < 1.58 (OK)

show data reset show location

step#1 (optional) - decimate
 64Hz new frequency resample

step#2 - H/V computation
 remove events both Rad. & Tr. clean axes
 20 window length (s)
 8 tapering (%)
 9 outlier tolerance threshold
 15% spectral smoothing (triangular window)
 show particle motion (raw data)
 full output compute

step#3a (optional) - directivity analysis
 compute max freq: 32 Hz

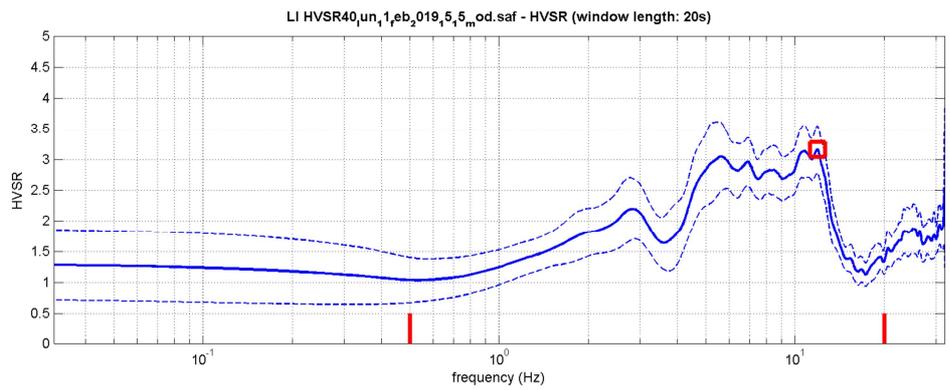
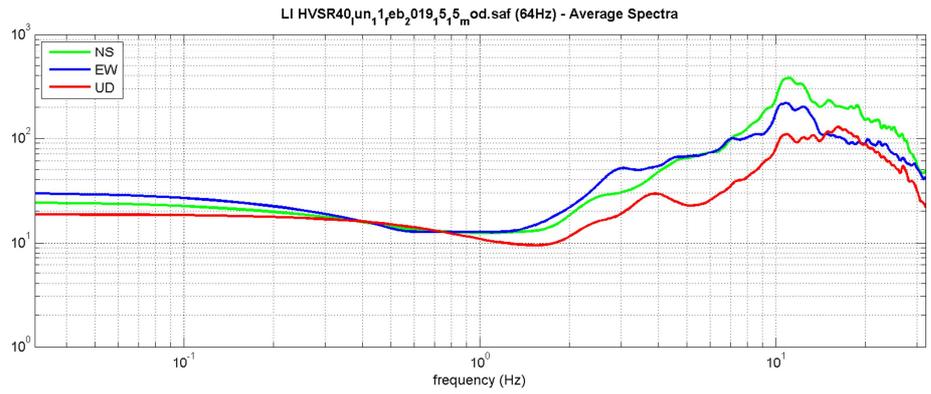
step#3b (optional) - directivity over time
 directivity in time time step: 60 s

save - option#1: save HVSR as it is
 save HV from 0.05 to 64 Hz
 save HV curve (as it is)

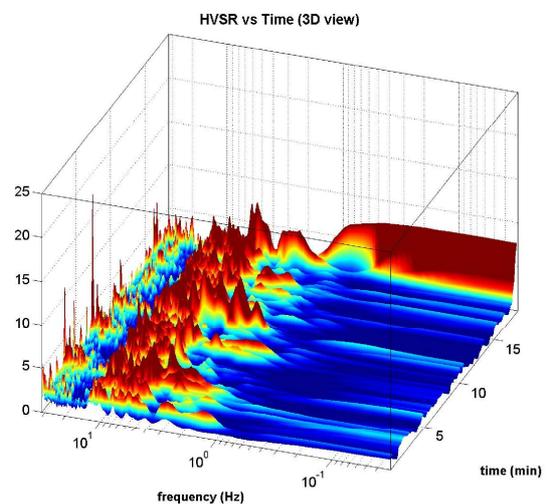
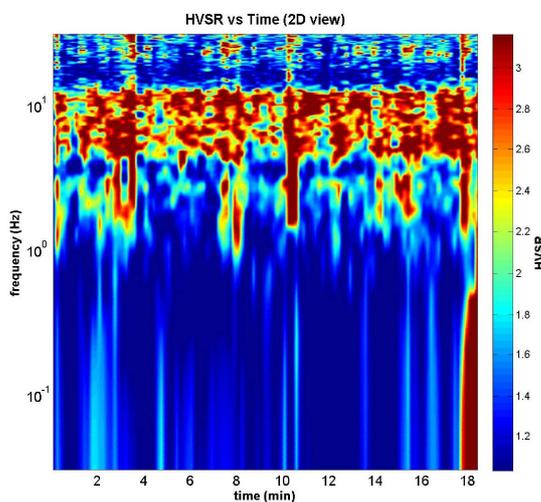
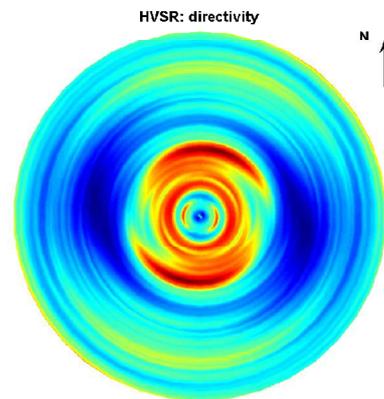
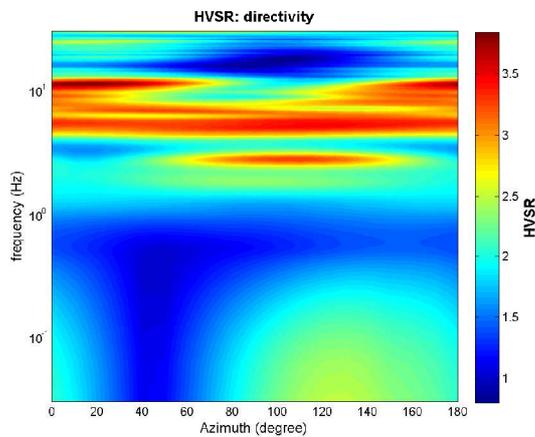
save - option#2: picking HV curve
 pick HV curve save picked HV

quick analysis (f=Vs/H)
 180 average Vs (m/s) (from surface to bedrock)
 20 depth of the bedrock (m)
 1000 Vs of the bedrock
 clean compute

www.winmasw.com



To model the HVSR (also jointly with MASW or ReMiESAC data), save the HV curve, go to the "Velocity Spectrums, Modeling & Picking" panels and upload the saved HV curve



HVSR41_MS2

| DATE 11.02.2019 | hour 13.59 | PLACE Quercianella - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|------|-----|----------|------|------------|----------|------|-------------------------------------|--|--|--|--|--|--------|-------------------------------------|--|--|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|---|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4822684 | WGS84 - UTM33N LONGITUDE 125210 | ALTITUDE 50 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR41.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input type="checkbox"/> none <input checked="" type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 8 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input checked="" type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input checked="" type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | <input checked="" type="checkbox"/> | | | | | | trucks | <input checked="" type="checkbox"/> | | | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | <input checked="" type="checkbox"/> | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Trees, Buildings |
| | | | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

- Durata: rispettata
- Stazionarietà: rispettata
- Isotropia: rispettata
- Assenza di disturbi: rispettata
- Plausibilità fisica: rispettata
- Robustezza statistica: rispettata

MISURA TIPO A1

Peak frequency (Hz): 10.6 (±3.0)
 Peak HVSR value: 3.1 (±0.7)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 10.573 > 0.5 (OK)
- #2. [nc > 200]: 23683 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: yes, at frequency 2.7Hz (OK)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes (considering standard deviations), at frequency Hz (OK)
- #3. [A0 > 2]: 3.1 > 2 (OK)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaf < epsilon(f0)]: 2.997 > 0.529 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.733 < 1.58 (OK)

show data **reset** **show location**

step#1 (optional) - decimate
 64Hz new frequency **resample**

step#2 - H/V computation
remove events both Rad. & Tr. **clean axes**
 20 window length (s)
 8 tapering (%)
 9 outlier tolerance threshold
 15% spectral smoothing (triangular window)
 show particle motion (raw data)
 full output **compute**

step#3a (optional) - directivity analysis
compute max freq: 32 Hz

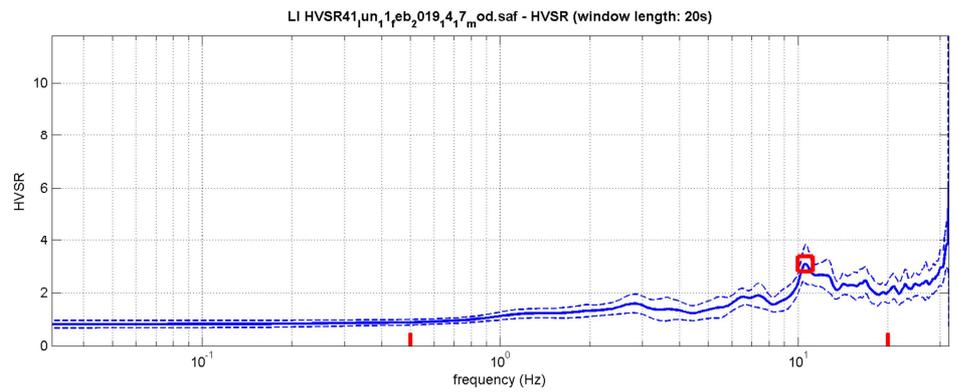
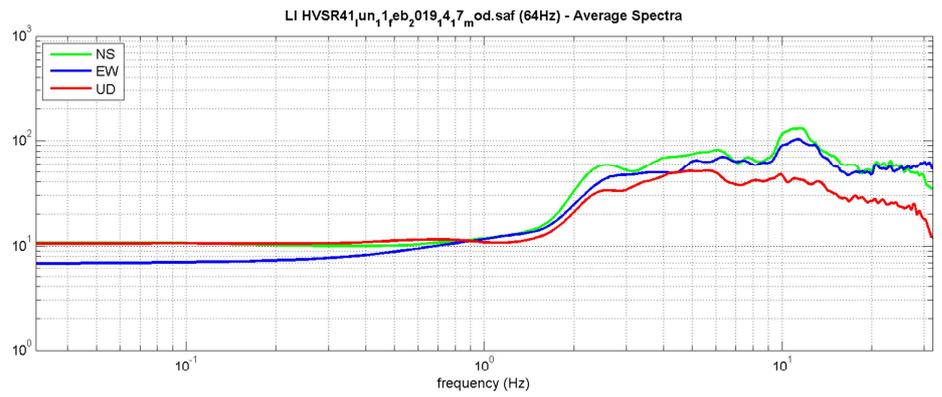
step#3b (optional) - directivity over time
directivity in time time step: 60 s

save - option#1: save HVSR as it is
 save HV from 0.05 to 64 Hz
save HV curve (as it is)

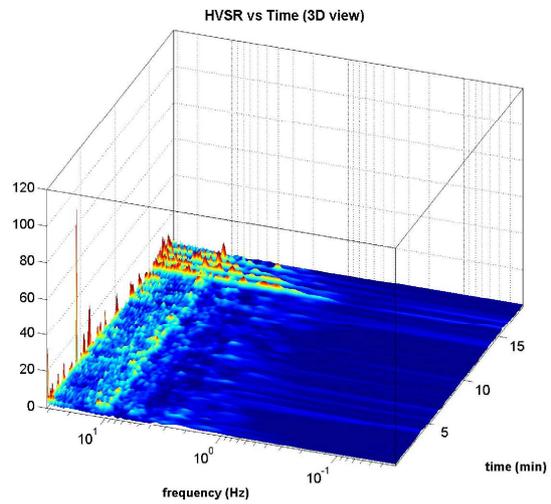
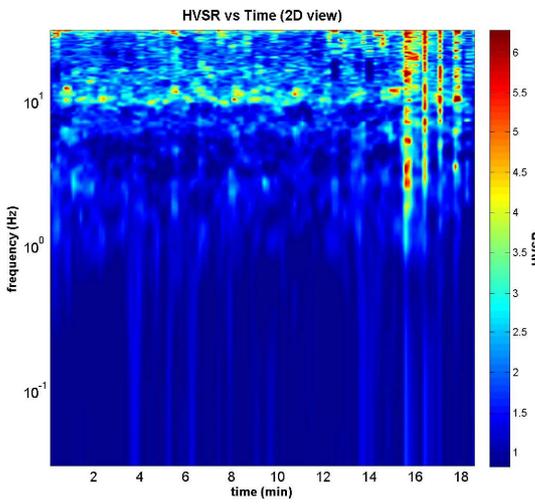
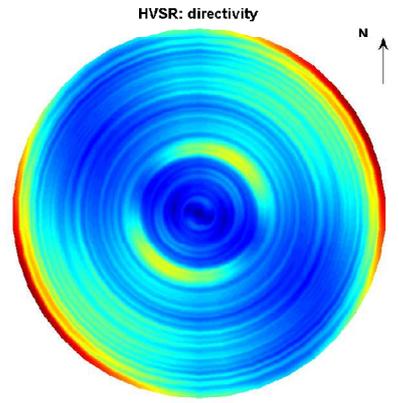
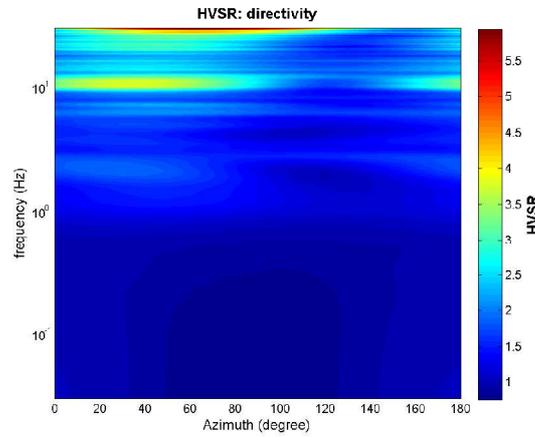
save - option#2: picking H/V curve
pick HV curve **save picked HV**

quick analysis (f=Vs/H)
 180 average Vs (m/s) (from surface to bedrock)
 20 depth of the bedrock (m)
 1000 Vs of the bedrock
clean **compute**

www.winmasw.com



To model the HVSR (also jointly with MASW or ReMi/SAC data), save the HV curve, go to the "Velocity Spectrum/s, Modeling & Picking" panels and upload the saved HV curve



HVSR42_MS2

| DATE 11.02.2019 | hour 14.25 | PLACE Quercianella - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|----------|------|------------|----------|------------|----------|------|-------------------------------------|--|--|--|--|--|--------|-------------------------------------|--|--|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|--|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4822878 | WGS84 - UTM33N LONGITUDE 124970 | ALTITUDE 90 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR42.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input type="checkbox"/> none <input checked="" type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 8 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input checked="" type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input checked="" type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | <input checked="" type="checkbox"/> | | | | | | trucks | <input checked="" type="checkbox"/> | | | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | <input checked="" type="checkbox"/> | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, poles, buildings, bridges, underground structures...) Trees, Buildings |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

MISURA TIPO A2

HVSR42_MS2

Peak frequency (Hz): 6.3 (±4.8)

Peak HVSR value: 1.6 (±0.2)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 6.319 > 0.5 (OK)
- #2. [nc > 200]: 14912 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: (NO)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: (NO)
- #3. [A0 > 2]: 1.6 < 2 (NO)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaf < epsilon(f0)]: 4.769 > 0.316 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.222 < 1.58 (OK)

show data **reset** **show location**

step#1 (optional) - decimate
 64Hz new frequency **resample**

step#2 - HV computation
remove events both Rad. & Tr. **clean axes**
 20 window length (s)
 8 tapering (%)
 9 outlier tolerance threshold
 15% spectral smoothing (triangular window)
 show particle motion (raw data)
 full output **compute**

step#3a (optional) - directivity analysis
compute max freq: 32 Hz

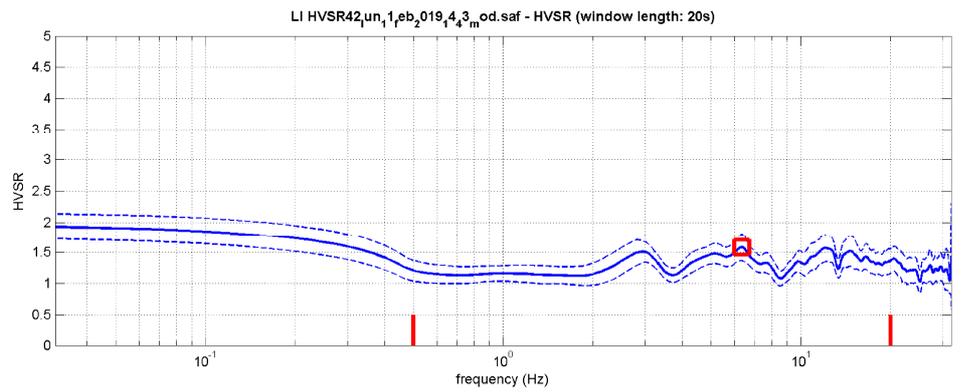
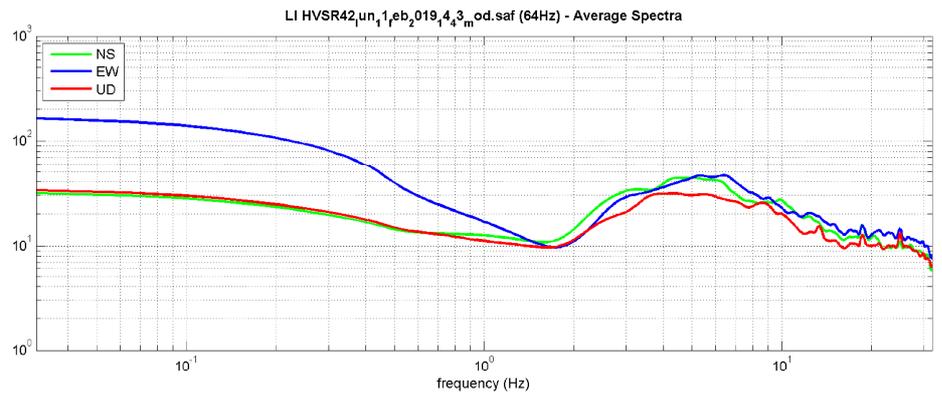
step#3b (optional) - directivity over time
directivity in time time step: 60 s

save - option#1: save HVSR as it is
 save HV from 0.05 to 64 Hz
save HV curve (as it is)

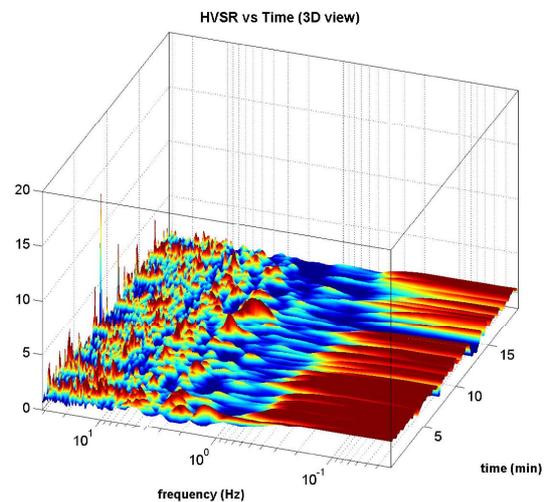
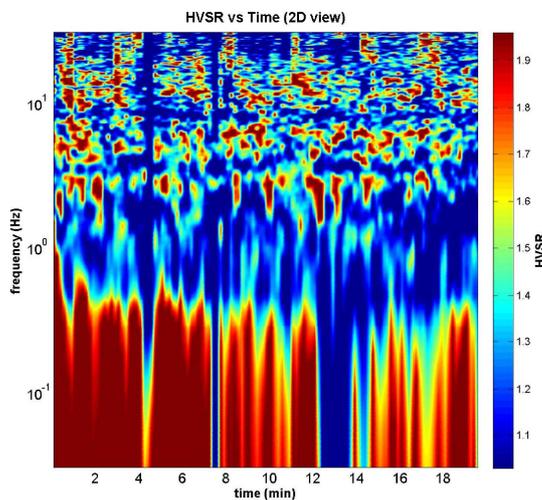
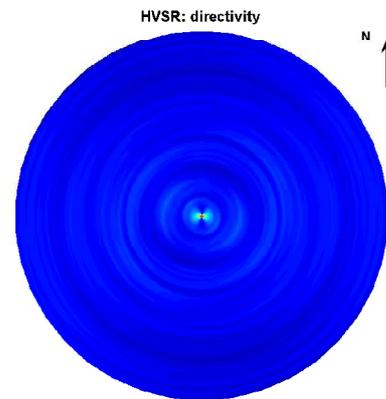
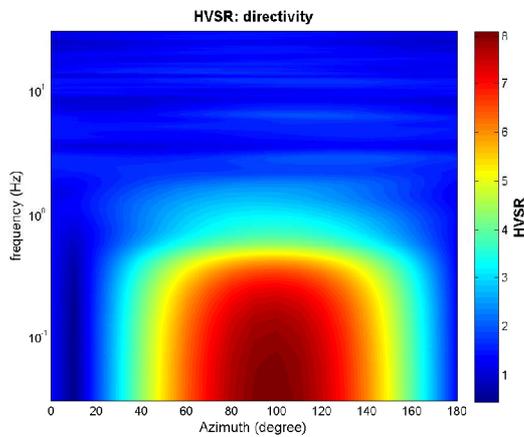
save - option#2: picking HV curve
pick HV curve **save picked HV**

quick analysis (f=Vs/4H)
 180 average Vs (m/s) (from surface to bedrock)
 20 depth of the bedrock (m)
 1000 Vs of the bedrock
clean **compute**

www.winmasw.com



To model the HVSR (also jointly with MASW or ReMIESAC data), save the HV curve, go to the "Velocity Spectrum/s, Modeling & Picking" panels and upload the saved HV curve



HVSR43_MS2

| DATE 11.02.2019 | HOOR 12.39 | PLACE Quercianella - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|-------------------------------------|-------------------------------------|----------|------|------------|----------|------|--|--|--|-------------------------------------|--|--|--------|--|--|-------------------------------------|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|---|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4821224 | WGS84 - UTM33N LONGITUDE 126074 | ALTITUDE 15 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR43.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input type="checkbox"/> none <input checked="" type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 9 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input checked="" type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input checked="" type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input checked="" type="checkbox"/> none <input type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td></td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td></td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | | | <input checked="" type="checkbox"/> | | | trucks | | | <input checked="" type="checkbox"/> | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | <input checked="" type="checkbox"/> | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ |
| | | | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | NEARBY STRUCTURES (trees, poles, buildings, bridges, underground structures...) Trees | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

MISURA TIPO A2

HVSR43_MS2

Peak frequency (Hz): 13.9 (±4.5)
Peak HVSR value: 1.4 (±0.2)

==== Criteria for a reliable H/V curve =====

- #1. $[f_0 > 10/Lw]$: $13.857 > 0.5$ (OK)
- #2. $[nc > 200]$: $31040 > 200$ (OK)
- #3. $[f_0 > 0.5\text{Hz}; \sigma_A(f) < 2 \text{ for } 0.5f_0 < f < 2f_0]$ (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. $[\text{exists } f^- \text{ in the range } [f_0/4, f_0] \mid AH/V(f^-) < A_0/2]$: (NO)
- #2. $[\text{exists } f^+ \text{ in the range } [f_0, 4f_0] \mid AH/V(f^+) < A_0/2]$: (NO)
- #3. $[A_0 > 2]$: $1.4 < 2$ (NO)
- #4. $[f_{\text{peak}}[Ah/v(f) \pm \sigma_A(f)] = f_0 \pm 5\%]$: (OK)
- #5. $[\sigma_{\text{maf}} < \epsilon(f_0)]$: $4.530 > 0.693$ (NO)
- #6. $[\sigma_A(f_0) < \theta(f_0)]$: $0.163 < 1.58$ (OK)

show data **reset** **show location**

step#1 (optional) - decimate
 64Hz new frequency **resample**

step#2 - HV computation
remove events both Rad. & Tr. **clean axes**
 20 window length (s)
 8 tapering (%)
 9 outlier tolerance threshold
 15% spectral smoothing (triangular window)
 show particle motion (raw data)
 full output **compute**

step#3a (optional) - directivity analysis
compute max freq: 32 Hz

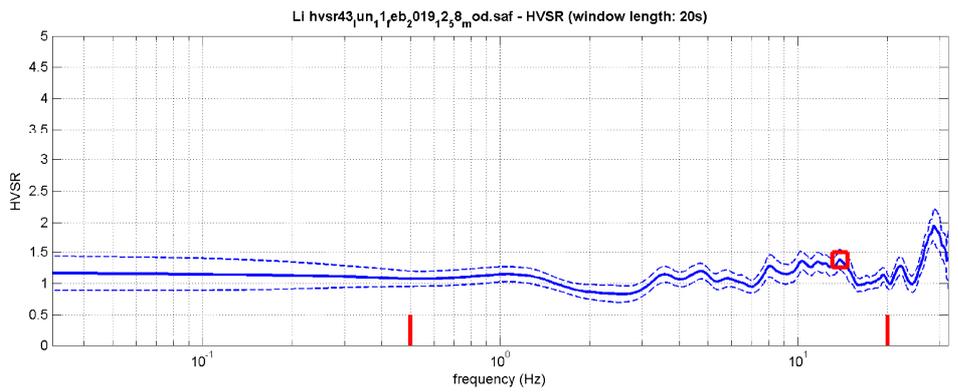
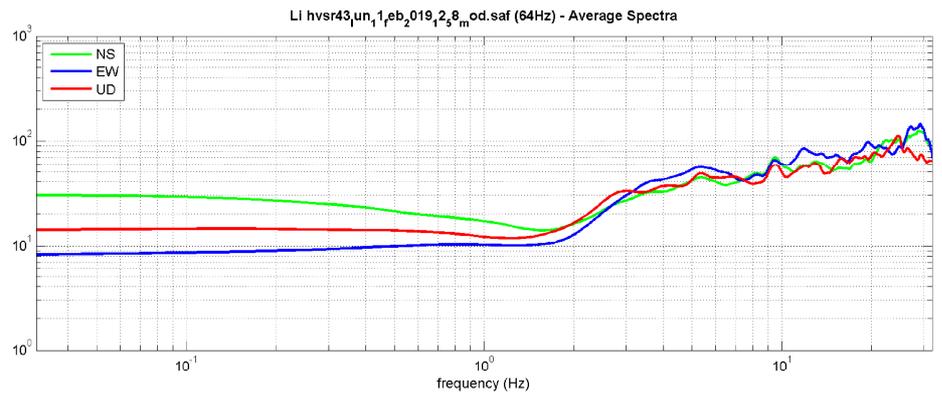
step#3b (optional) - directivity over time
directivity in time time step: 60 s

save - option#1: save HVSR as it is
 save HV from 0.05 to 64 Hz
save HV curve (as it is)

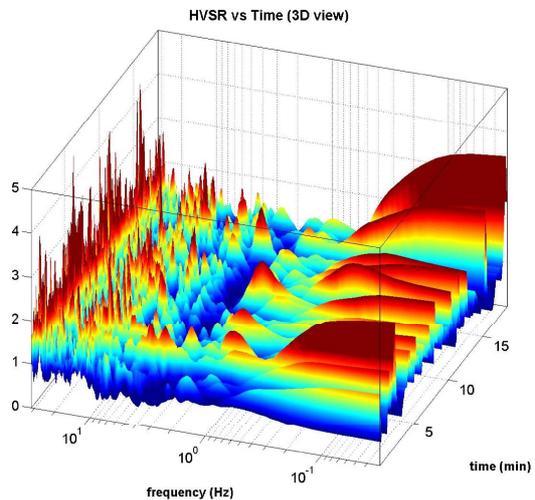
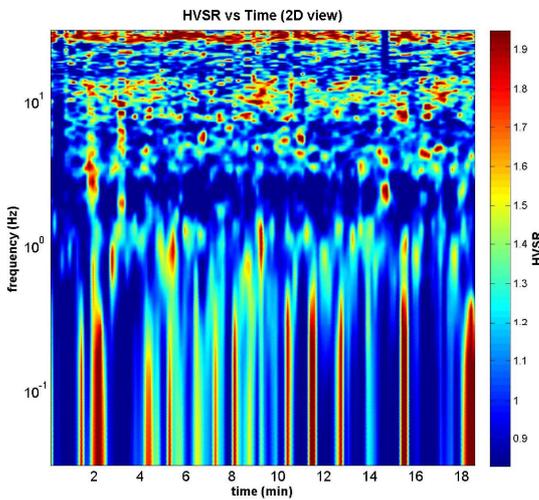
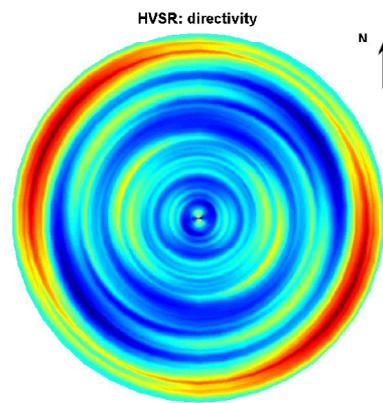
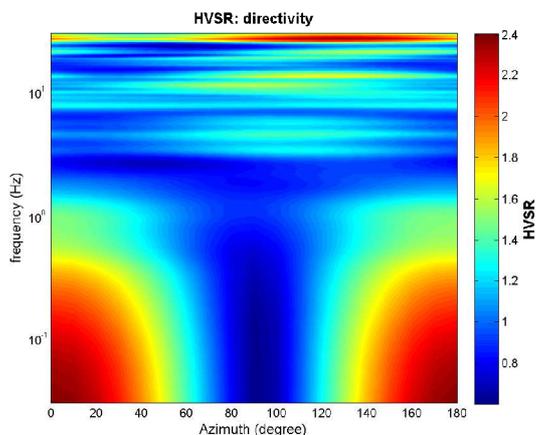
save - option#2: picking HV curve
pick HV curve **save picked HV**

quick analysis (f=Vs/4H)
 180 average Vs (m/s) (from surface to bedrock)
 20 depth of the bedrock (m)
 1000 Vs of the bedrock
clean **compute**

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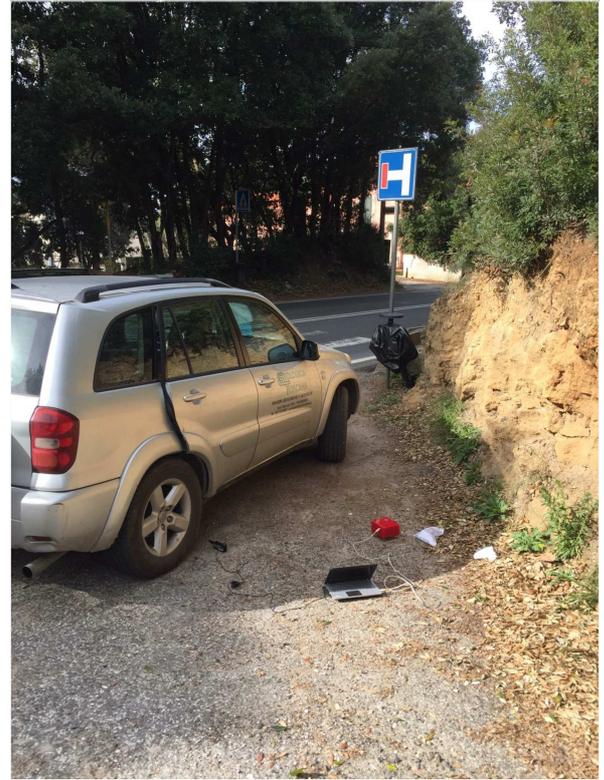


To model the HVSR (also jointly with MASW or ReMiESAC data), save the HV curve, go to the "Velocity Spectrum/s, Modeling & Picking" panels and upload the saved HV curve



HVSR44_MS2

| DATE 11.02.2019 | HOOR 13.04 | PLACE Quercianella - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|-------------------------------------|-------------------------------------|------------|----------|------|------------|----------|------|--|--|--|-------------------------------------|--|--|--------|--|--|-------------------------------------|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4821654 | WGS84 - UTM33N LONGITUDE 125798 | ALTITUDE 27 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engeneering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR44.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min minutes seconds | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input checked="" type="checkbox"/> none <input type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 9 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input checked="" type="checkbox"/> asphalt <input type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input checked="" type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td></td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td></td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | none | few | moderate | many | very dense | distance | cars | | | | <input checked="" type="checkbox"/> | | | trucks | | | <input checked="" type="checkbox"/> | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | <input checked="" type="checkbox"/> | | | | | |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Trees | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | FREQUENCY: _____ Hz (if computed in the field) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

MISURA TIPO A2

HVSR44_MS2

Peak frequency (Hz): 7.2 (±2.0)

Peak HVSR value: 1.4 (±0.2)

==== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 7.163 > 0.5 (OK)
- #2. [nc > 200]: 16619 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

==== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: (NO)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes, at frequency 11.2Hz (OK)
- #3. [A0 > 2]: 1.4 < 2 (NO)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaf < epsilon(f0)]: 1.963 > 0.358 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.204 < 1.58 (OK)

show data **reset** **show location**

step#1 (optional) - decimate
 64Hz new frequency **resample**

step#2 - H/V computation
remove events both Rad. & Tr. **clean axes**
 20 window length (s)
 8 tapering (%)
 9 outlier tolerance threshold
 15% spectral smoothing (triangular window)
 show particle motion (raw data)
 full output **compute**

step#3a (optional) - directivity analysis
compute max freq: 32 Hz

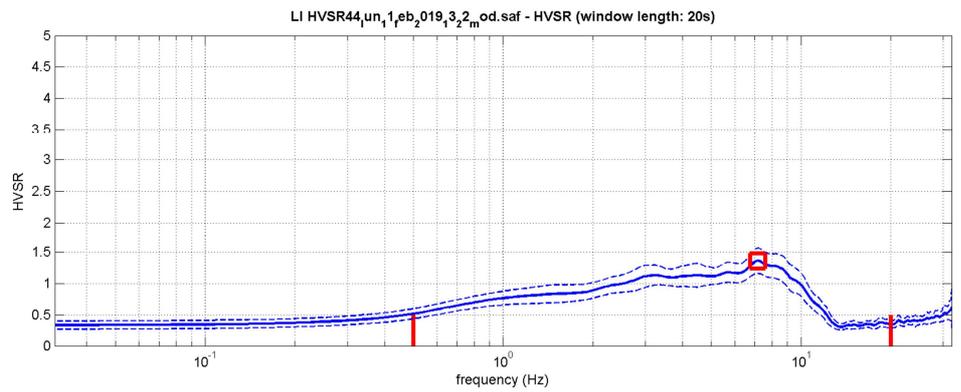
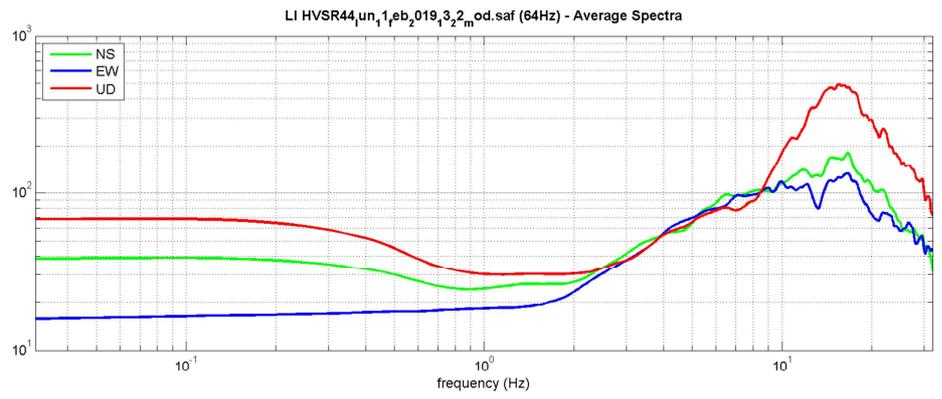
step#3b (optional) - directivity over time
directivity in time time step: 60 s

save - option#1: save HVSR as it is
 save H/V from 0.05 to 64 Hz
save HV curve (as it is)

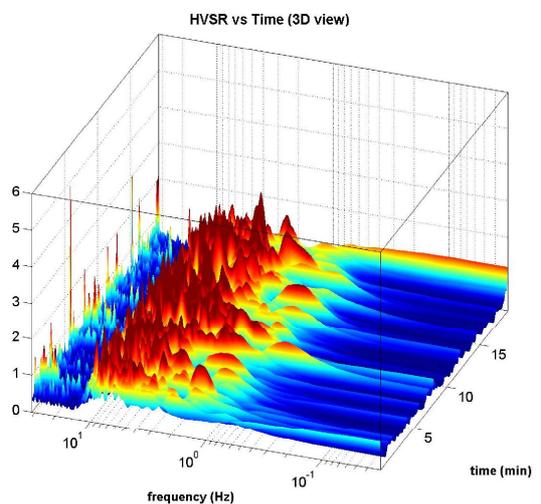
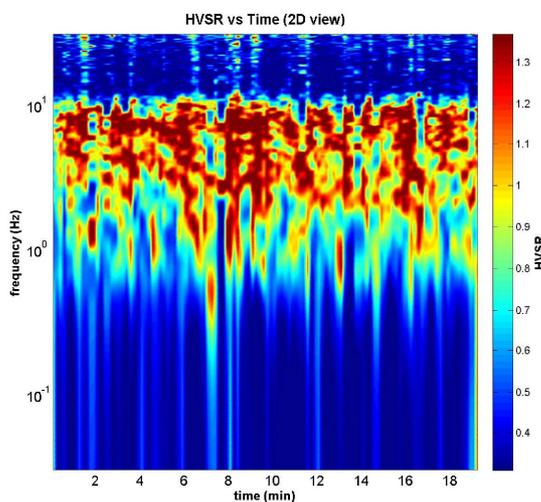
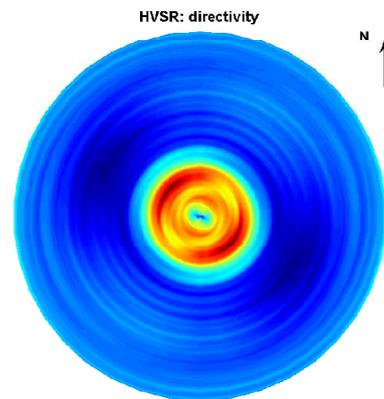
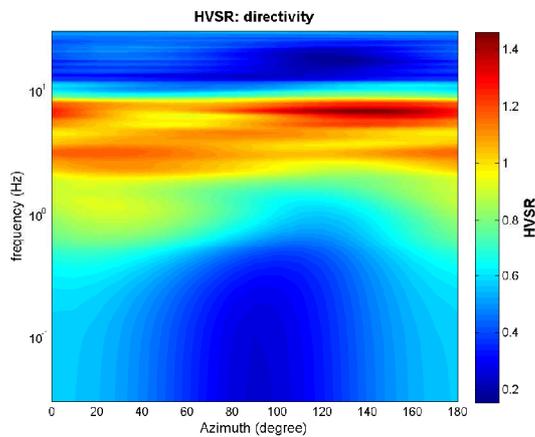
save - option#2: picking H/V curve
pick HV curve **save picked HV**

quick analysis (f=Vs/H)
 180 average Vs (m/s) (from surface to bedrock)
 20 depth of the bedrock (m)
 1000 Vs of the bedrock
clean **compute**

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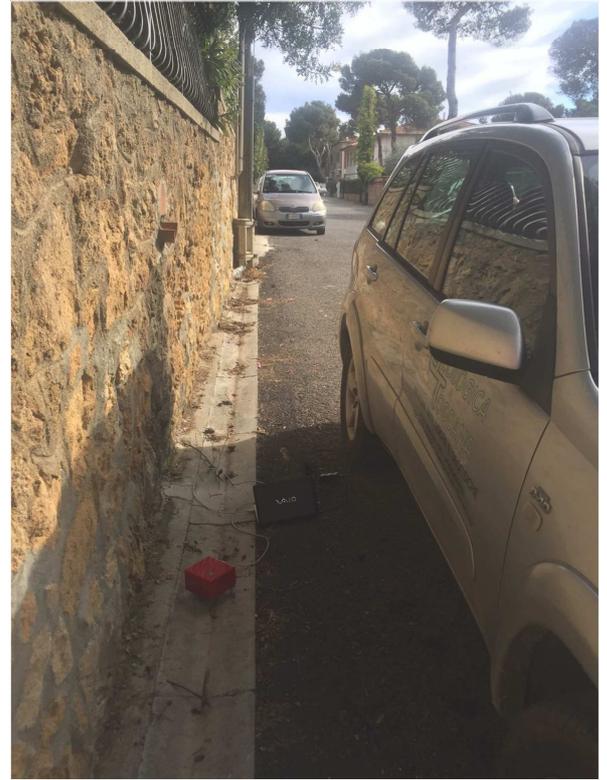


To model the HVSR (also jointly with MASW or ReMi/SAC data), save the HV curve, go to the "Velocity Spectrum/s, Modeling & Picking" panels and upload the saved HV curve



HVSR45_MS2

| DATE 11.02.2019 | hour 13.31 | PLACE Quercianella - Livorno | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|----------|------|------------|----------|------------|----------|------|--|-------------------------------------|--|--|--|--|--------|-------------------------------------|--|--|--|--|--|-------------|-------------------------------------|--|--|--|--|--|-------|-------------------------------------|--|--|--|--|--|---|
| OPERATOR Geologica Toscana S.n.c. | | GPS TYPE and # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WGS84 - UTM33N LATITUDE 4822092 | WGS84 - UTM33N LONGITUDE 125523 | ALTITUDE 32 m slm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION TYPE GPA Engineering | SENSOR TYPE 3D - 4,5 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATION # | SENSOR # | DISK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILE NAME HVSR45.saf | | POINT # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAIN | SAMPL. FREQ 300 Hz | REC. DURATION 20 min <small>minutes seconds</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEATHER | WIND <input type="checkbox"/> none <input checked="" type="checkbox"/> weak (5m/s) <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONDITIONS | RAIN <input checked="" type="checkbox"/> none <input type="checkbox"/> weak <input type="checkbox"/> medium <input type="checkbox"/> strong Measurement (if any): _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature (approx): 8 Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | <input type="checkbox"/> earth (<input type="checkbox"/> hard <input type="checkbox"/> soft) <input type="checkbox"/> gravel <input type="checkbox"/> sand <input type="checkbox"/> rock <input type="checkbox"/> grass = (<input type="checkbox"/> short <input type="checkbox"/> tall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | <input type="checkbox"/> asphalt <input checked="" type="checkbox"/> cement <input type="checkbox"/> concrete <input type="checkbox"/> paved <input type="checkbox"/> other _____ <input type="checkbox"/> dry soil <input type="checkbox"/> wet soil Remarks _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARTIFICIAL GROUND-SENSOR COUPLING <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING DENSITY <input type="checkbox"/> none <input checked="" type="checkbox"/> scattered <input type="checkbox"/> dense <input type="checkbox"/> other, type _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRANSIENTS | <table border="1"> <thead> <tr> <th></th> <th>none</th> <th>few</th> <th>moderate</th> <th>many</th> <th>very dense</th> <th>distance</th> </tr> </thead> <tbody> <tr> <td>cars</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>trucks</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pedestrians</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>other</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | none | few | moderate | many | very dense | distance | cars | | <input checked="" type="checkbox"/> | | | | | trucks | <input checked="" type="checkbox"/> | | | | | | pedestrians | <input checked="" type="checkbox"/> | | | | | | other | <input checked="" type="checkbox"/> | | | | | | MONOCHROMATIC NOISE SOURCES (factories, works, pumps, rivers...) <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, type _____ NEARBY STRUCTURES (description, height, distance) (trees, polls, buildings, bridges, underground structures...) Trees, Buildings |
| | none | few | moderate | many | very dense | distance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cars | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trucks | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pedestrians | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| other | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OBSERVATIONS | FREQUENCY: _____ Hz <small>(if computed in the field)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Qualità della misura:

MISURA TIPO A2

HVSR45_MS2

Peak frequency (Hz): 2.4 (±5.4)
Peak HVSR value: 1.9 (±0.4)

=== Criteria for a reliable H/V curve =====

- #1. [f0 > 10/Lw]: 2.409 > 0.5 (OK)
- #2. [nc > 200]: 5395 > 200 (OK)
- #3. [f0 > 0.5Hz; sigmaA(f) < 2 for 0.5f0 < f < 2f0] (OK)

=== Criteria for a clear H/V peak (at least 5 should be fulfilled) =====

- #1. [exists f- in the range [f0/4, f0] | AH/V(f-) < A0/2]: yes, at frequency 0.6Hz (OK)
- #2. [exists f+ in the range [f0, 4f0] | AH/V(f+) < A0/2]: yes (considering standard deviations), at frequency Hz (OK)
- #3. [A0 > 2]: 1.9 < 2 (NO)
- #4. [fpeak[Ah/v(f) ± sigmaA(f)] = f0 ± 5%]: (OK)
- #5. [sigmaf < epsilon(f0)]: 5.408 > 0.120 (NO)
- #6. [sigmaA(f0) < theta(f0)]: 0.384 < 1.58 (OK)

show data **reset** **show location**

step#1 (optional) - decimate
 64Hz new frequency **resample**

step#2 - H/V computation
remove events both Rad. & Tr. **clean axes**
 20 window length (s)
 8 tapering (%)
 9 outlier tolerance threshold
 15% spectral smoothing (triangular window)
 show particle motion (raw data)
 full output **compute**

step#3a (optional) - directivity analysis
compute max freq: 32 Hz

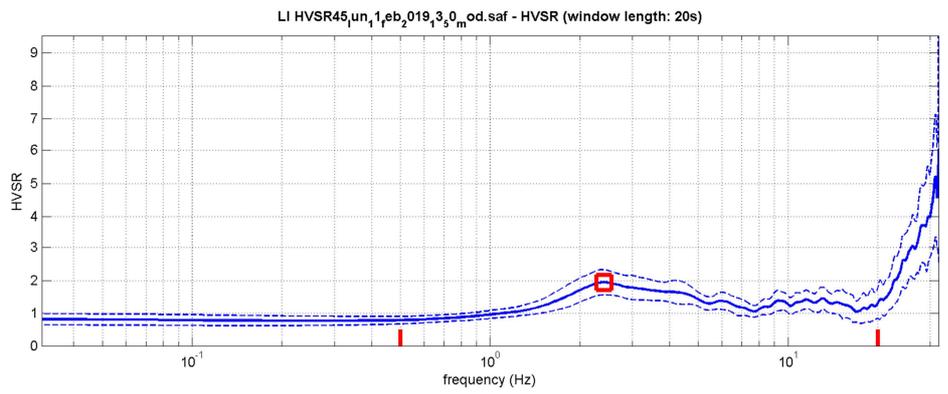
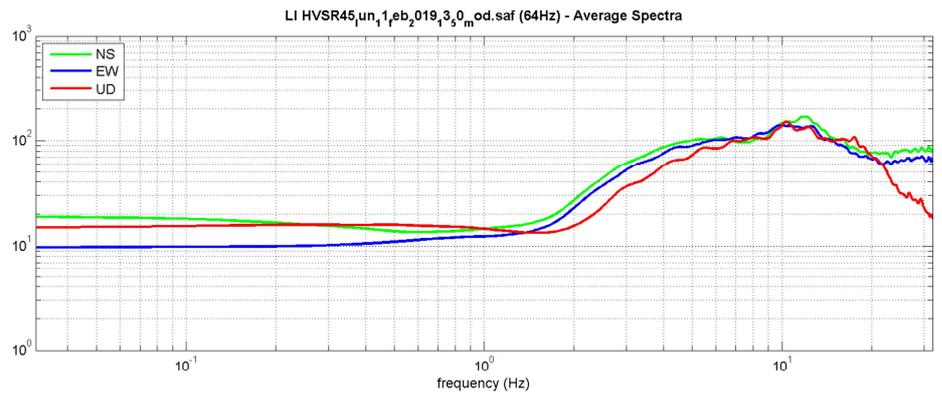
step#3b (optional) - directivity over time
directivity in time time step: 60 s

save - option#1: save HVSR as it is
 save HV from 0.05 to 64 Hz
save HV curve (as it is)

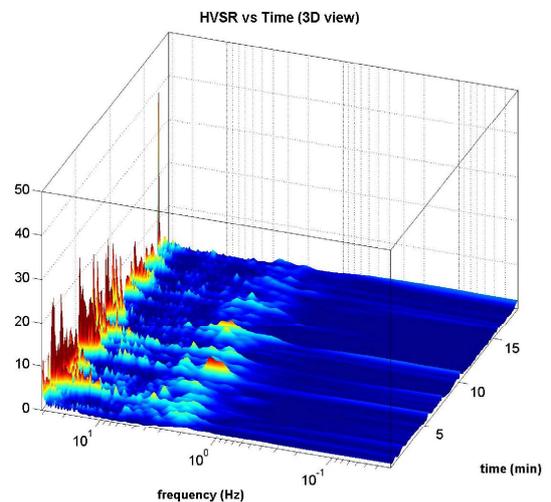
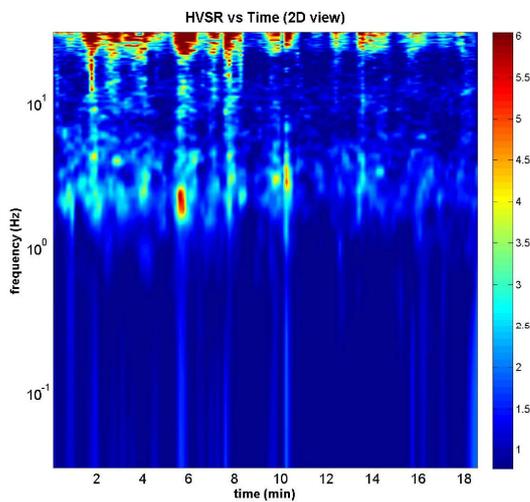
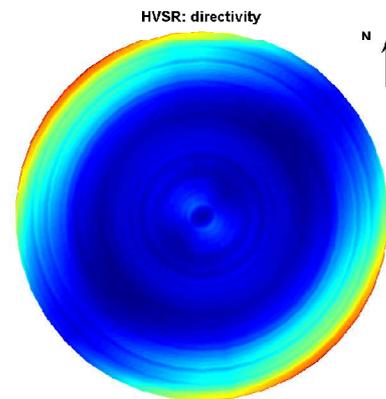
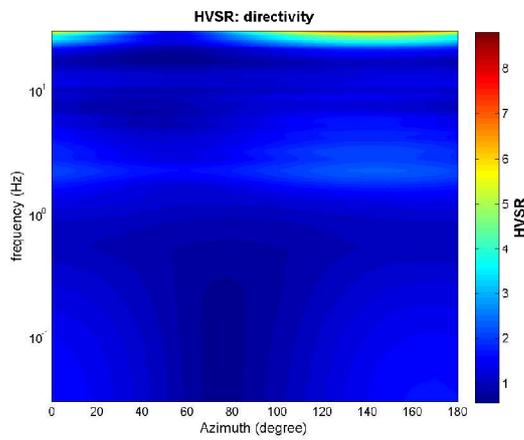
save - option#2: picking H/V curve
pick HV curve **save picked HV**

quick analysis (f=Vs/4H)
 180 average Vs (m/s) (from surface to bedrock)
 20 depth of the bedrock (m)
 1000 Vs of the bedrock
clean **compute**

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To model the HVSR (also jointly with MASW or ReMIESAC data), save the HV curve, go to the "Velocity Spectrum/s, Modeling & Picking" panels and upload the saved HV curve

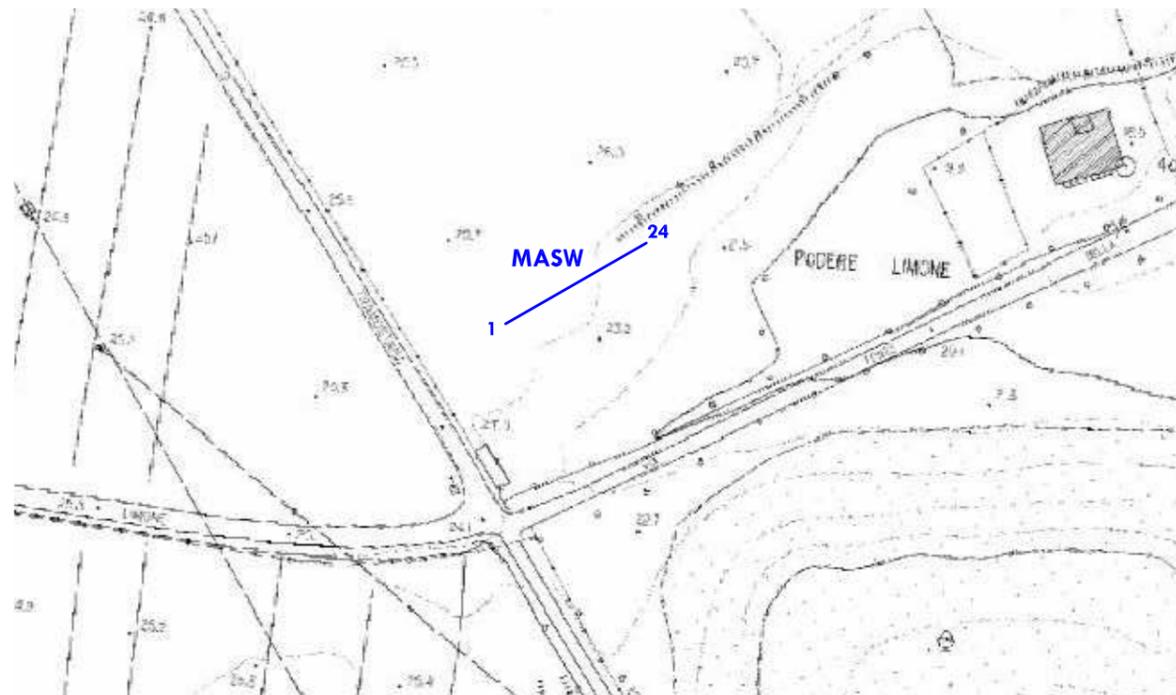


GEOLOGICA TOSCANA s.n.c.

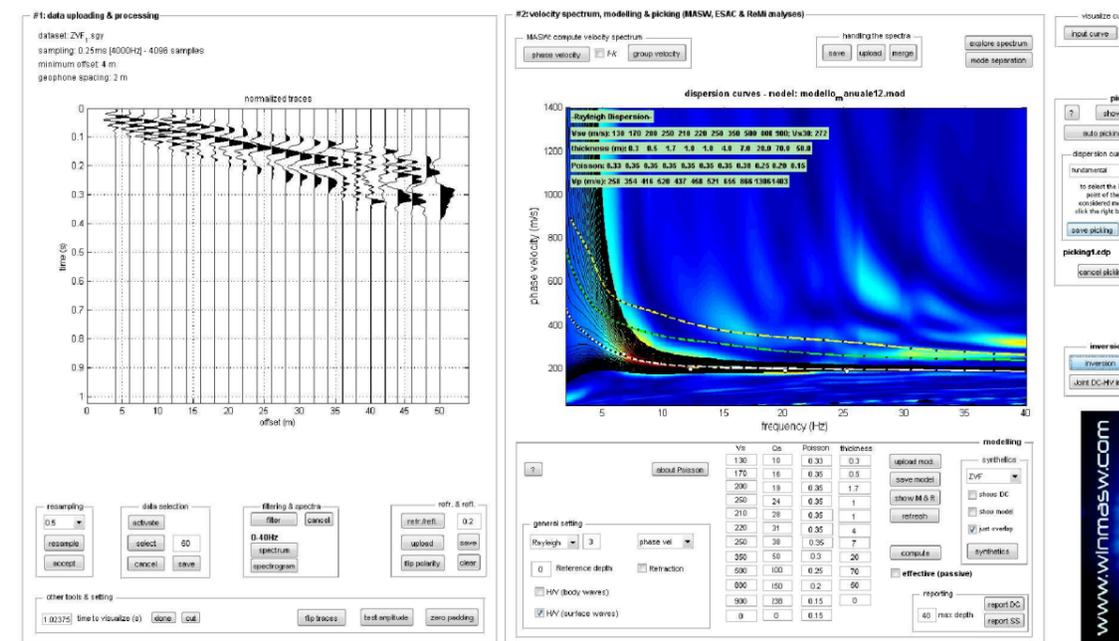
di Damiano Guarguaglini & C.

ALLEGATO 2

REPORT DELLE MISURE MASW ED ESAC



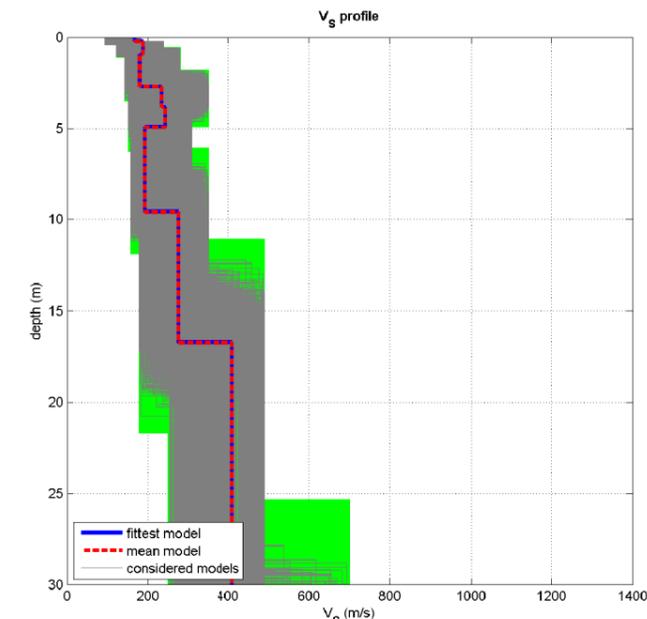
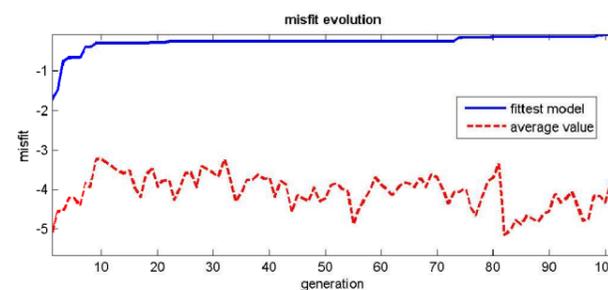
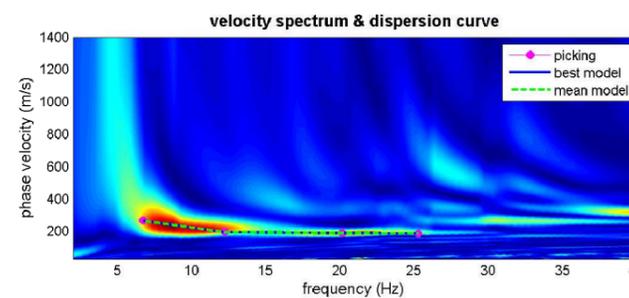
SPETTRO DI VELOCITA' MASW



1 MASW 24 Stendimento di sismica attiva MASW

INVERSIONE MASW E PROFILO DI VELOCITA'

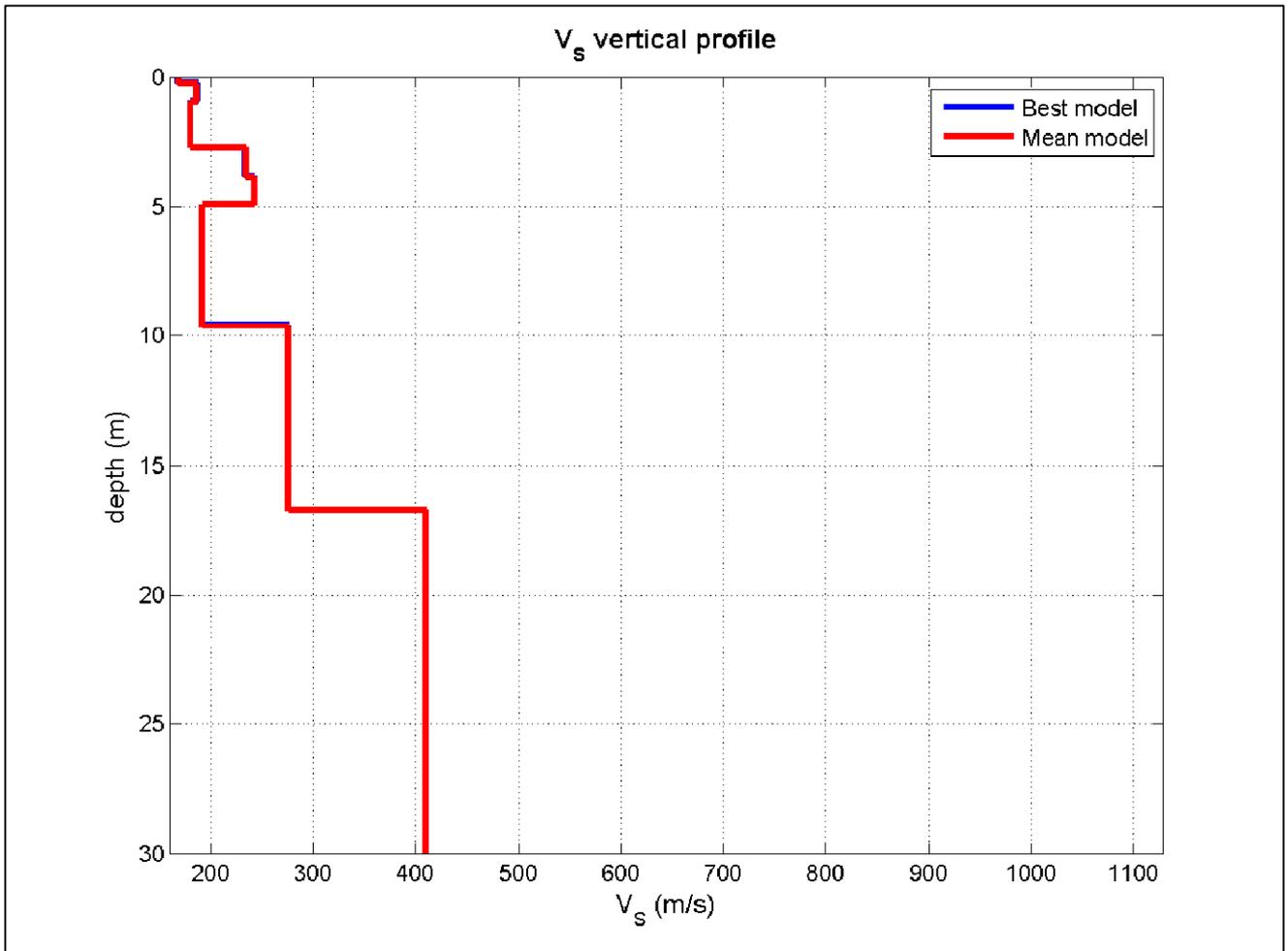
Stendimento MASW1



dataset: ZVF_sgy
 dispersion curve: picking1.cdp
 Vs30 (best model): 281 m/s
 Vs30 (mean model): 281 m/s



PROFILO DI VELOCITA' MASW1

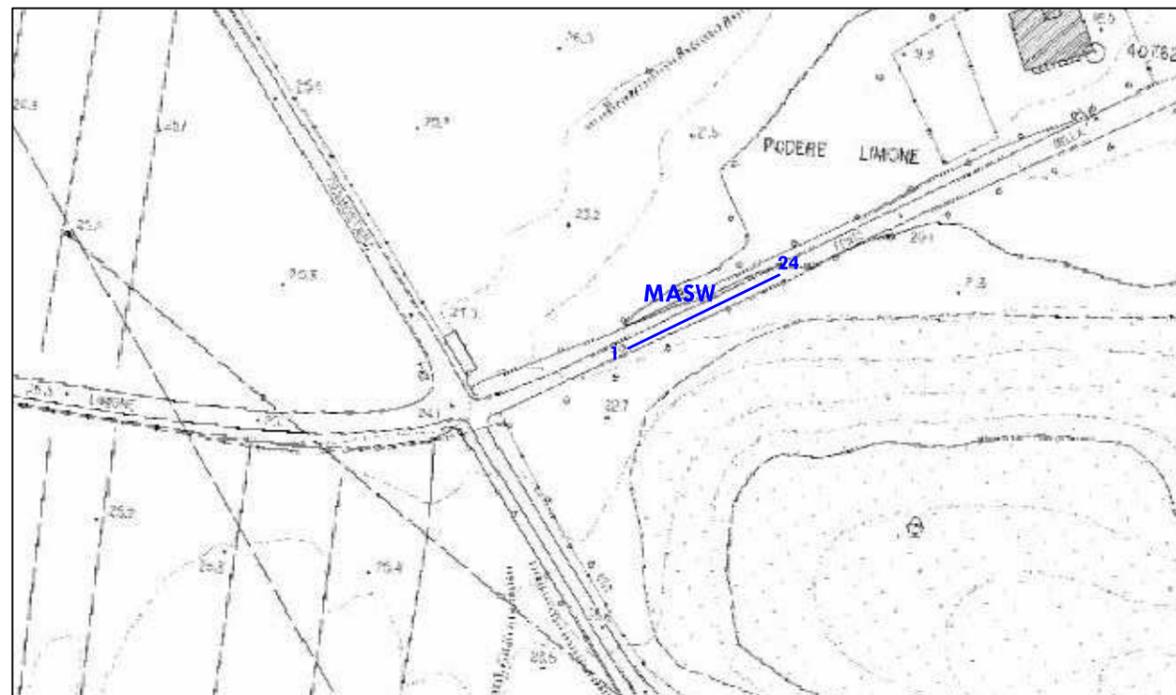


V_s (m/s): 169, 187, 180, 234, 243, 192, 276, 410, 414, 1026, 1068
 Thickness (m): 0.3, 0.7, 1.8, 1.1, 1.1, 4.7, 7.1, 19.8, 54.9, 35.9

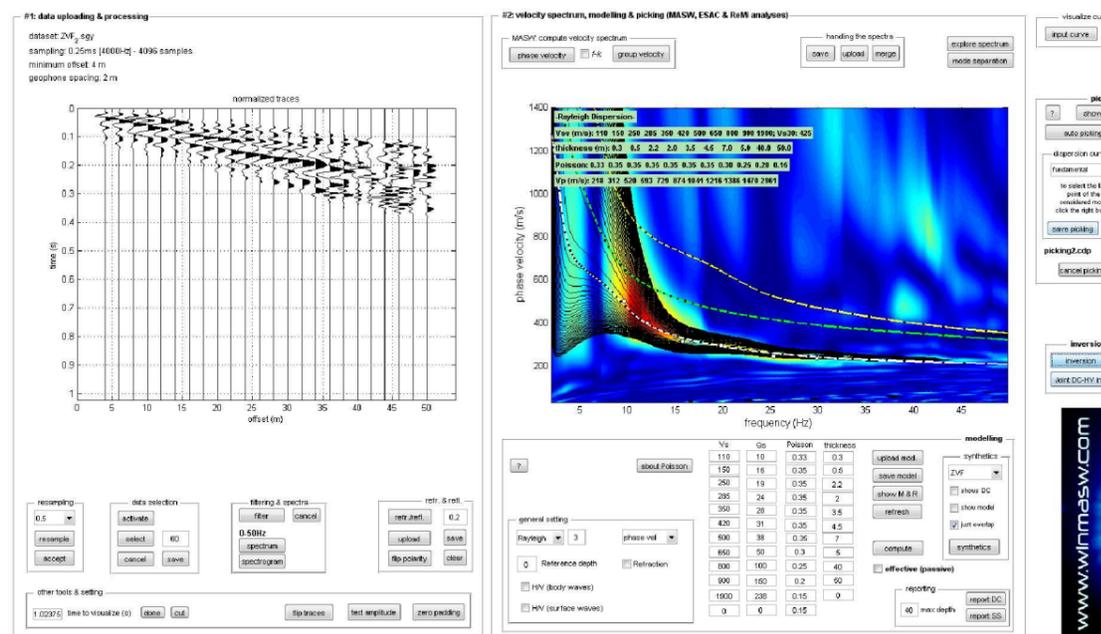
Density (gr/cm³) (approximate values): 1.81 1.82 1.79 1.93 1.94 1.85 1.91 1.98 2.00 2.20 2.19
 Seismic/Dynamic Shear modulus (MPa) (approximate values): 52 64 58 106 115 68 146 334 342 2314 2500

Approximate values for V_p and Poisson
 V_p (m/s): 362 378 331 596 627 425 560 751 793 1807 1762
 Poisson: 0.36 0.34 0.29 0.41 0.41 0.37 0.34 0.29 0.31 0.26 0.21

V_{s30} (m/s): 281



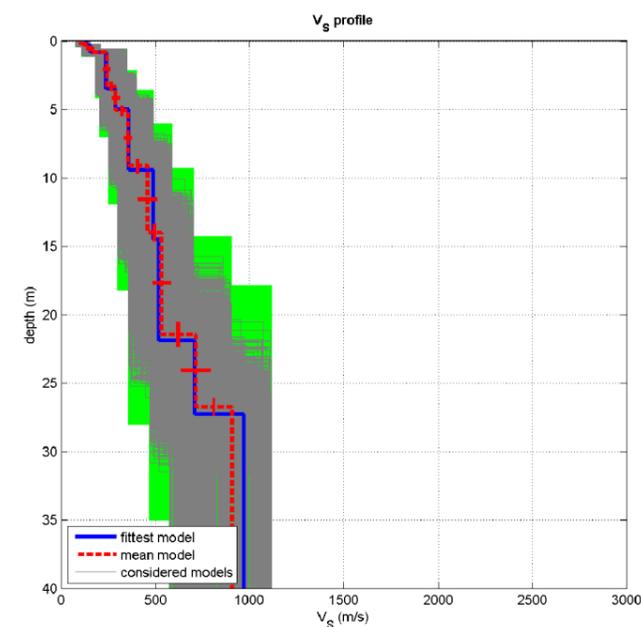
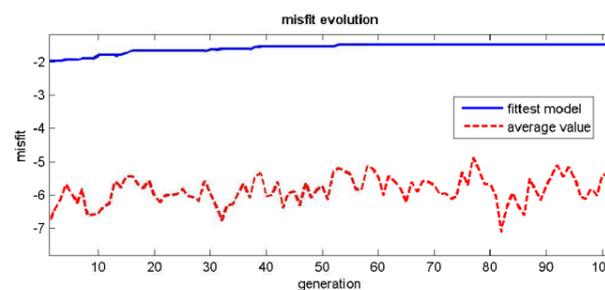
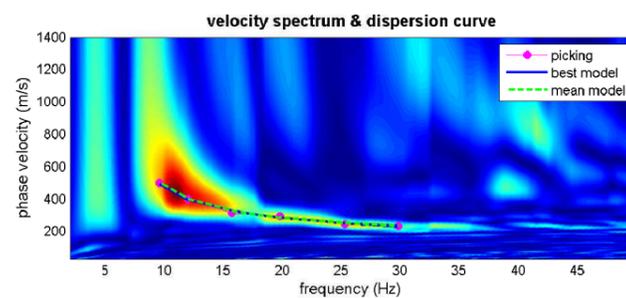
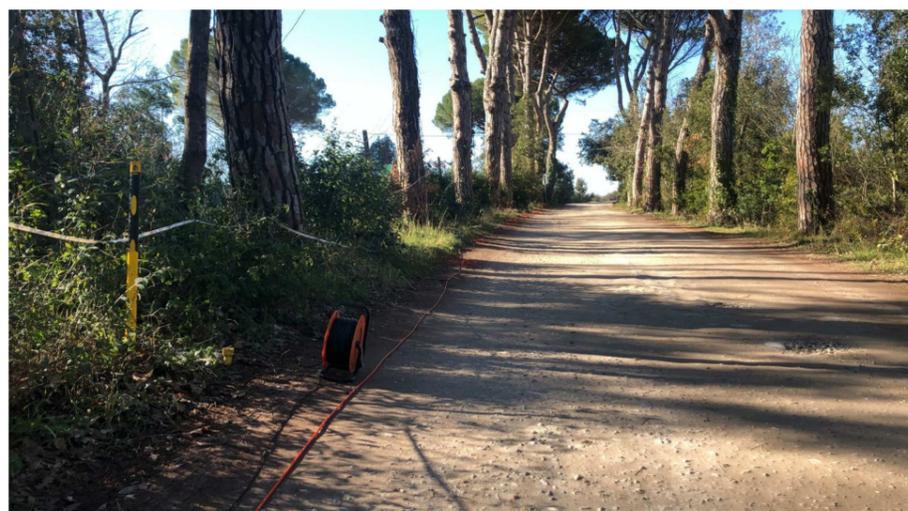
SPETTRO DI VELOCITA' MASW



1 MASW 24 Stendimento di sismica attiva MASW

INVERSIONE MASW E PROFILO DI VELOCITA'

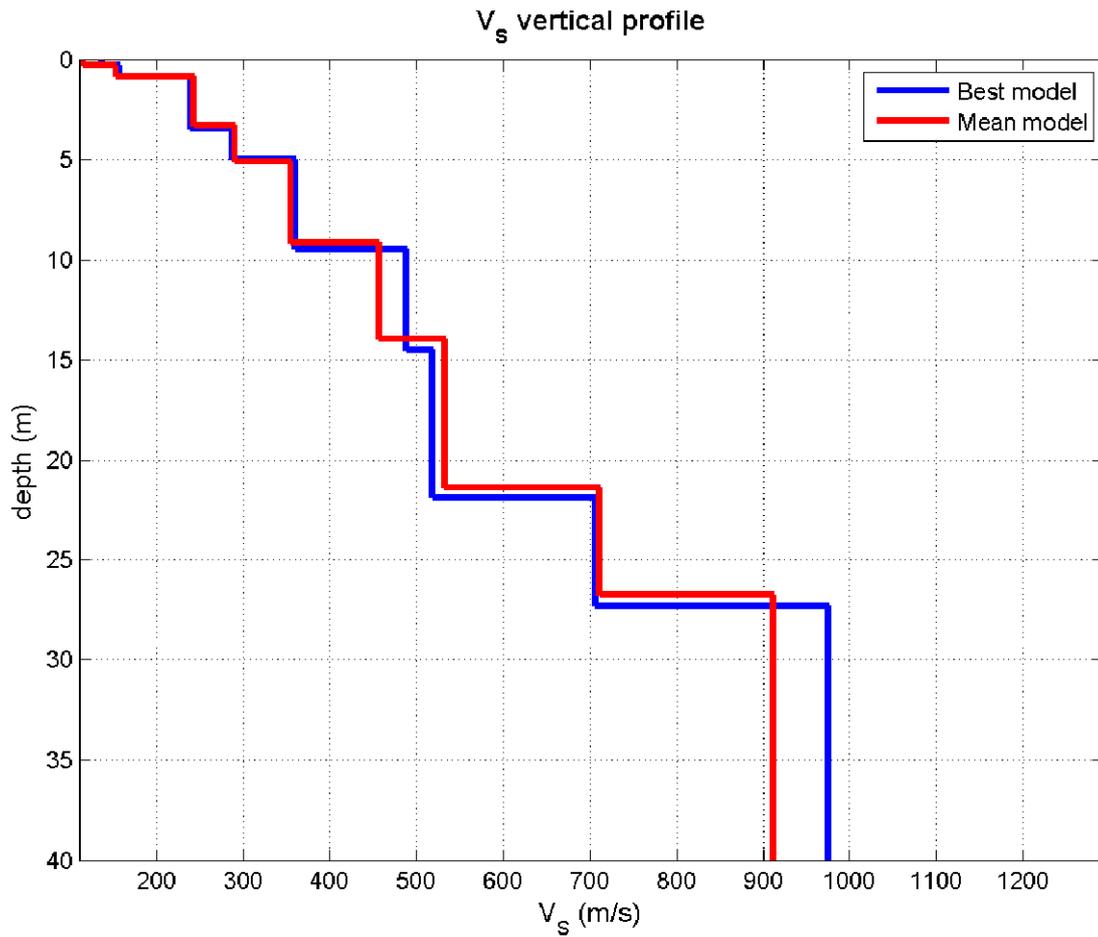
Stendimento MASW2



dataset: ZVF_sgy
 dispersion curve: picking2.cdp
 Vs30 (best model): 433 m/s
 Vs30 (mean model): 433 m/s



PROFILO DI VELOCITA' MASW2

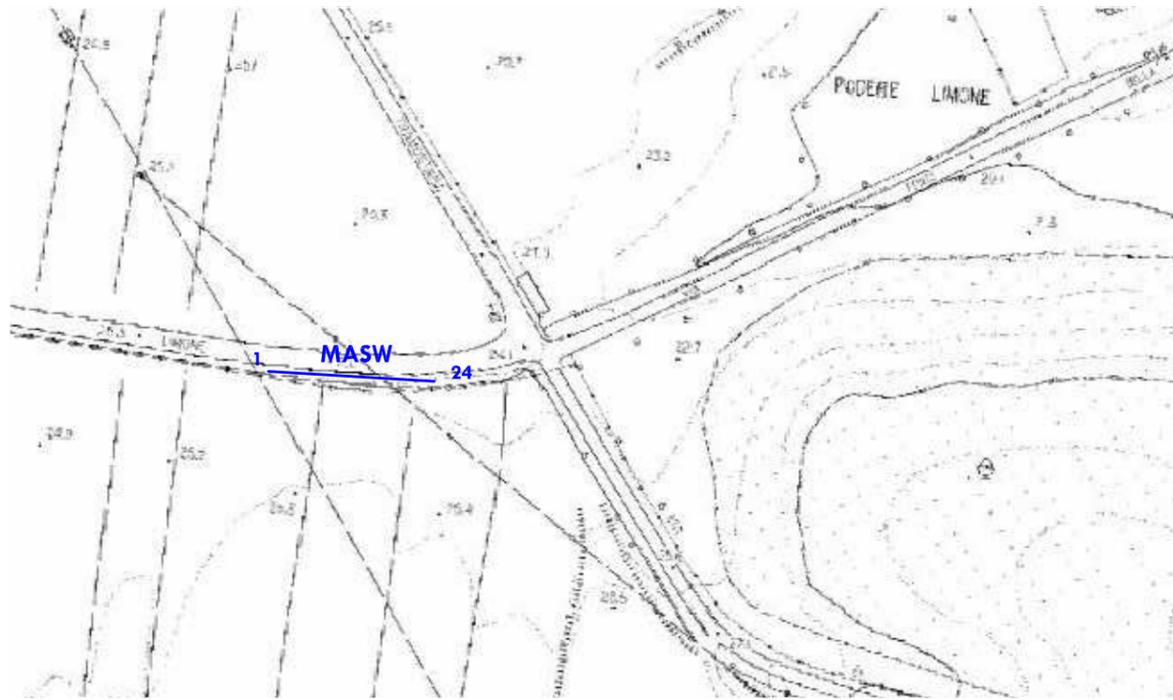


Vs (m/s):116, 154, 243, 290, 355, 457, 533, 712, 912, 1000, 2116
 Thickness (m):0.3, 0.5, 2.5, 1.8, 4.0, 4.9, 7.4, 5.3, 41.0, 45.5

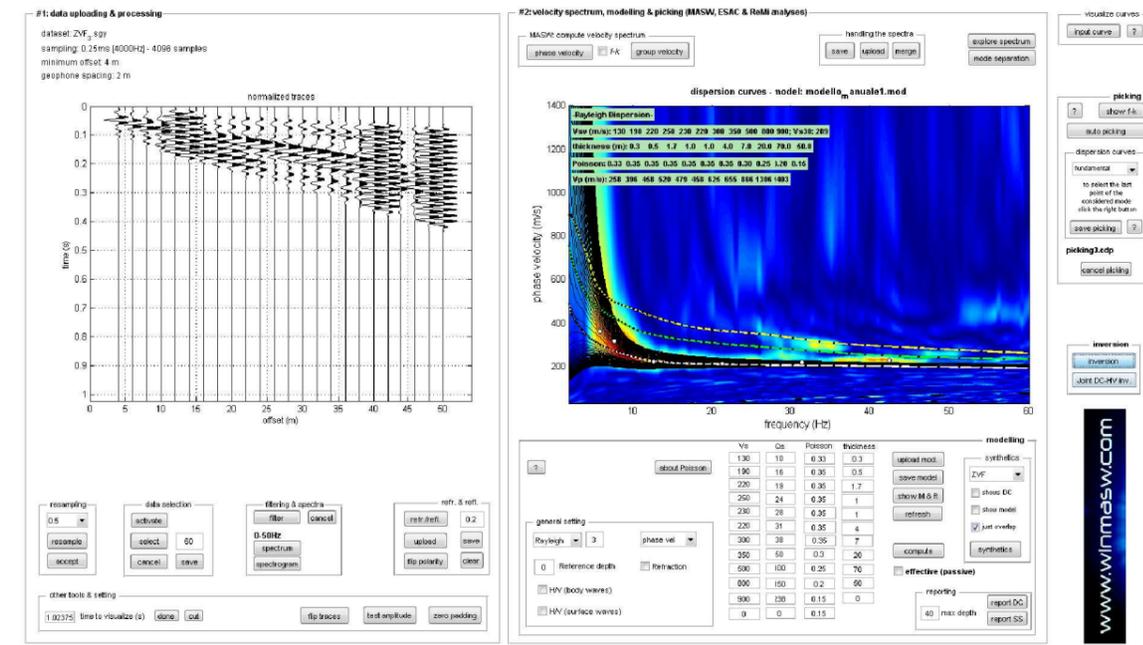
Density (gr/cm³) (approximate values):1.701.791.881.921.952.052.102.132.172.182.35
 Seismic/Dynamic Shear modulus (MPa) (approximate values):234211116224642759510781805217810512

Approximate values for Vp and Poisson
 Vp (m/s):22833749658666196711861343160916643340
 Poisson:0.330.370.340.340.300.360.370.300.260.220.16

Vs30 (m/s): 433



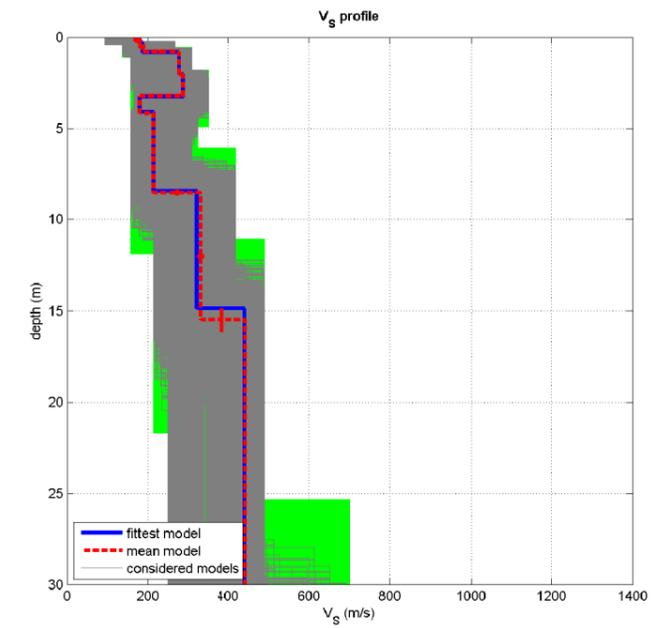
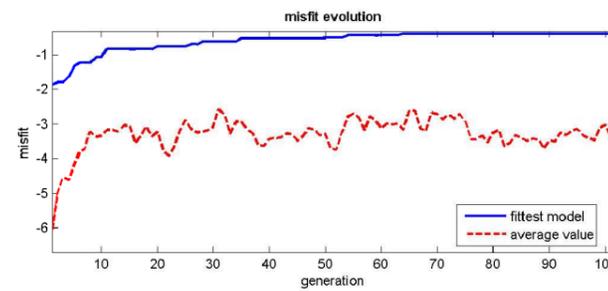
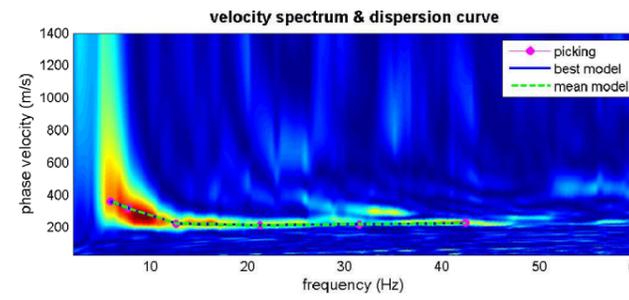
SPETTRO DI VELOCITA' MASW



1 MASW 24 Stendimento di sismica attiva MASW

INVERSIONE MASW E PROFILO DI VELOCITA'

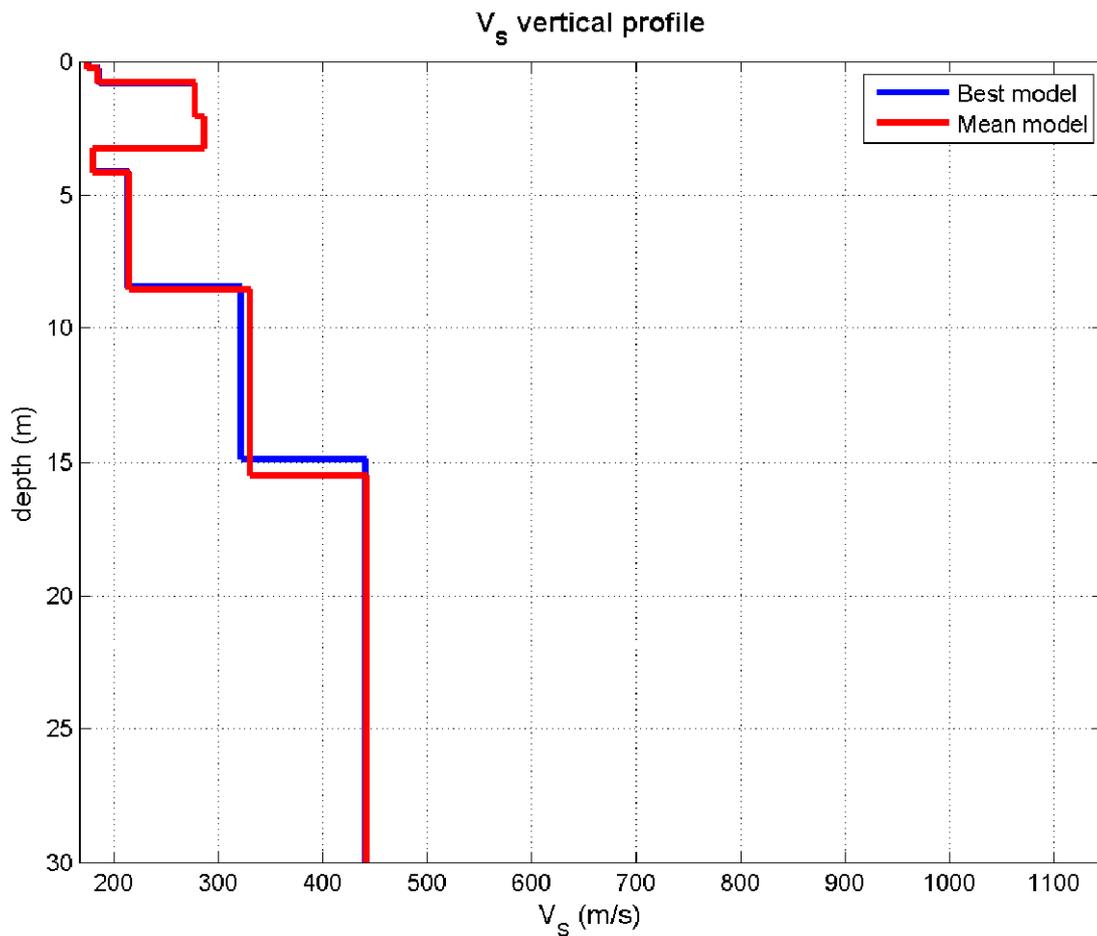
Stendimento MASW3



dataset: ZVF_sgy
 dispersion curve: picking3.cdp
 Vs30 (best model): 324 m/s
 Vs30 (mean model): 324 m/s

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PROFILO DI VELOCITA' MASW3

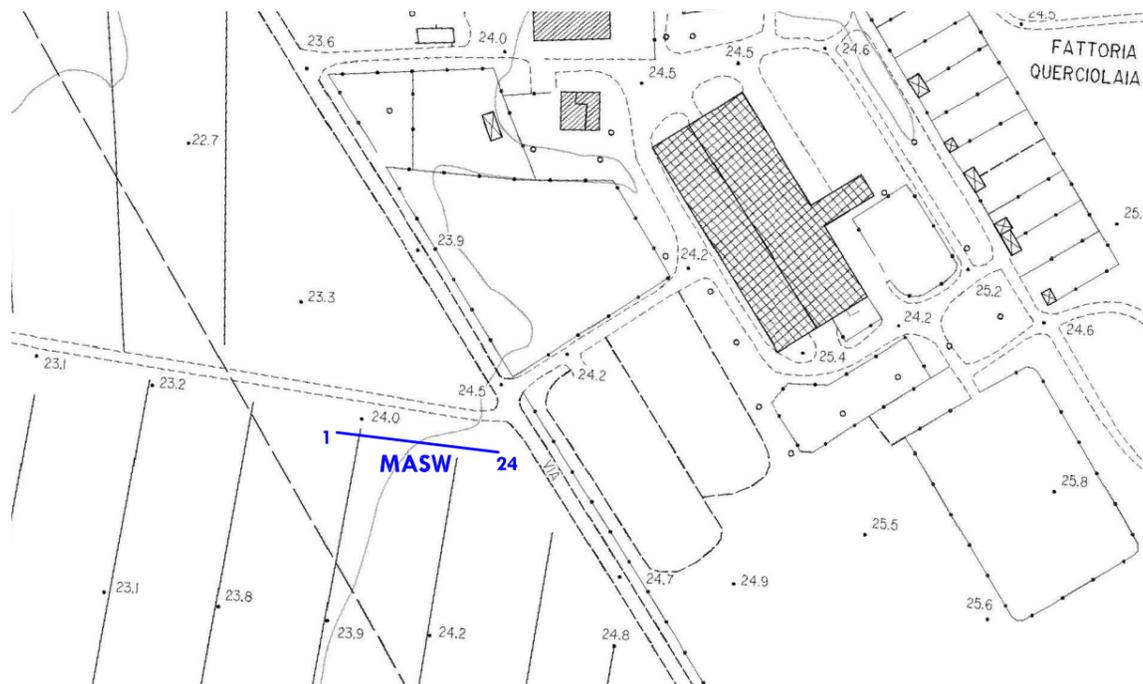


Vs (m/s):174, 185, 278, 286, 180, 214, 330, 442, 433, 1030, 1029
 Thickness (m):0.3, 0.5, 1.3, 1.2, 0.9, 4.4, 7.0, 24.0, 82.6, 54.2

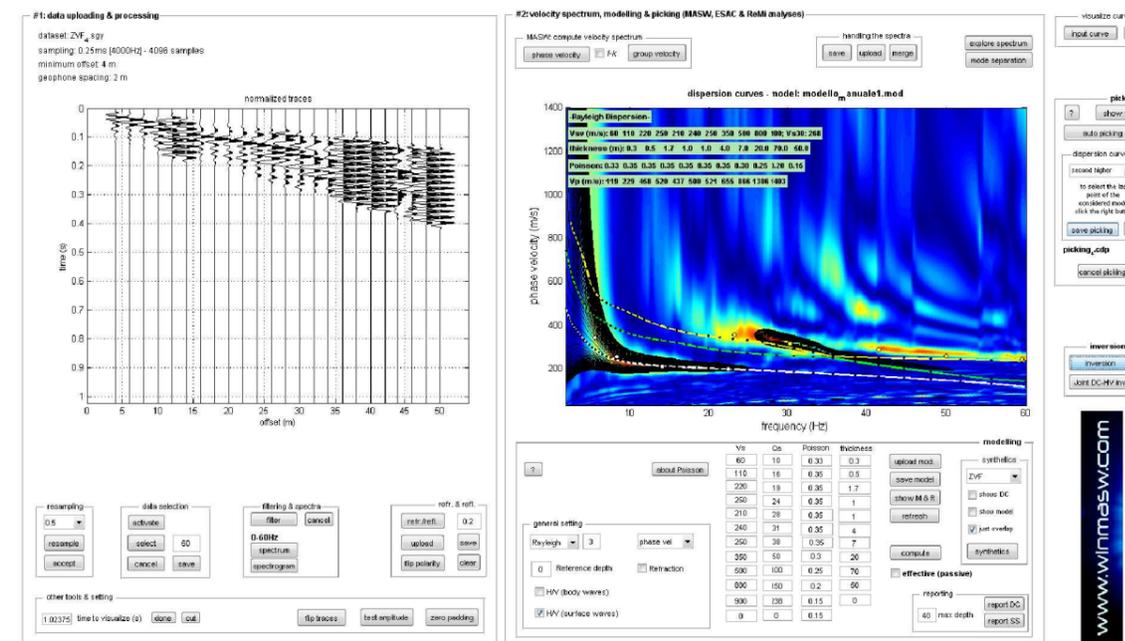
Density (gr/cm3) (approximate values):1.772.071.892.111.991.832.002.022.002.182.18
 Seismic/Dynamic Shear modulus (MPa) (approximate values):5371146172648421839537523152303

Approximate values for Vp and Poisson
 Vp (m/s):3031075503124775338981586780116951647
 Poisson:0.250.480.280.470.470.280.400.320.290.210.18

Vs30 (m/s): 324



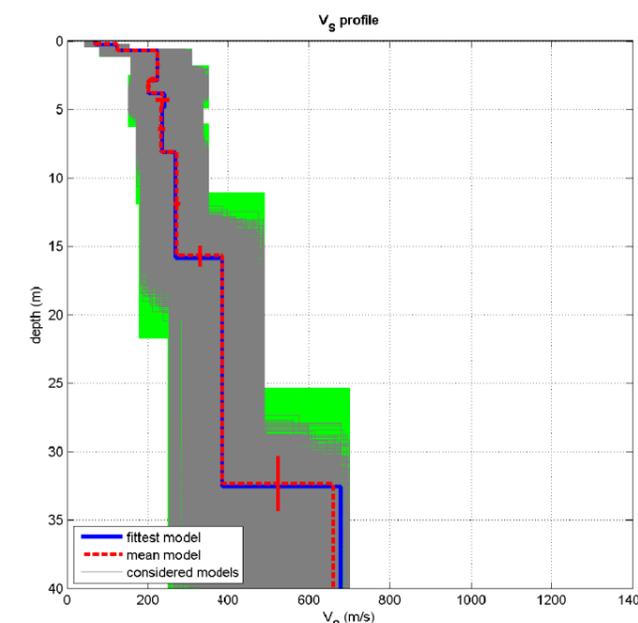
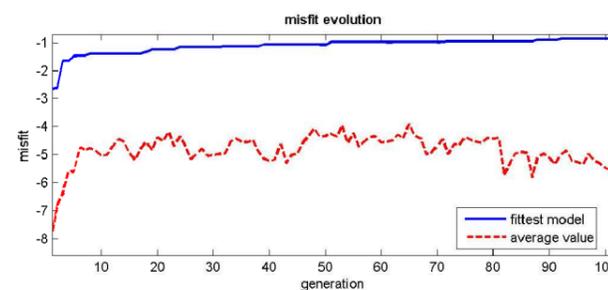
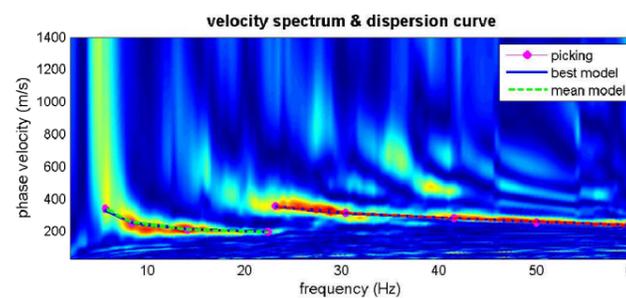
SPETTRO DI VELOCITA' MASW



1 MASW 24 Stendimento di sismica attiva MASW

INVERSIONE MASW E PROFILO DI VELOCITA'

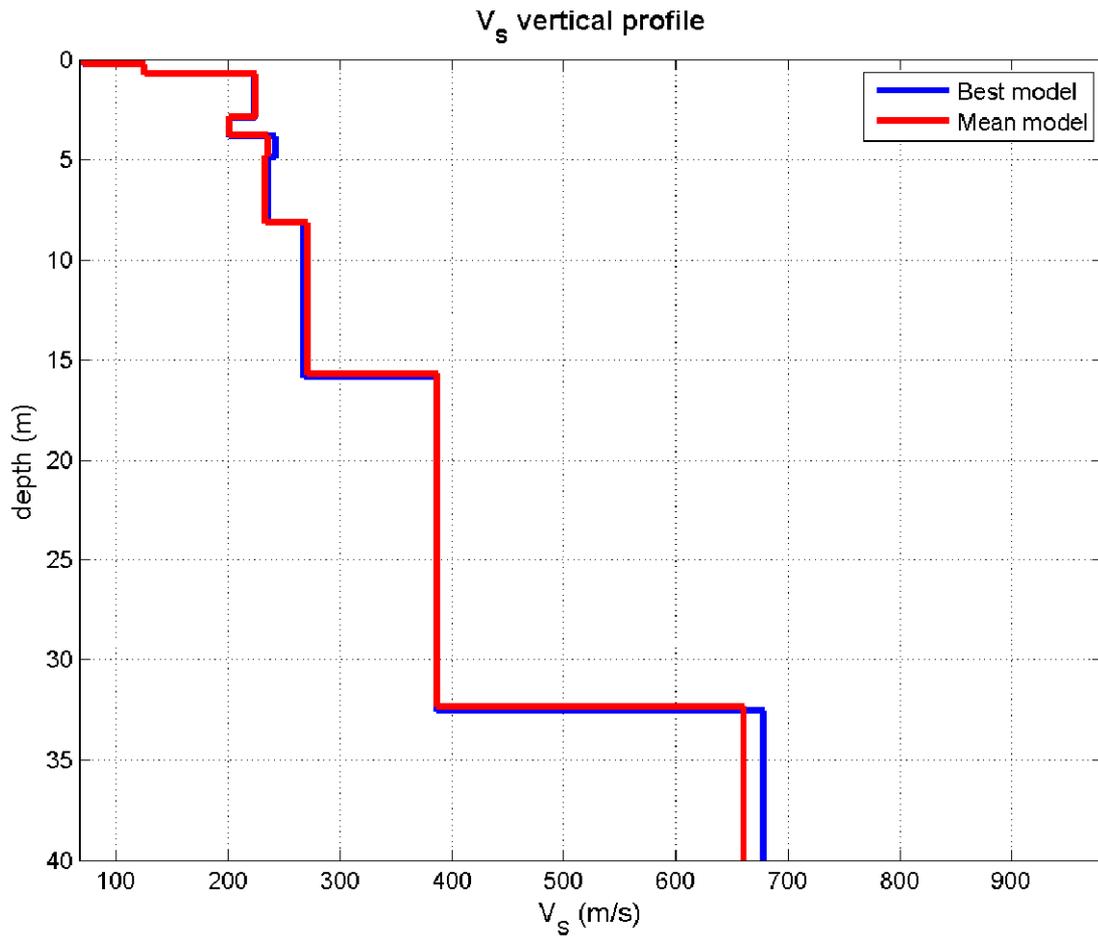
Stendimento MASW4



dataset: ZVF_sgy
 dispersion curve: picking_4_cdp
 Vs30 (best model): 285 m/s
 Vs30 (mean model): 286 m/s



PROFILO DI VELOCITA' MASW4

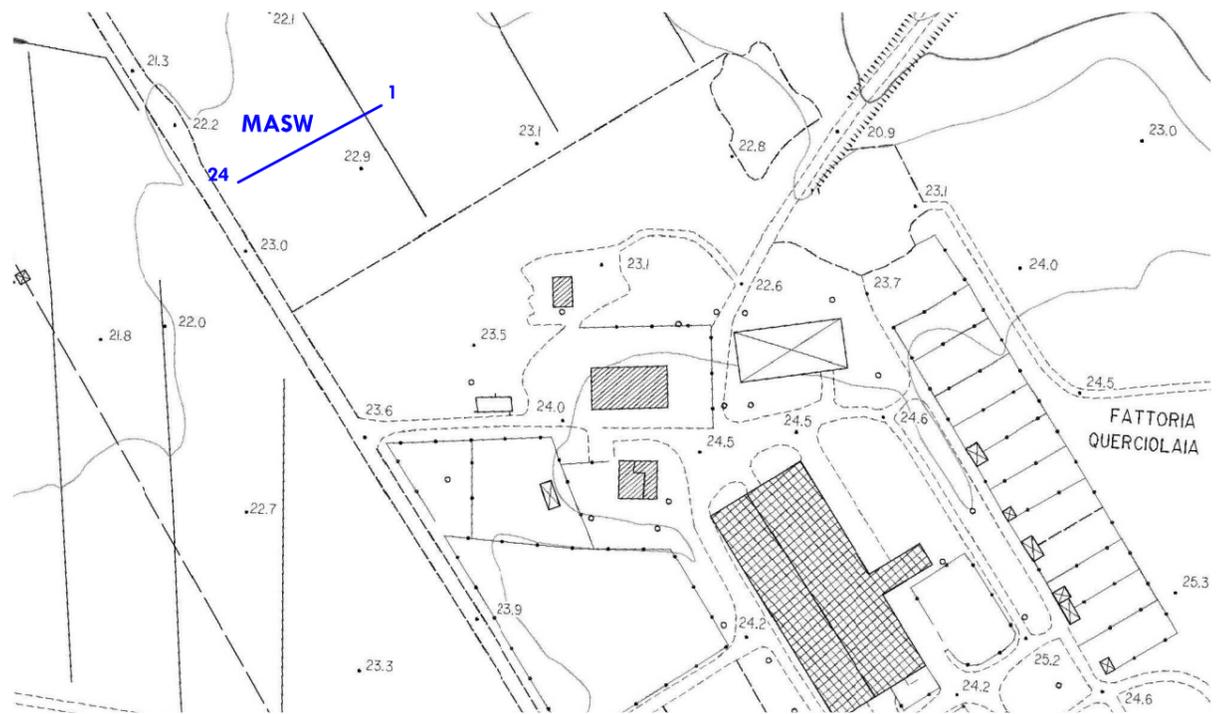


V_s (m/s): 71, 125, 224, 201, 235, 233, 271, 387, 661, 893, 1009
Thickness (m): 0.2, 0.5, 2.1, 1.0, 1.0, 3.3, 7.6, 16.6, 80.1, 50.2

Density (gr/cm³) (approximate values): 1.611.841.831.961.911.871.931.982.082.152.16
Seismic/Dynamic Shear modulus (MPa) (approximate values): 829927910610114229690817122201

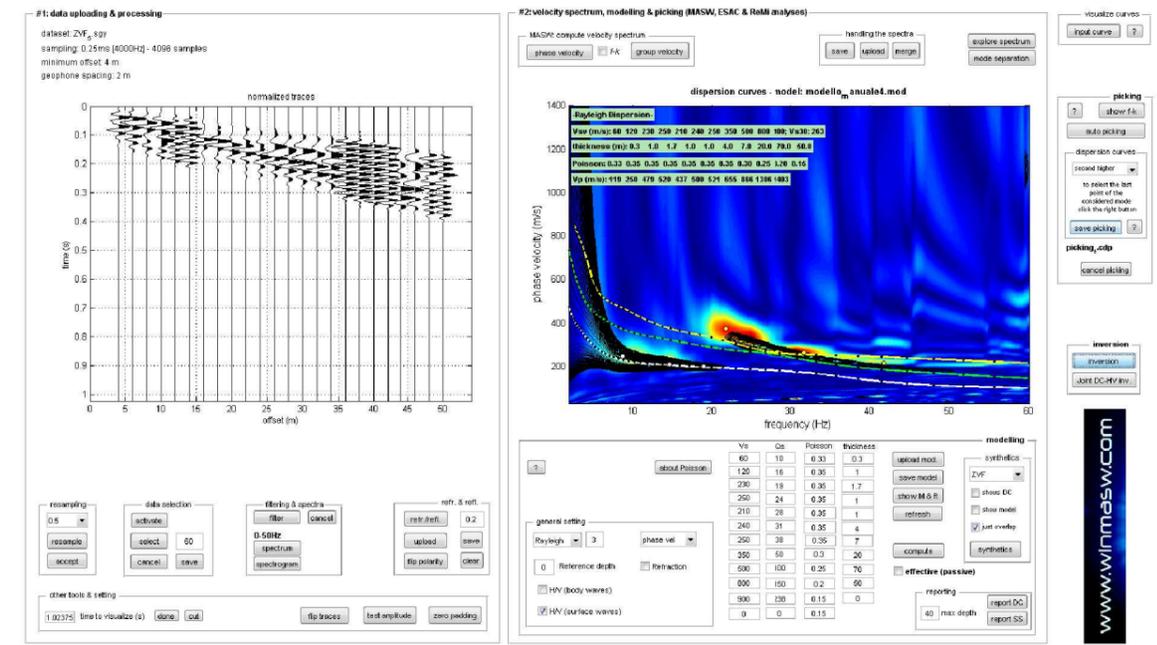
Approximate values for V_p and Poisson
 V_p (m/s): 156420393677557460594725111014631560
Poisson: 0.370.450.260.450.390.330.370.300.230.200.14

V_{s30} (m/s): 286



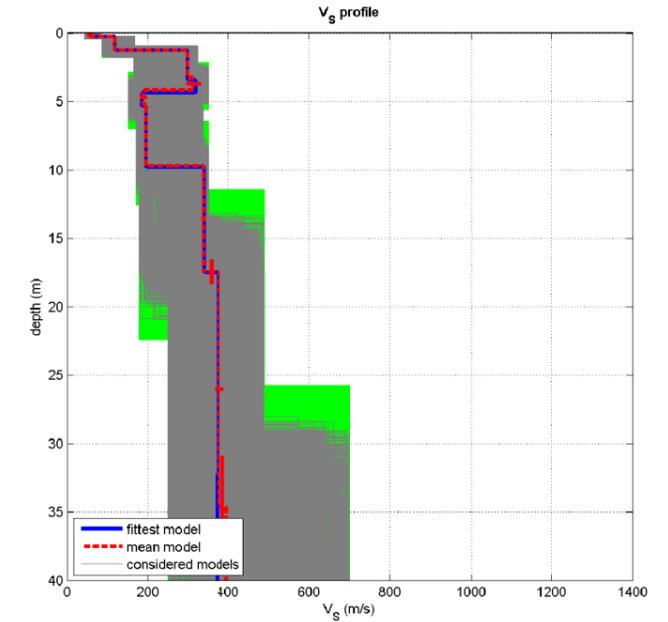
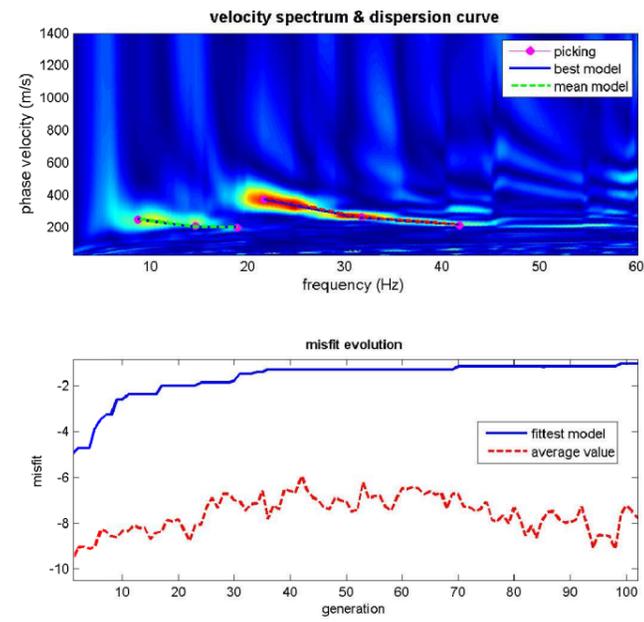
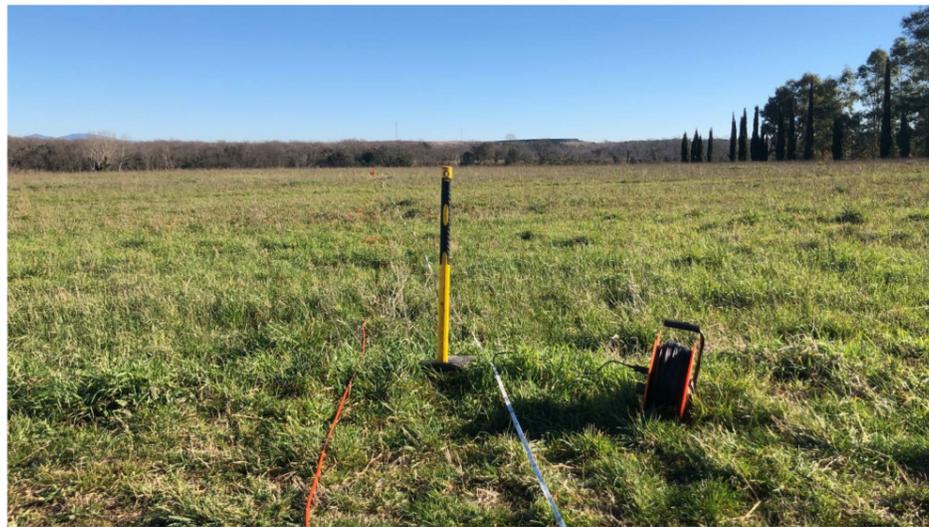
Stendimento di sismica attiva MASW

SPETTRO DI VELOCITA' MASW



INVERSIONE MASW E PROFILO DI VELOCITA'

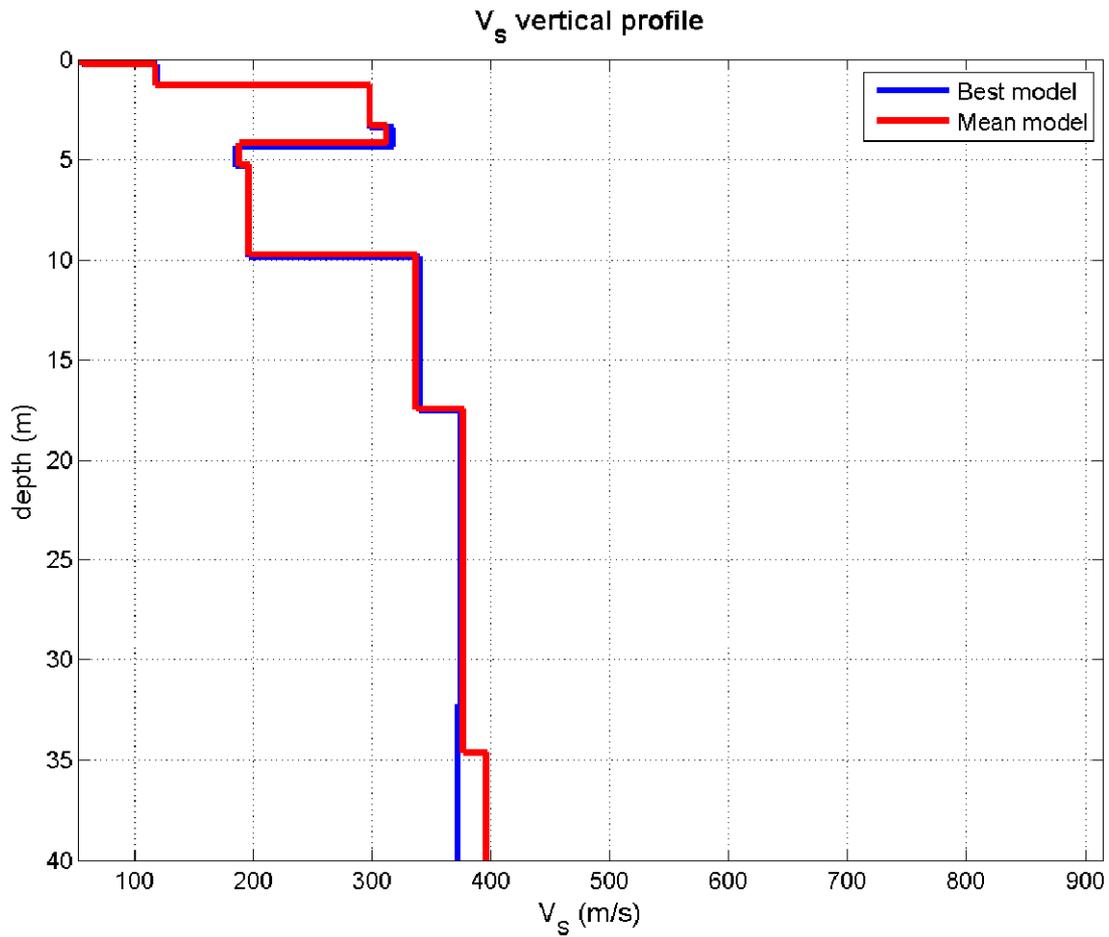
Stendimento MASW5



dataset: ZVF_sgy
 dispersion curve: picking_cdp
 Vs30 (best model): 280 m/s
 Vs30 (mean model): 280 m/s



PROFILO DI VELOCITA' MASW5

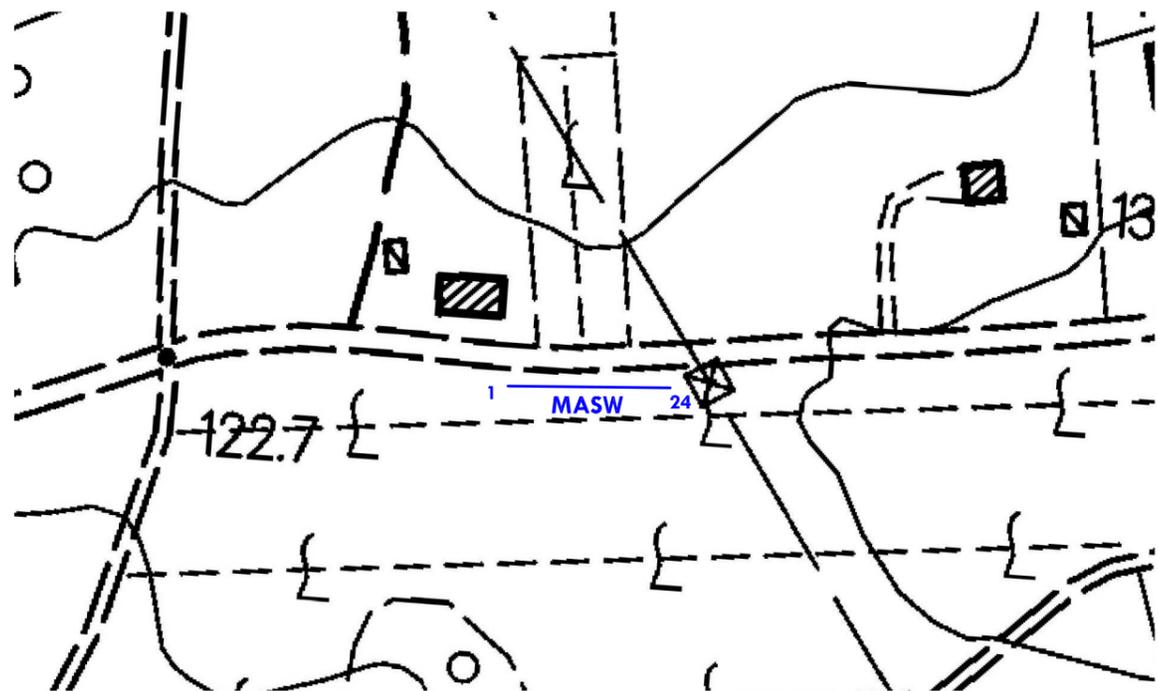


Vs (m/s):57, 118, 298, 312, 188, 196, 337, 377, 396, 887, 987
 Thickness (m):0.2, 1.0, 2.0, 0.9, 1.0, 4.5, 7.7, 17.2, 69.4, 51.6

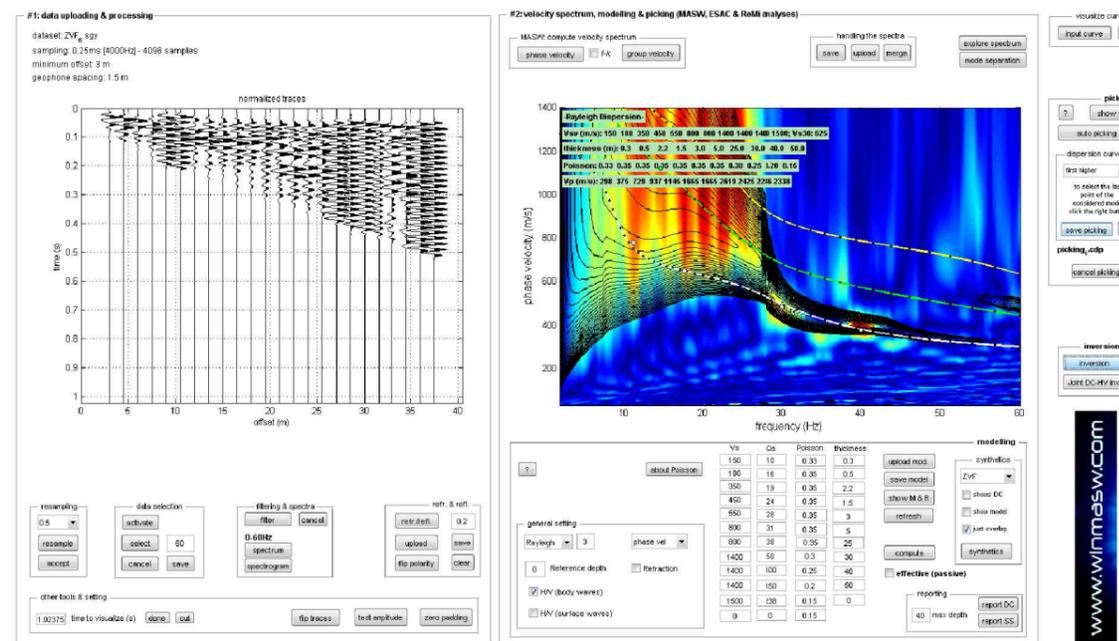
Density (gr/cm³) (approximate values):1.581.701.961.991.802.011.941.962.002.142.17
 Seismic/Dynamic Shear modulus (MPa) (approximate values):524174194647722027931416852109

Approximate values for Vp and Poisson
 Vp (m/s):13822668676735582262367980914321582
 Poisson:0.400.310.380.400.310.470.290.280.340.190.18

Vs30 (m/s): 280



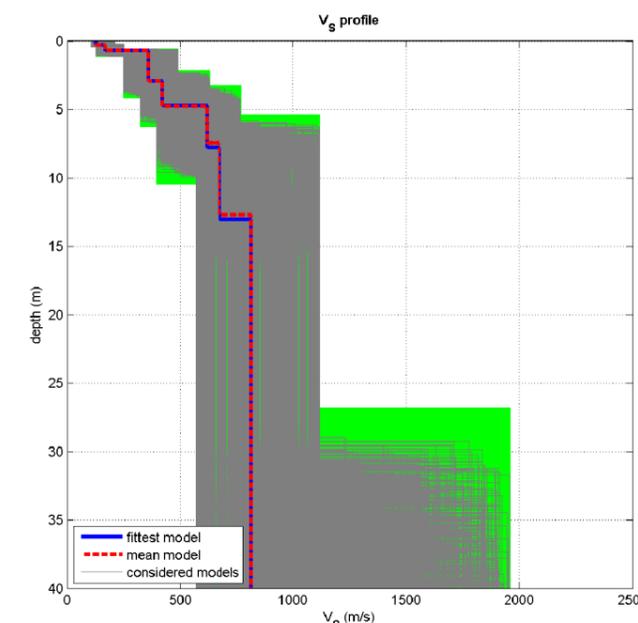
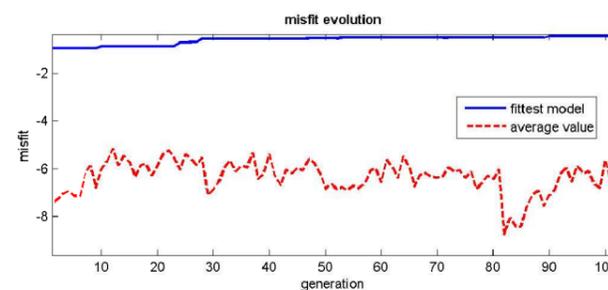
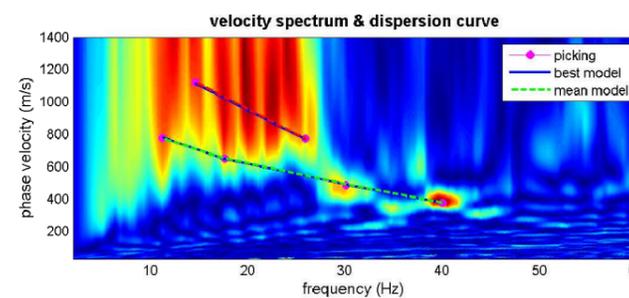
SPETTRO DI VELOCITA' MASW



1 MASW 24 Stendimento di sismica attiva MASW

INVERSIONE MASW E PROFILO DI VELOCITA'

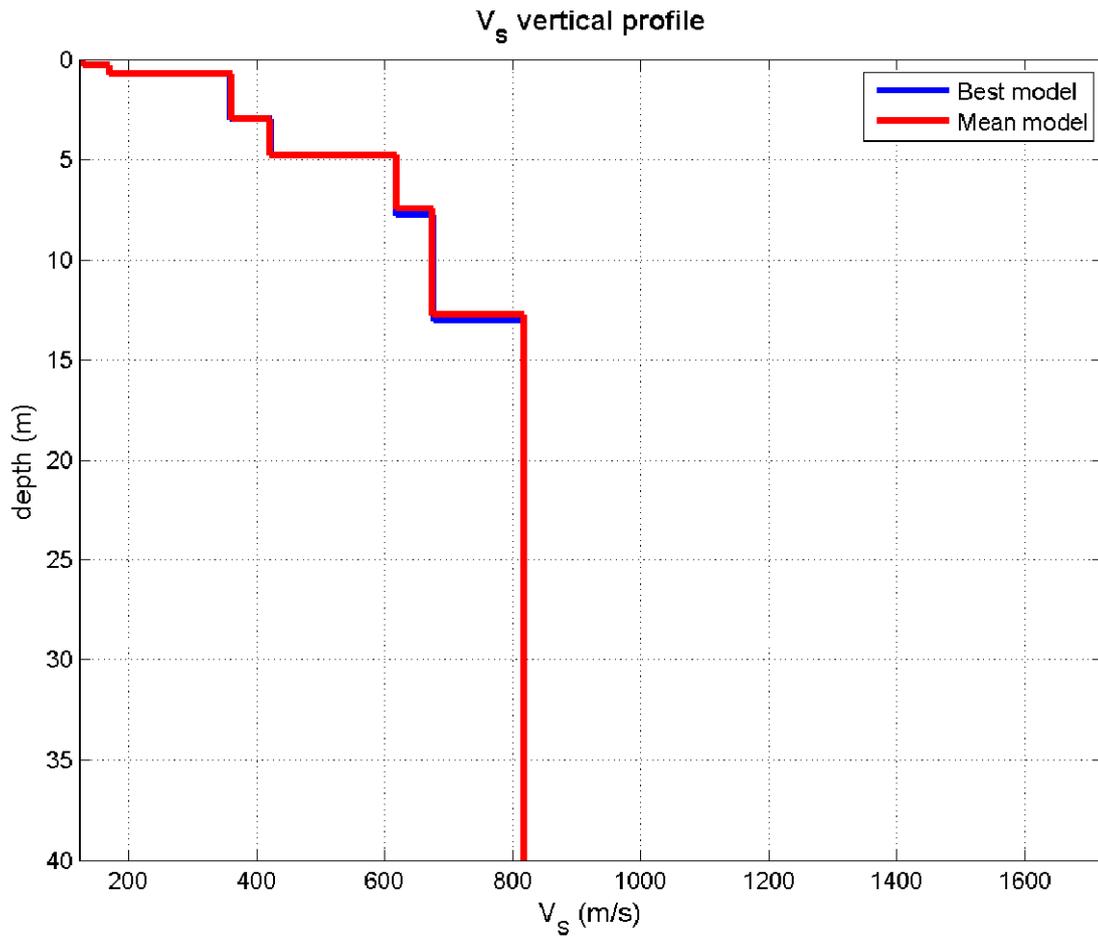
Stendimento MASW6



dataset: ZVF_sgy
 dispersion curve: picking_cdp
 Vs30 (best model): 617 m/s
 Vs30 (mean model): 618 m/s



PROFILO DI VELOCITA' MASW6

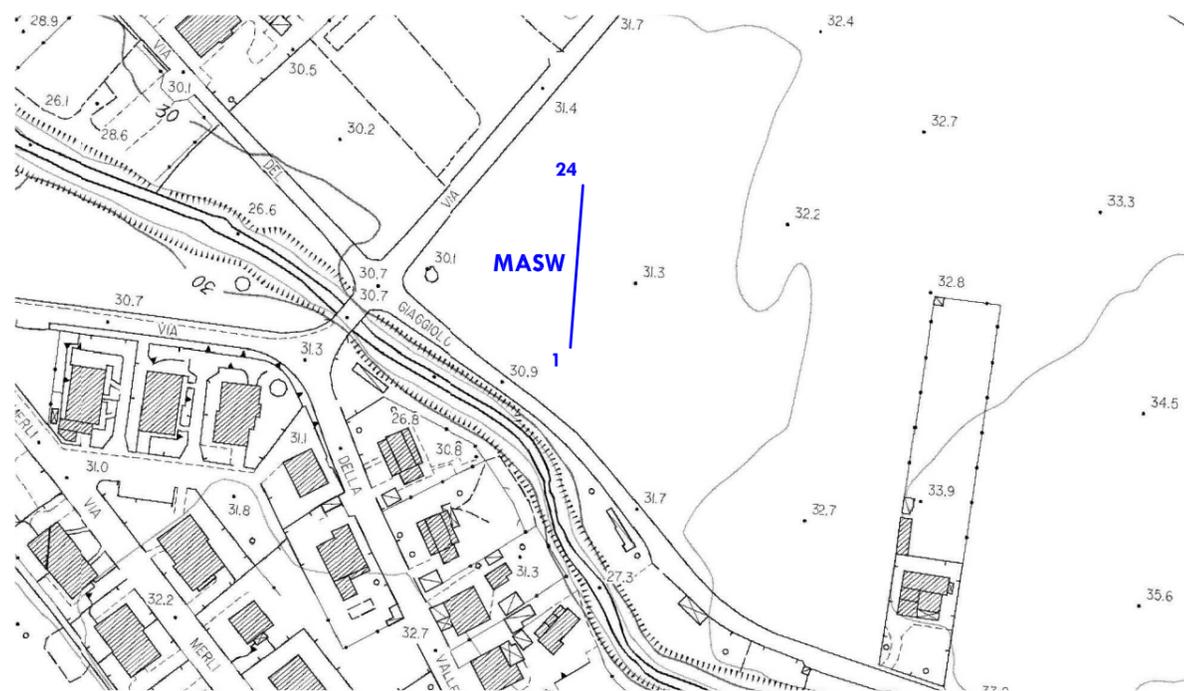


Vs (m/s):129, 171, 361, 422, 619, 676, 817, 1580, 1368, 1412, 1169
 Thickness (m):0.3, 0.4, 2.2, 1.8, 2.7, 5.3, 29.0, 35.9, 47.2, 50.4

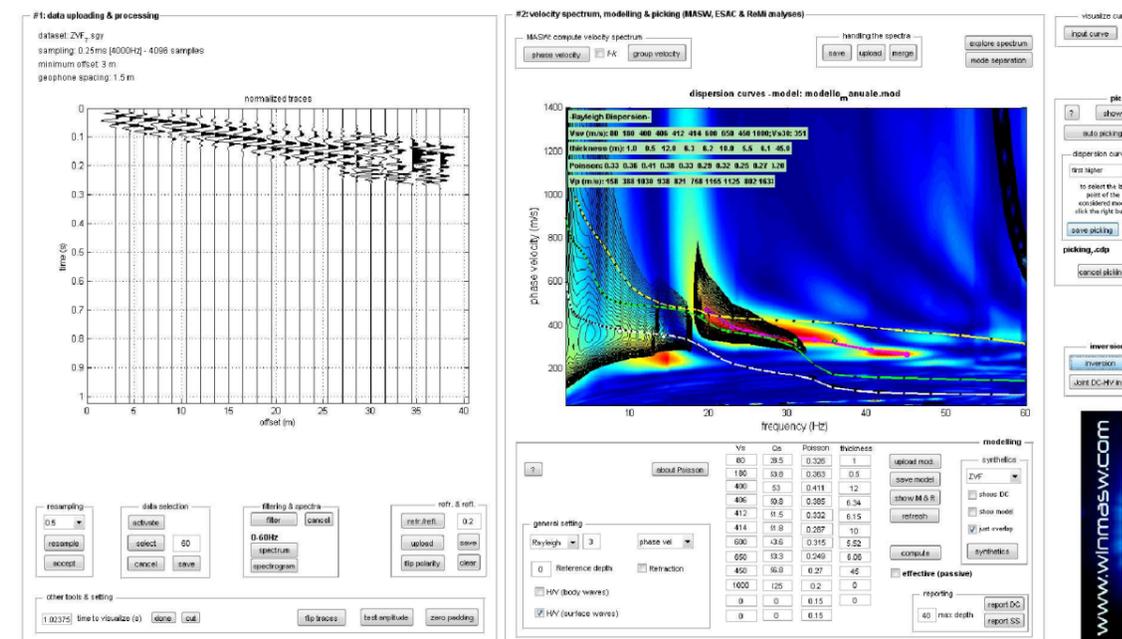
Density (gr/cm3) (approximate values):1.741.752.002.032.082.242.252.302.292.252.20
 Seismic/Dynamic Shear modulus (MPa) (approximate values):2951261361797102515005742428644773000

Approximate values for Vp and Poisson
 Vp (m/s):2742878178891117217222162747264221971788
 Poisson:0.360.220.380.350.280.450.420.250.320.150.13

Vs30 (m/s): 618



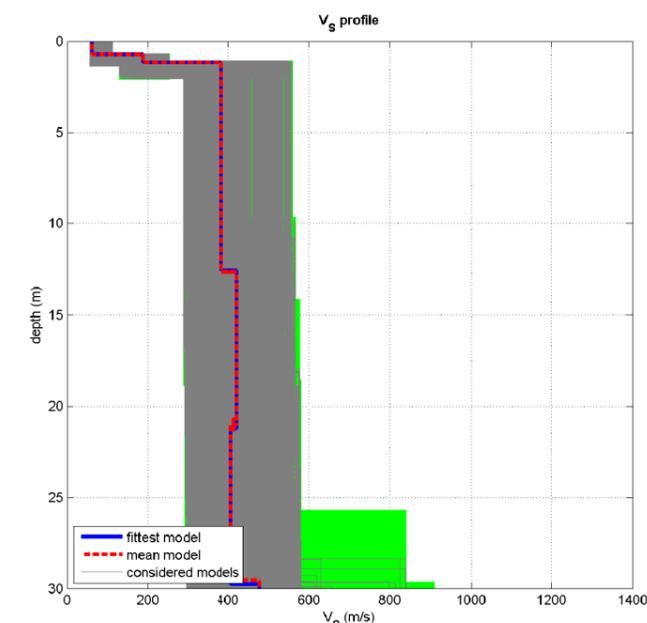
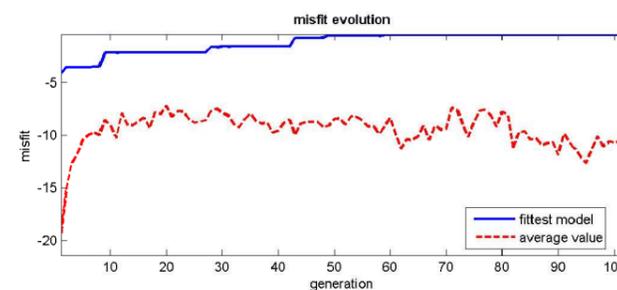
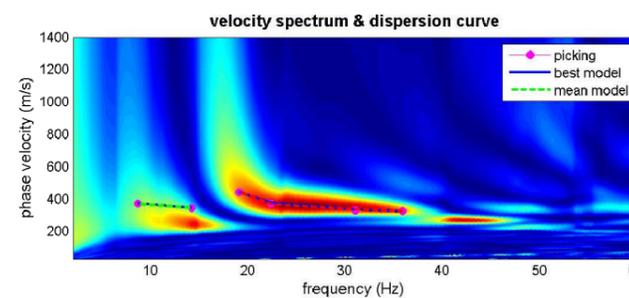
SPETTRO DI VELOCITA' MASW



1 MASW 24 Stendimento di sismica attiva MASW

INVERSIONE MASW E PROFILO DI VELOCITA'

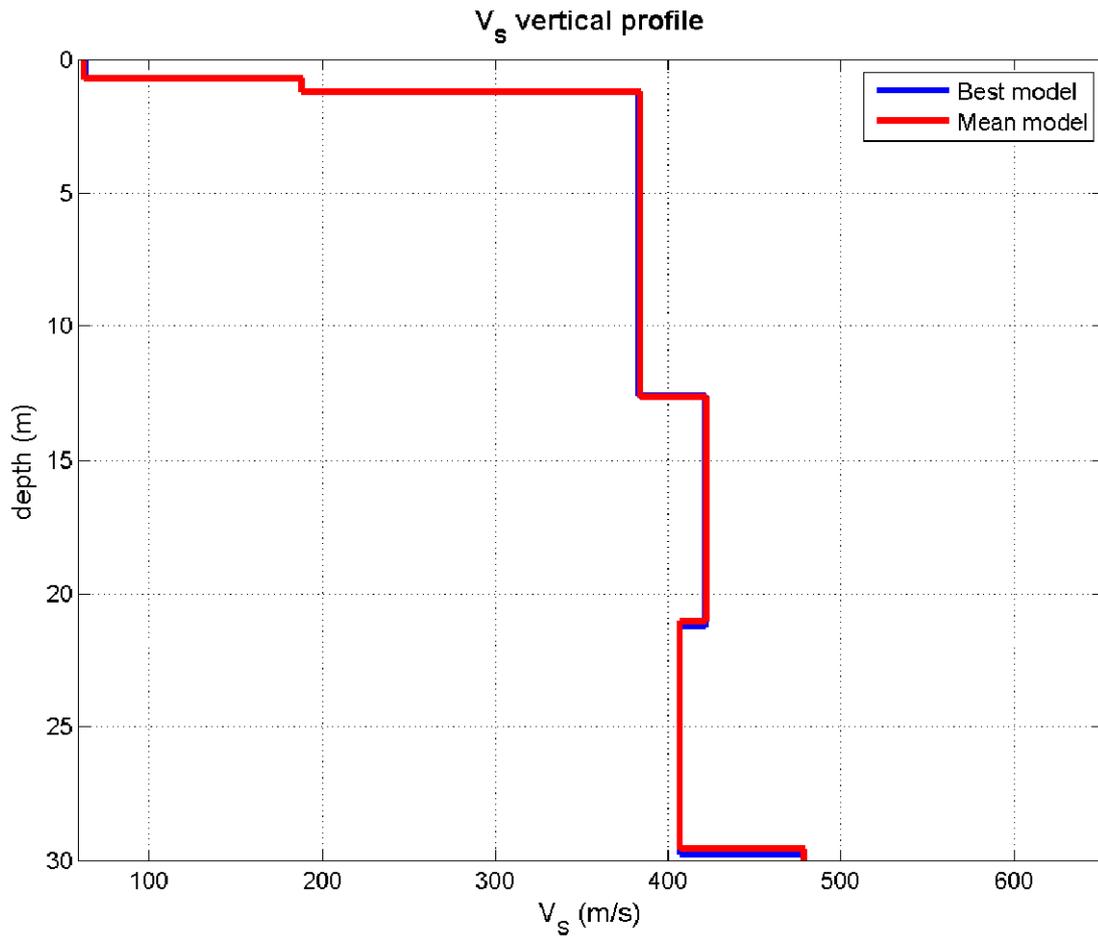
Stendimento MASW7



dataset: ZVF_sgy
 dispersion curve: picking_cdp
 Vs30 (best model): 350 m/s
 Vs30 (mean model): 349 m/s



PROFILO DI VELOCITA' MASW7

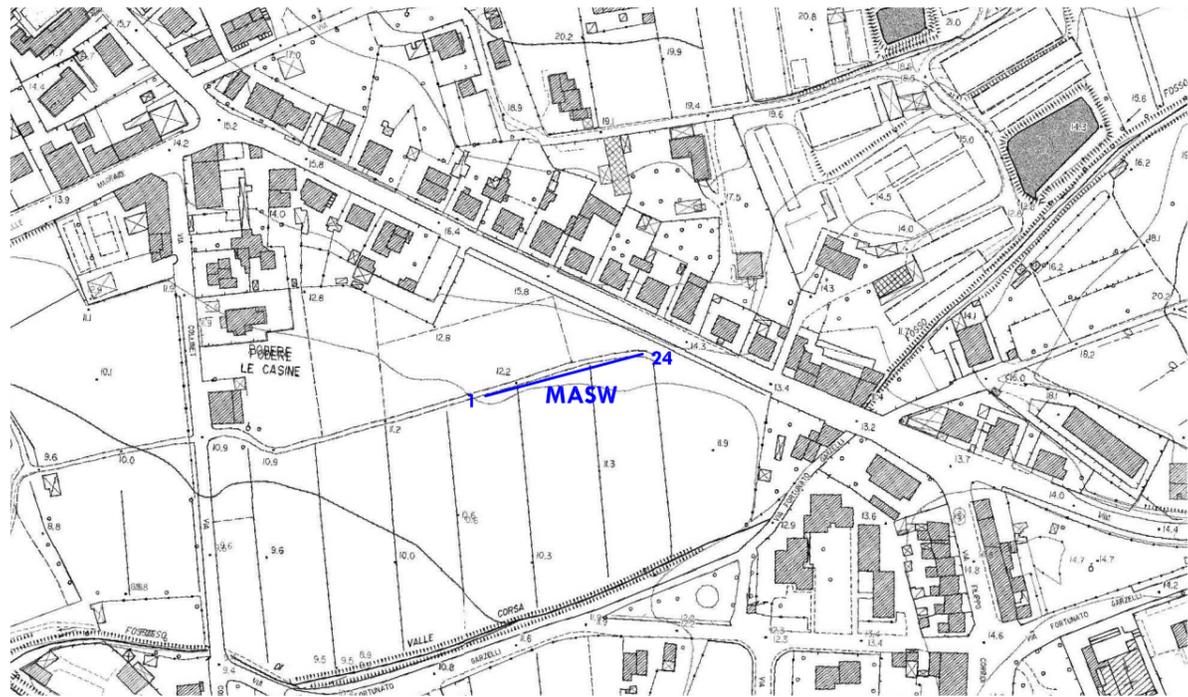


Vs (m/s):62, 188, 384, 422, 407, 479, 533, 579, 519, 1245
 Thickness (m):0.7, 0.5, 11.5, 8.4, 8.5, 13.5, 6.9, 6.2, 58.9

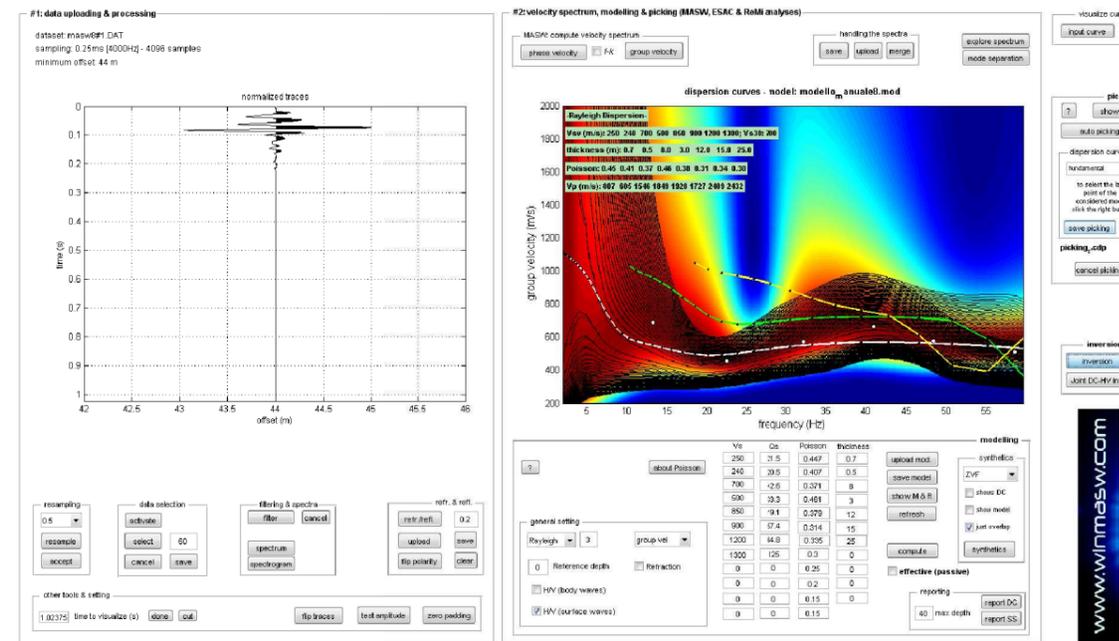
Density (gr/cm3) (approximate values):1.662.041.972.172.002.032.092.062.062.24
 Seismic/Dynamic Shear modulus (MPa) (approximate values):6722913863324655936915543471

Approximate values for Vp and Poisson
 Vp (m/s):19595371216138129001147103310162145
 Poisson:0.440.480.290.460.330.300.360.270.320.25

Vs30 (m/s): 349



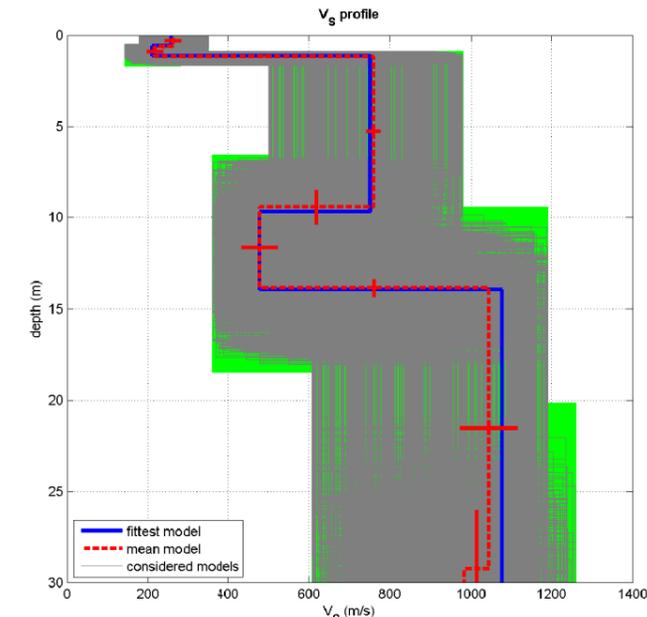
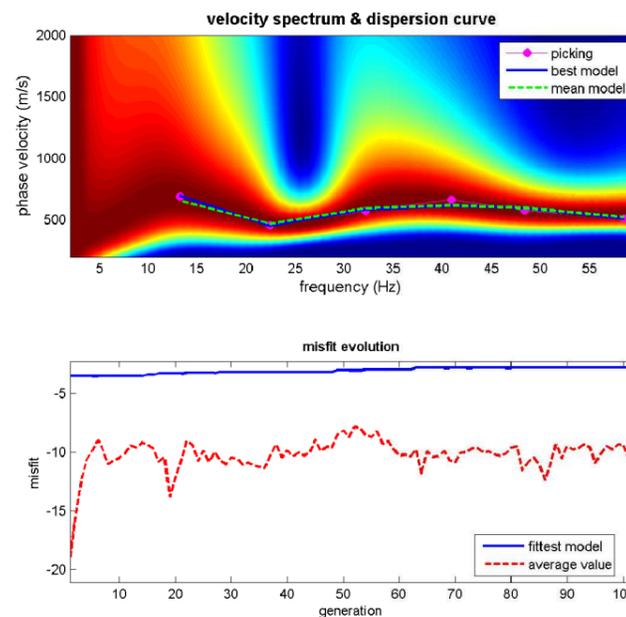
SPETTRO DI VELOCITA' MASW



1 MASW 24 Stendimento di sismica attiva MASW

INVERSIONE MASW E PROFILO DI VELOCITA'

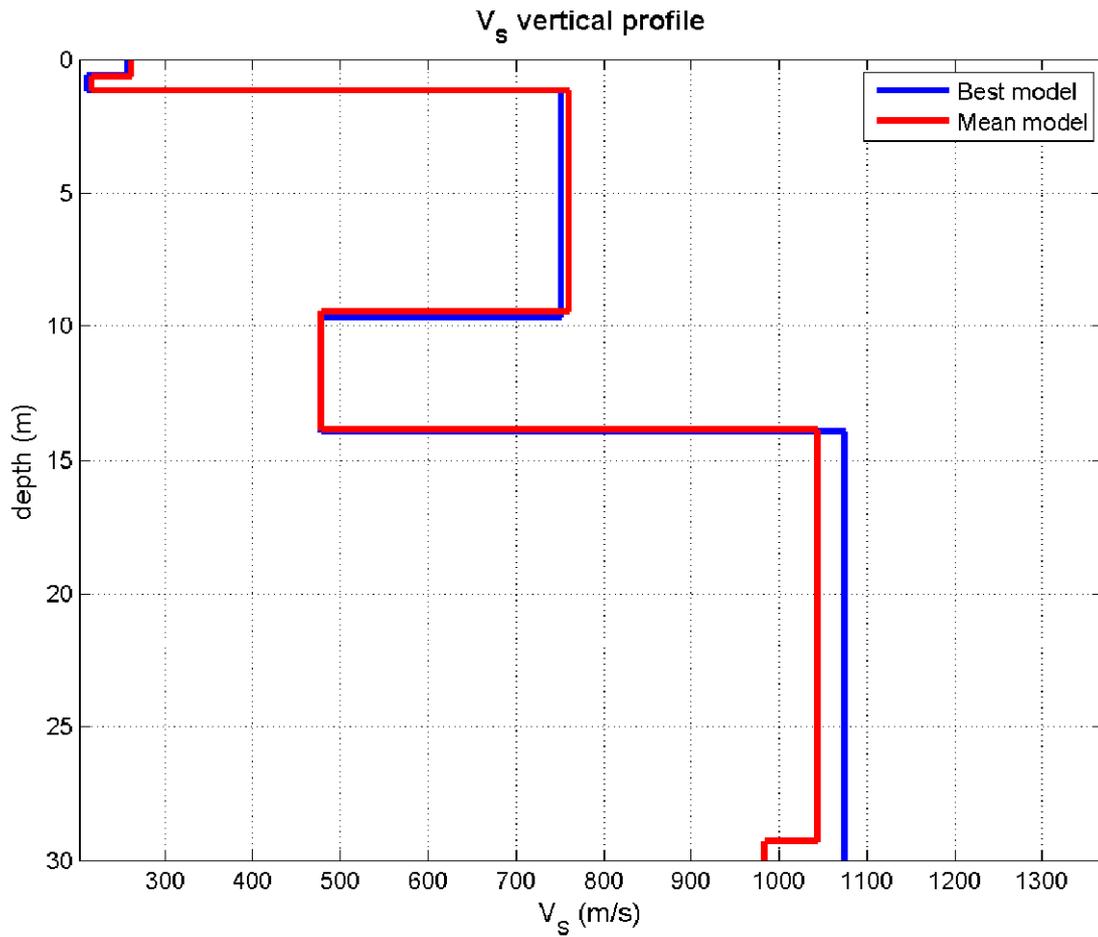
Stendimento MASW8



dataset: masw8#1.DAT
 dispersion curve: picking₈.cdp
 Vs30 (best model): 748 m/s
 Vs30 (mean model): 740 m/s



PROFILO DI VELOCITA' MASW8

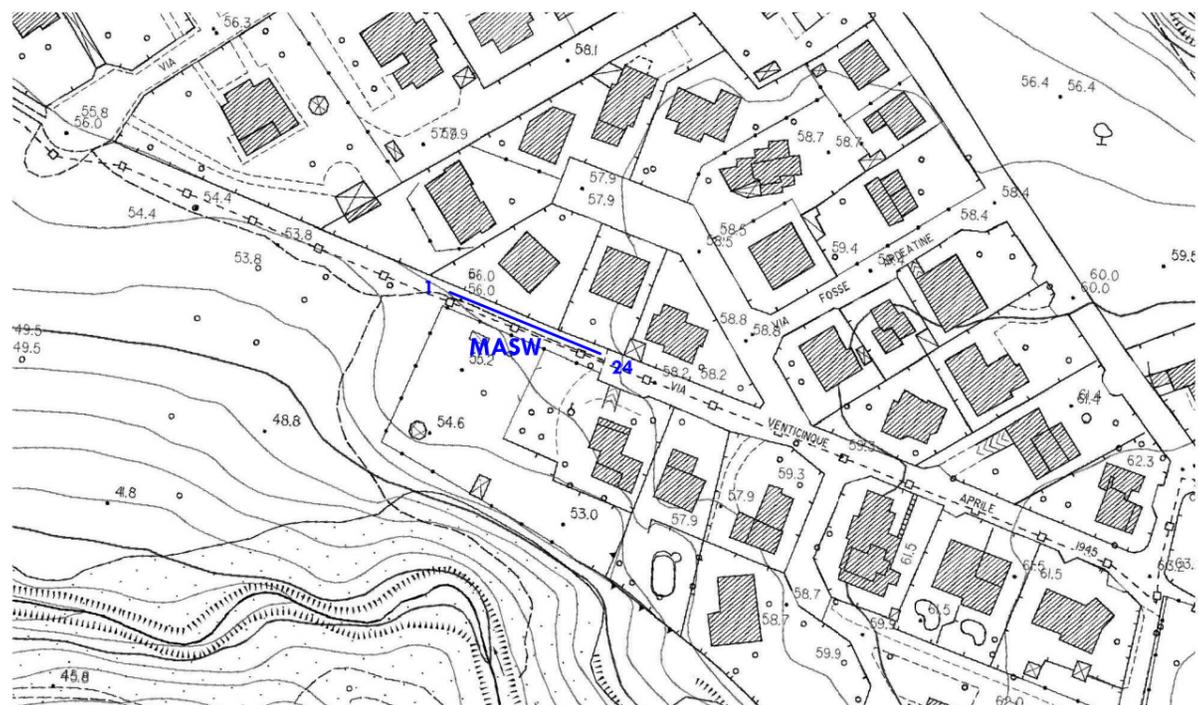


Vs (m/s):262, 217, 760, 478, 1044, 984, 1078, 1136
 Thickness (m):0.6, 0.5, 8.3, 4.4, 15.4, 19.9, 26.0

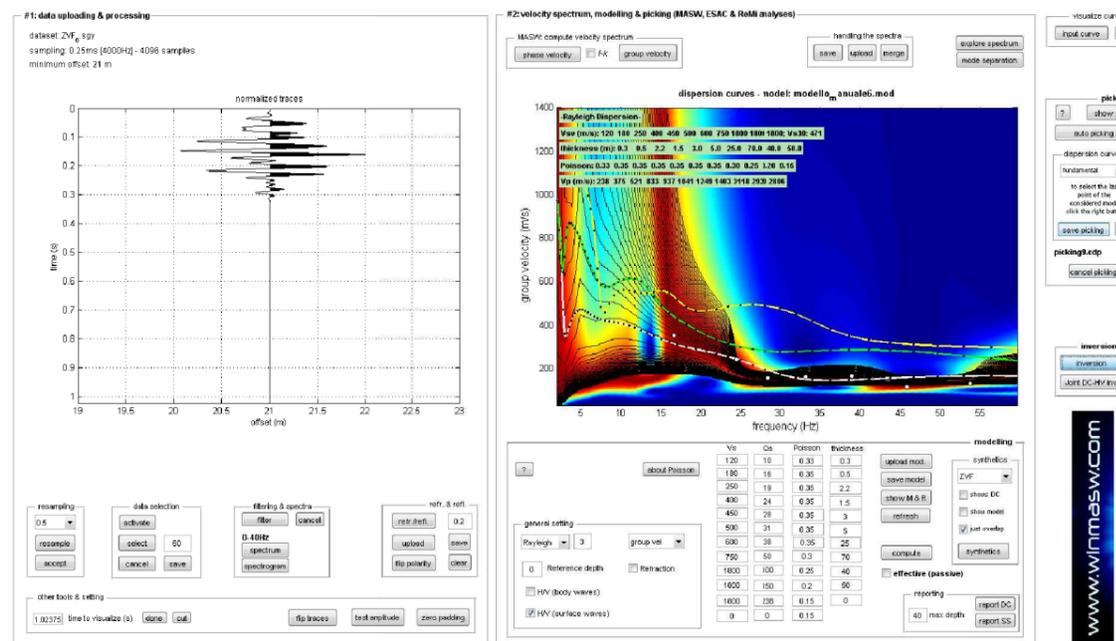
Density (gr/cm³) (approximate values):1.921.972.142.192.292.242.262.22
 Seismic/Dynamic Shear modulus (MPa) (approximate values):1329312355012492217226242869

Approximate values for Vp and Poisson
 Vp (m/s):576693141917692600217623162007
 Poisson:0.370.450.300.460.400.370.360.26

Vs30 (m/s): 740



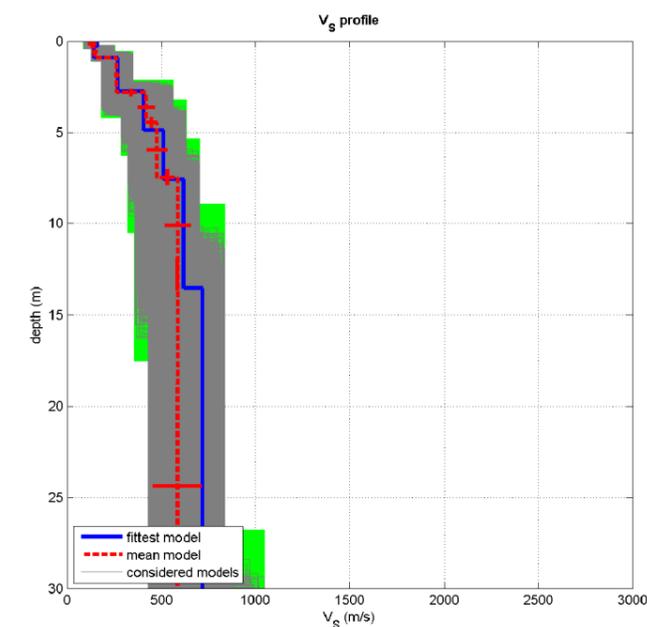
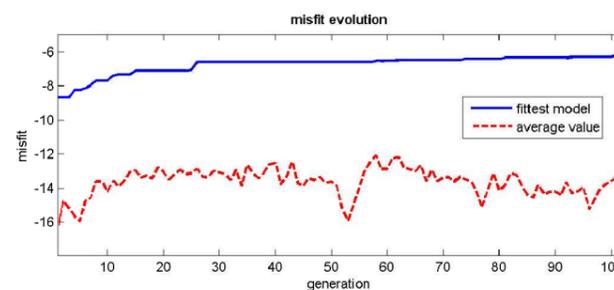
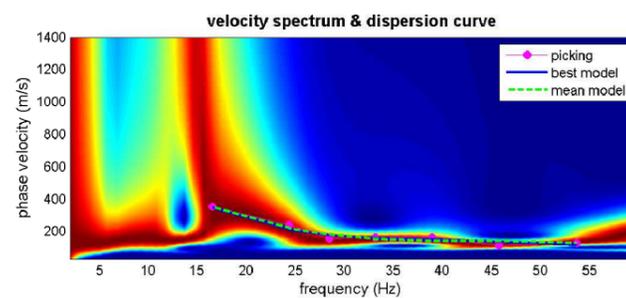
SPETTRO DI VELOCITA' MASW



1 MASW 24 Stendimento di sismica attiva MASW

INVERSIONE MASW E PROFILO DI VELOCITA'

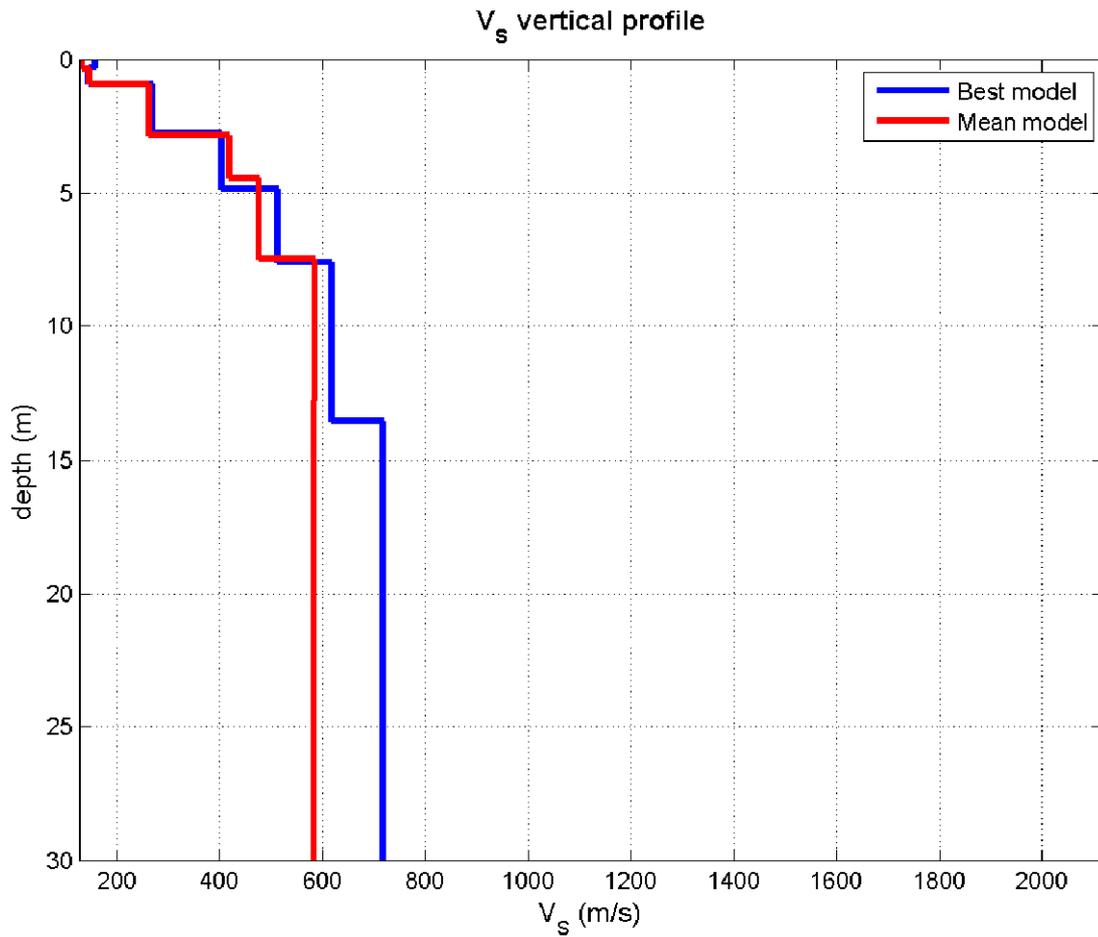
Stendimento MASW9



dataset: ZVF_sgy
dispersion curve: picking9.cdp
Vs30 (best model): 535 m/s
Vs30 (mean model): 480 m/s

www.winmasw.com

PROFILO DI VELOCITA' MASW9

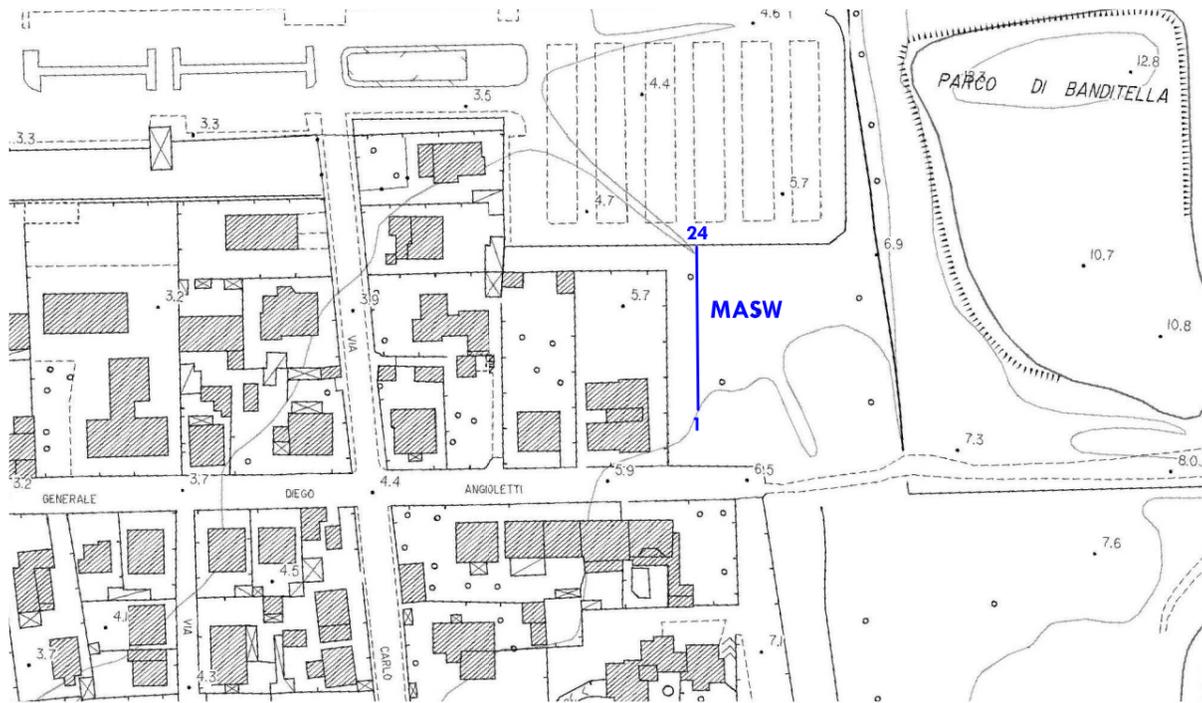


Vs (m/s):133, 148, 263, 419, 476, 586, 583, 909, 1837, 1945, 1779
 Thickness (m):0.3, 0.6, 1.9, 1.6, 3.0, 5.3, 23.2, 72.2, 39.1, 53.6

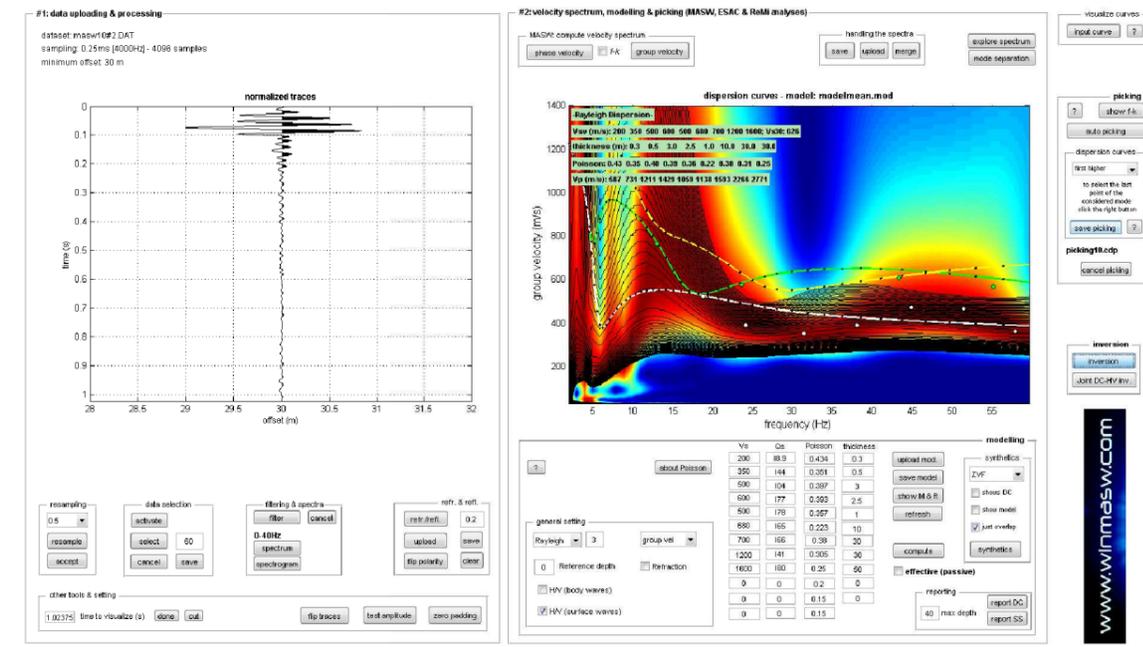
Density (gr/cm3) (approximate values):1.761.741.872.002.062.092.102.192.342.342.31
 Seismic/Dynamic Shear modulus (MPa) (approximate values):31381303524677187141810788588507302

Approximate values for Vp and Poisson
 Vp (m/s):2902754728121022116112111750319032302830
 Poisson:0.370.300.270.320.360.330.350.320.250.220.17

Vs30 (m/s): 480



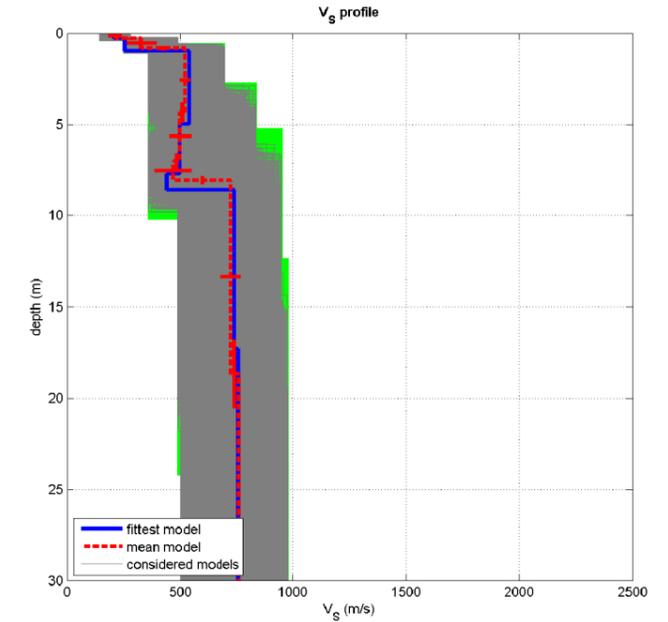
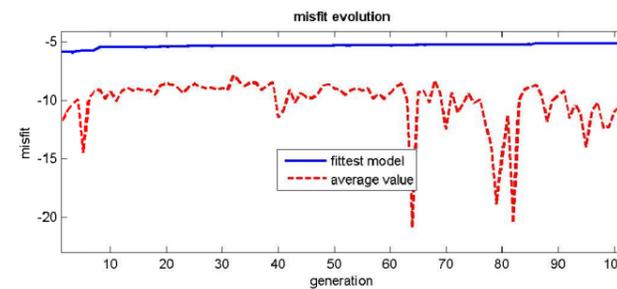
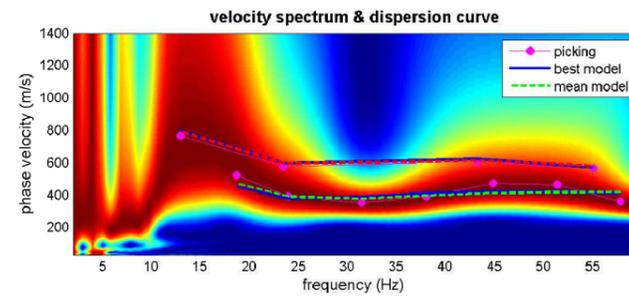
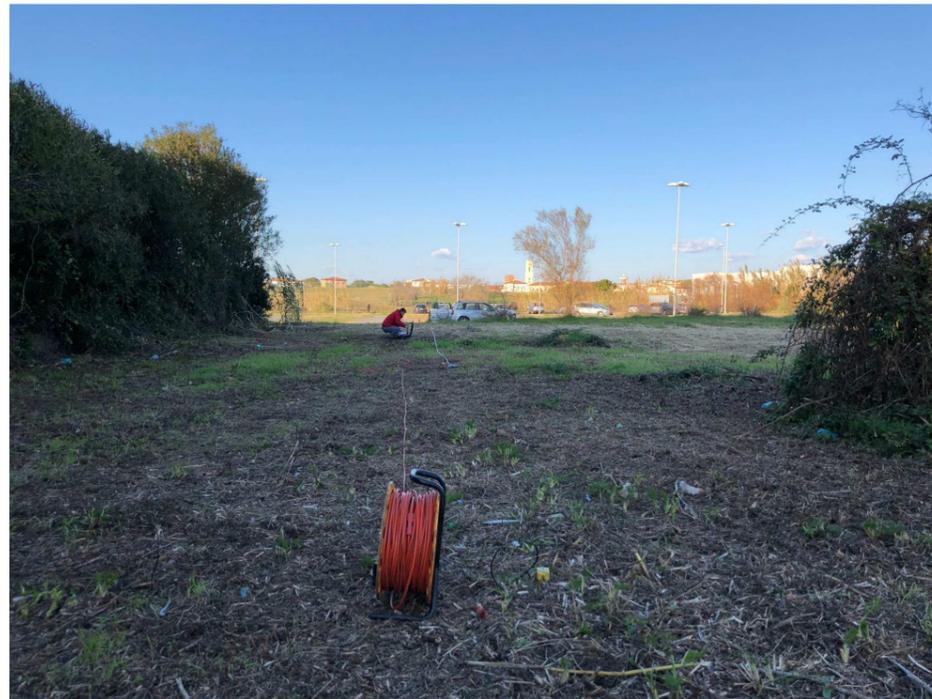
SPETTRO DI VELOCITA' MASW



1 MASW 24 Stendimento di sismica attiva MASW

INVERSIONE MASW E PROFILO DI VELOCITA'

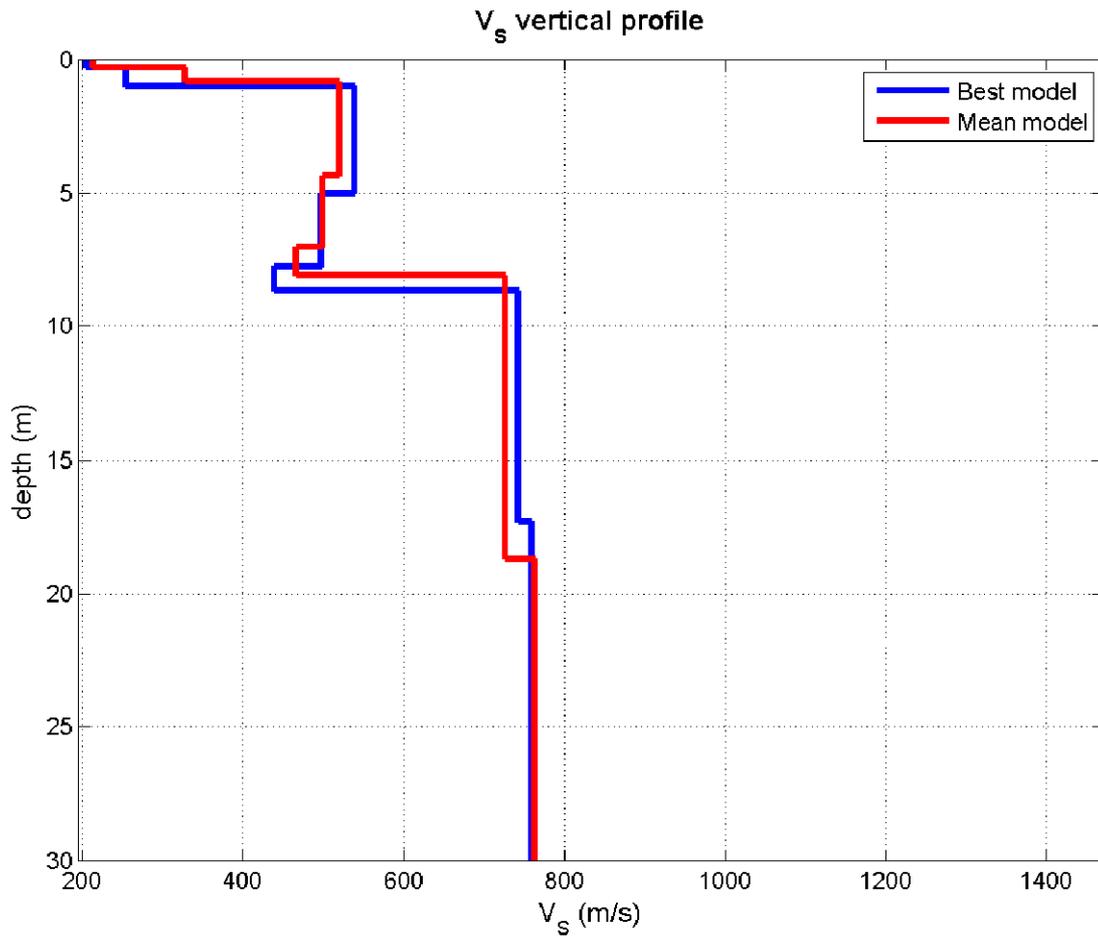
Stendimento MASW10



dataset: masw10#2.DAT
 dispersion curve: picking10.cdp
 Vs30 (best model): 631 m/s
 Vs30 (mean model): 640 m/s

www.wlnmasw.com

PROFILO DI VELOCITA' MASW10

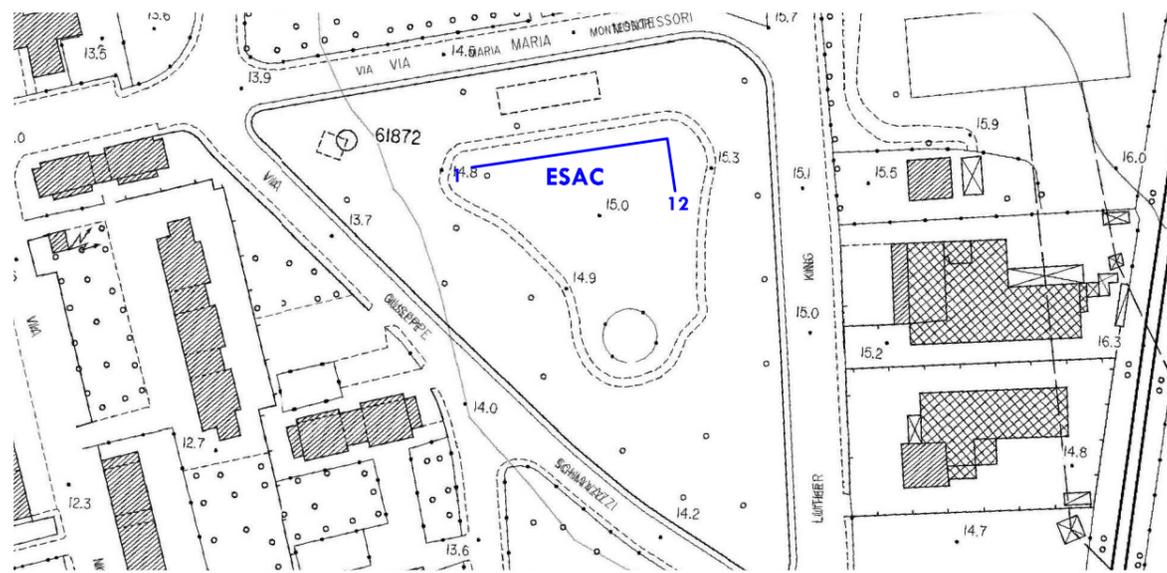


Vs (m/s):213, 328, 520, 499, 467, 726, 763, 1266, 1801
Thickness (m):0.3, 0.5, 3.5, 2.7, 1.0, 10.6, 29.7, 32.4

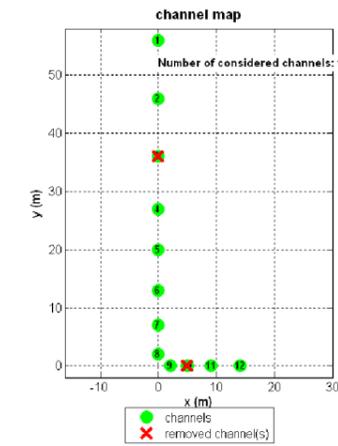
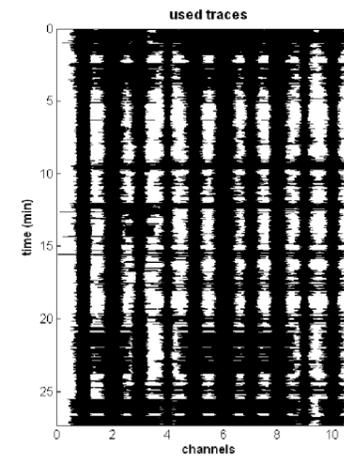
Density (gr/cm³) (approximate values):1.871.952.092.092.072.102.172.262.33
Seismic/Dynamic Shear modulus (MPa) (approximate values):852095665204511106126236267555

Approximate values for Vp and Poisson
Vp (m/s):4756401167116210591199159823543099
Poisson:0.370.320.380.390.380.210.350.300.25

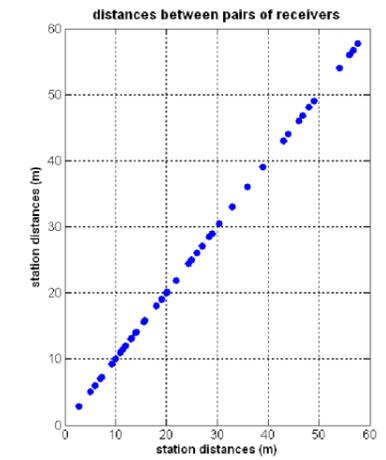
Vs30 (m/s): 640



ACQUISIZIONE ESAC



MASW_ESAC11_MS2



1 ESAC 12 Stendimento di sismica passiva ESAC

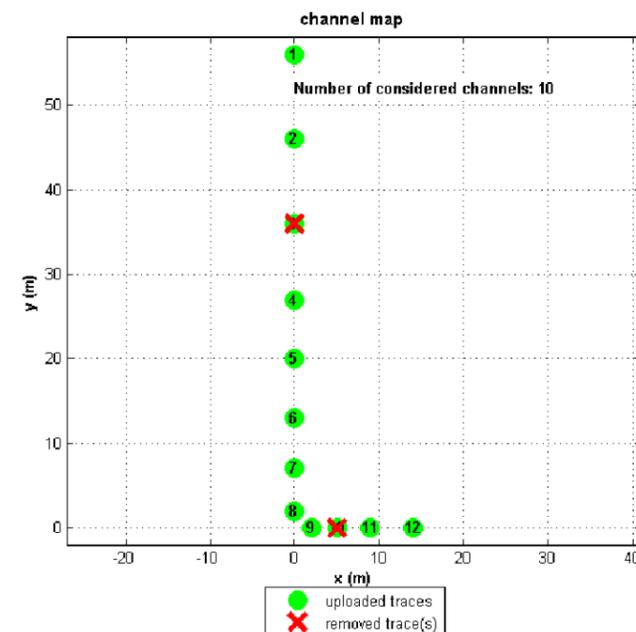
SPETTRO DI VELOCITA' ESAC E CURVA DI DISPERSIONE EFFETTIVA

x (m): first dataset: esac11#1.DAT
 y (m): sampling: 6 ms
 channels to remove:

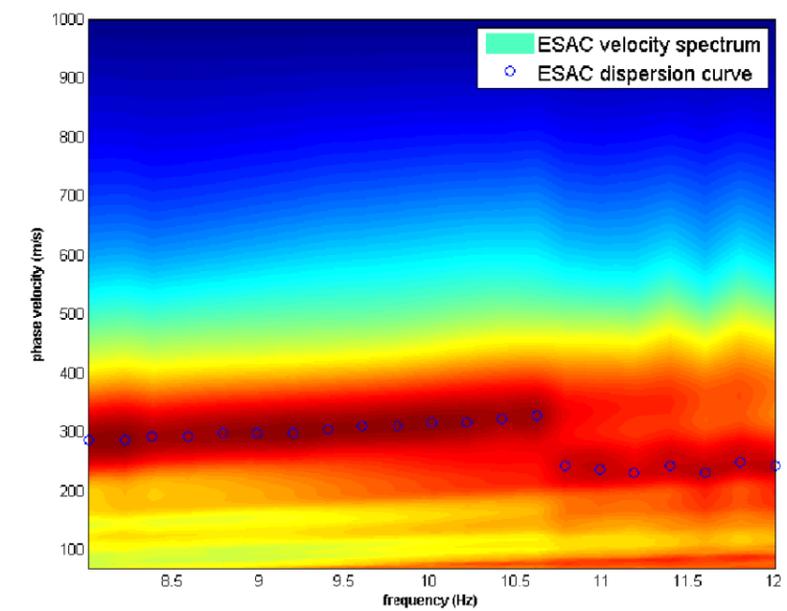
velocity spectrum
 min freq: max freq:
 min vel: max vel:
 4% spectral smoothing

FK parameters
 wavenumbers
 window length (s)
 ESAC parameters
 window length (s)

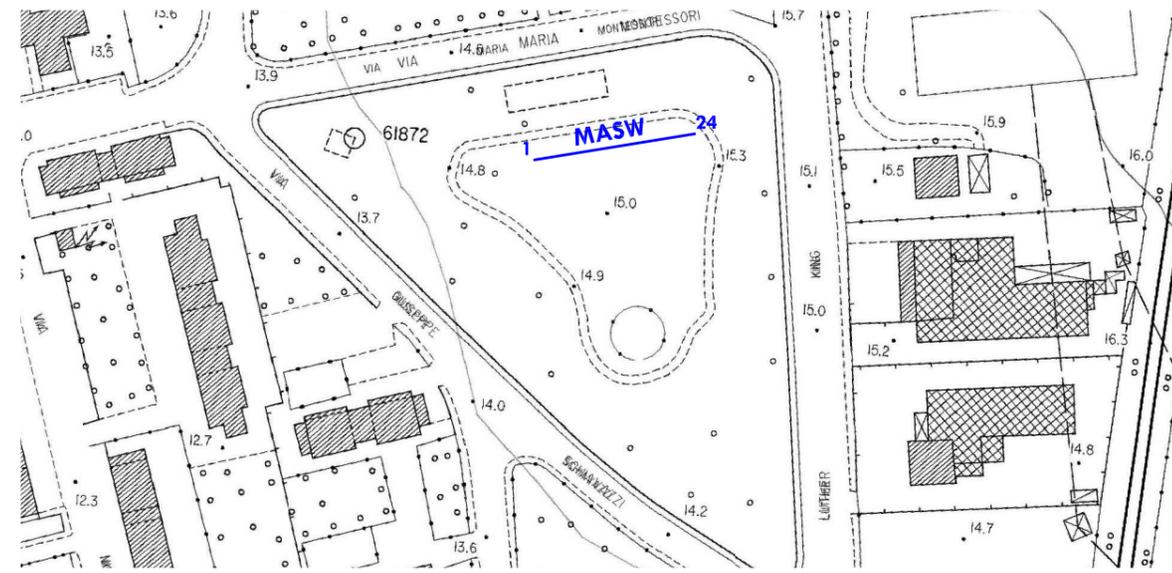
Stendimento ESAC11



resample to 6ms (166.666Hz)

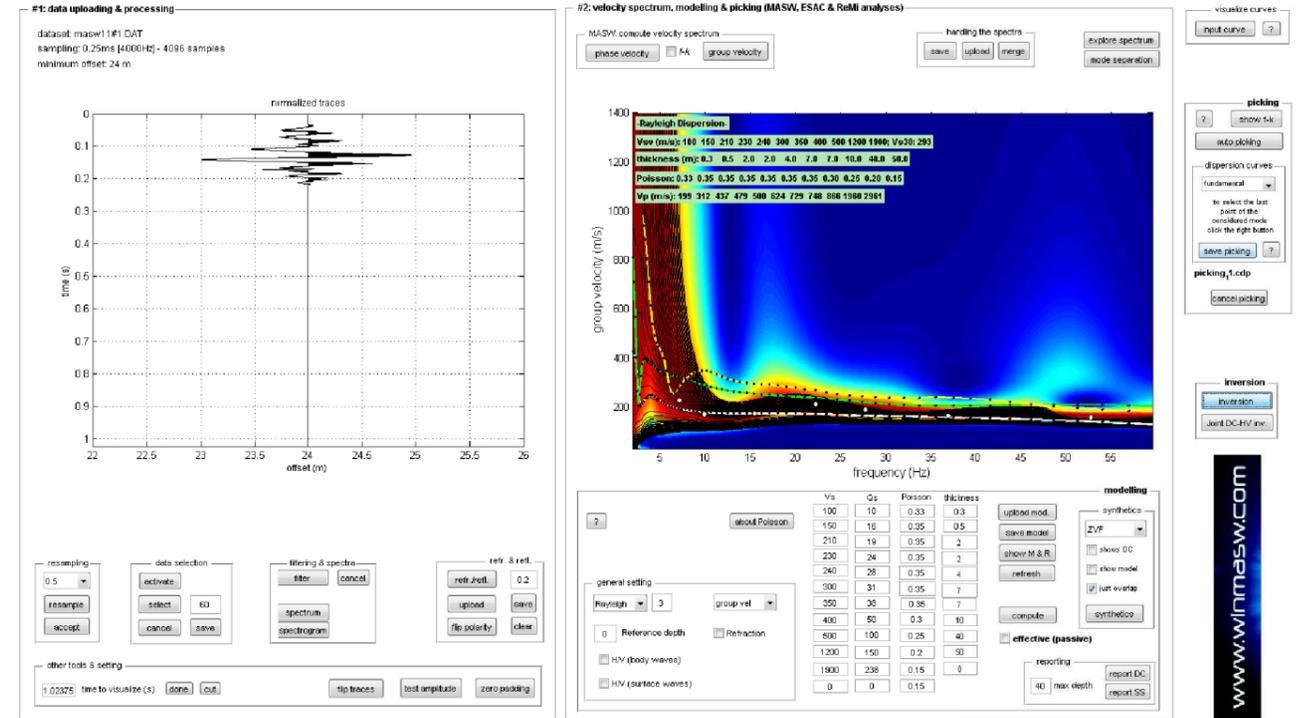


hold on
 verbose
 f-k analysis



1 MASW 24 Stendimento di sismica attiva MASW

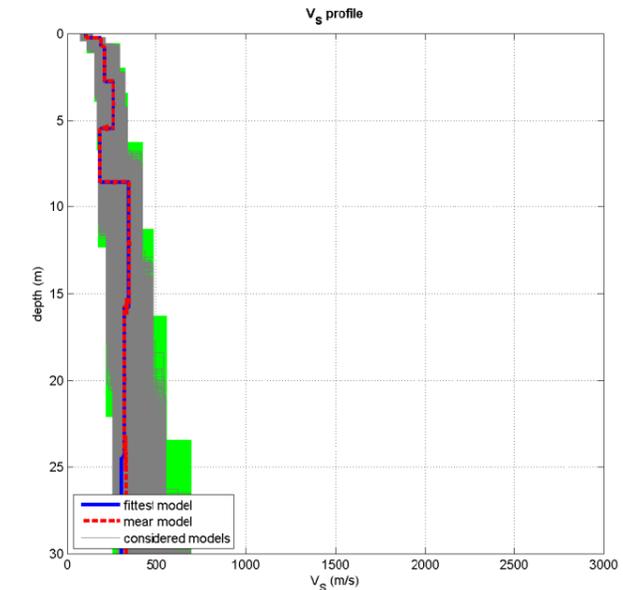
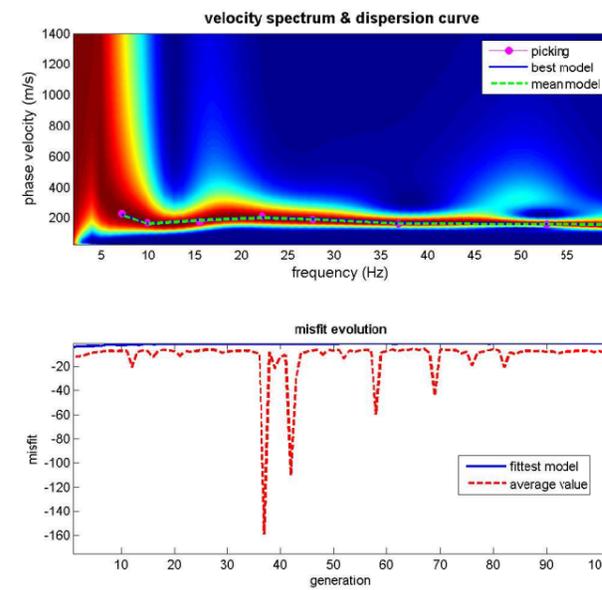
SPETTRO DI VELOCITA' MASW + CURVA DI DISPERSIONE EFFETTIVA ESAC



Stendimento MASW 11



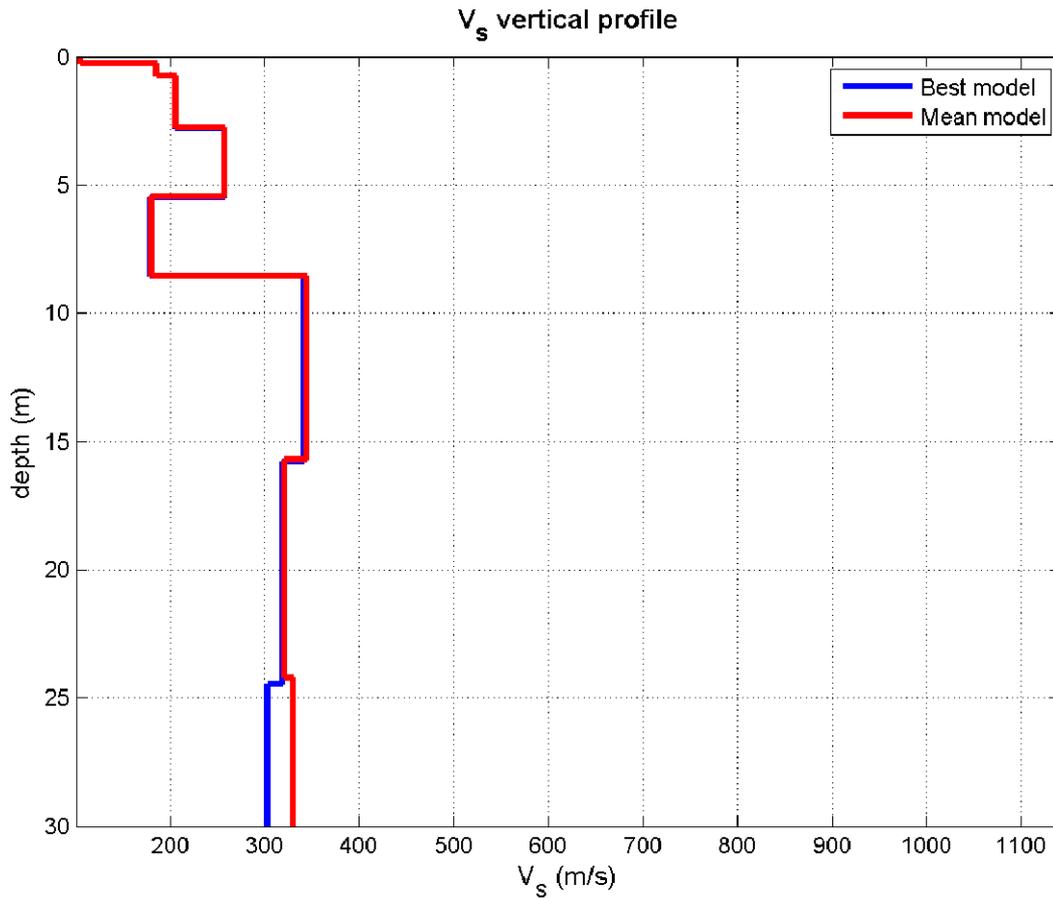
INVERSIONE CONGIUNTA MASW – ESAC E PROFILO DI VELOCITA'



dataset: masw11#1.DAT
 dispersion curve: picking_1.cdp
 Vs30 (best model): 275 m/s
 Vs30 (mean model): 280 m/s

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PROFILO DI VELOCITA' MASW 11 – ESAC 11

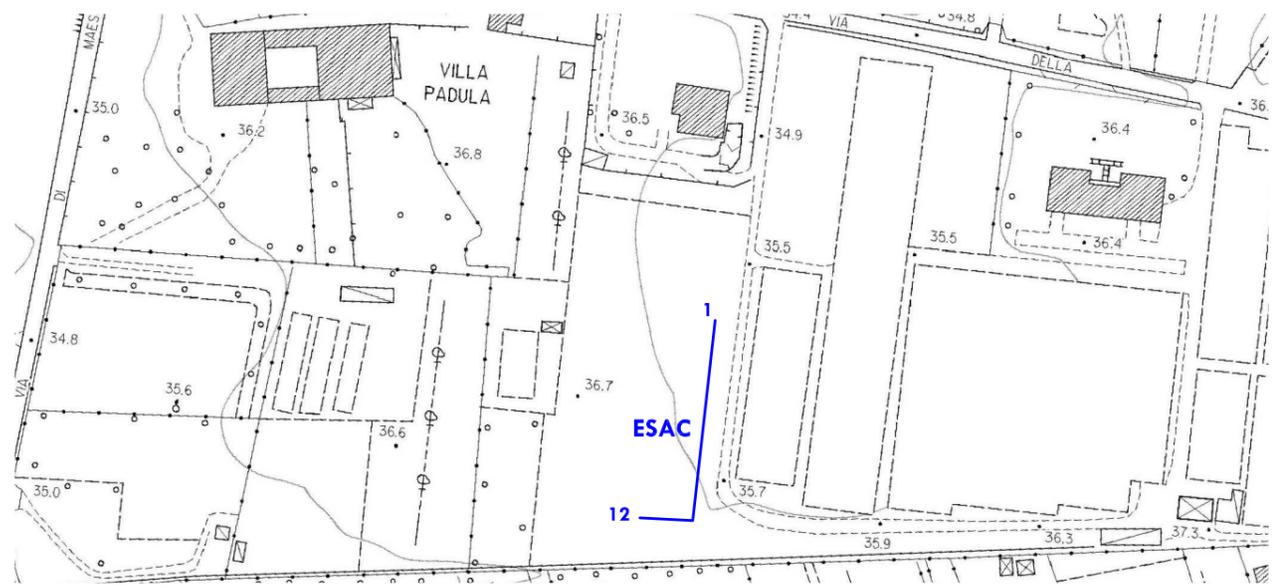


Vs (m/s): 105, 186, 206, 258, 180, 345, 321, 330, 462, 1049, 2366
 Thickness (m): 0.3, 0.5, 2.0, 2.7, 3.1, 7.2, 8.5, 9.8, 41.8, 54.9

Density (gr/cm³) (approximate values): 1.72 1.80 1.95 1.90 1.88 2.01 1.98 1.91 1.99 2.18 2.37
 Seismic/Dynamic Shear modulus (MPa) (approximate values): 19 62 83 127 61 240 204 208 424 2397 13283

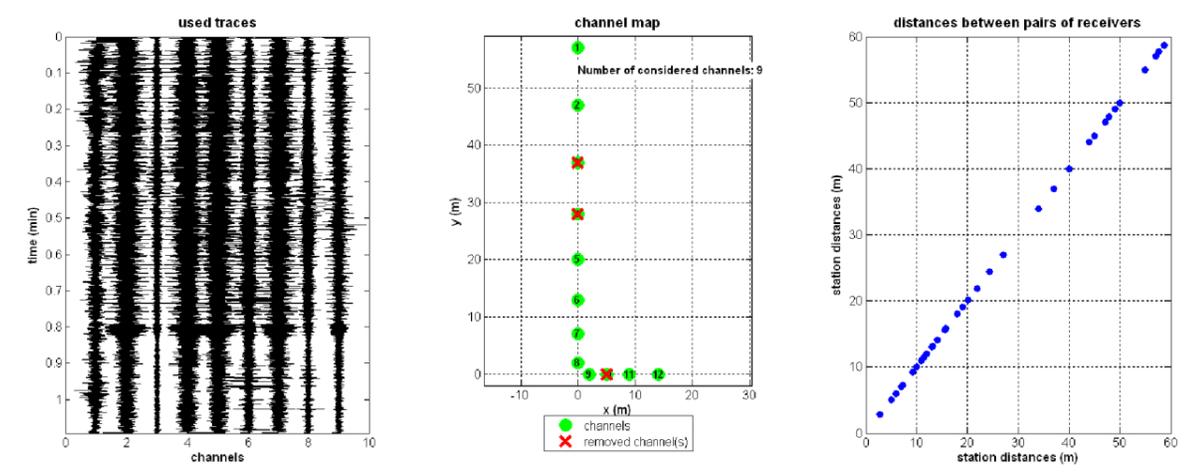
Approximate values for Vp and Poisson
 Vp (m/s): 253 354 658 537 494 851 741 550 755 1669 3701
 Poisson: 0.40 0.31 0.45 0.35 0.42 0.40 0.38 0.22 0.20 0.17 0.15

Vs30 (m/s): 280



1 ESAC 12 Stendimento di sismica passiva ESAC

ACQUISIZIONE ESAC



MASW_ESAC12_MS2

SPETTRO DI VELOCITA' ESAC E CURVA DI DISPERSIONE EFFETTIVA

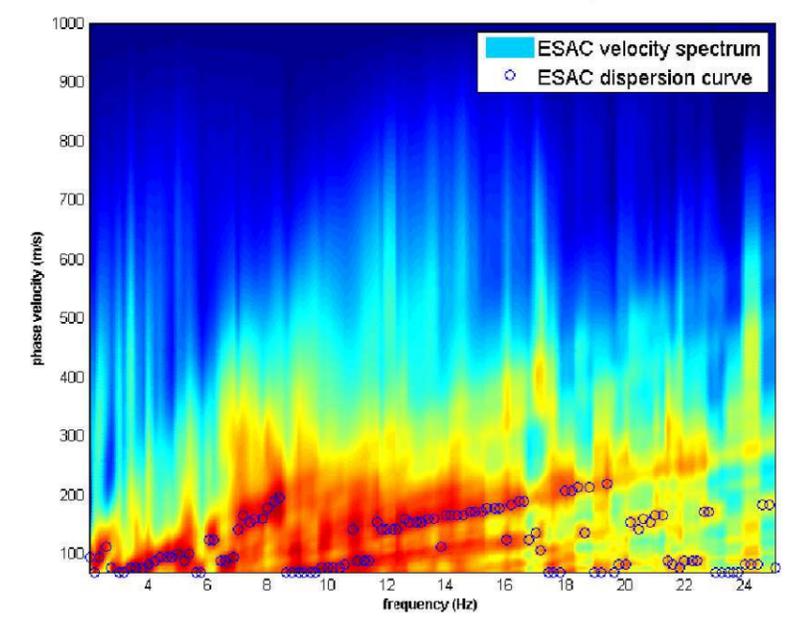
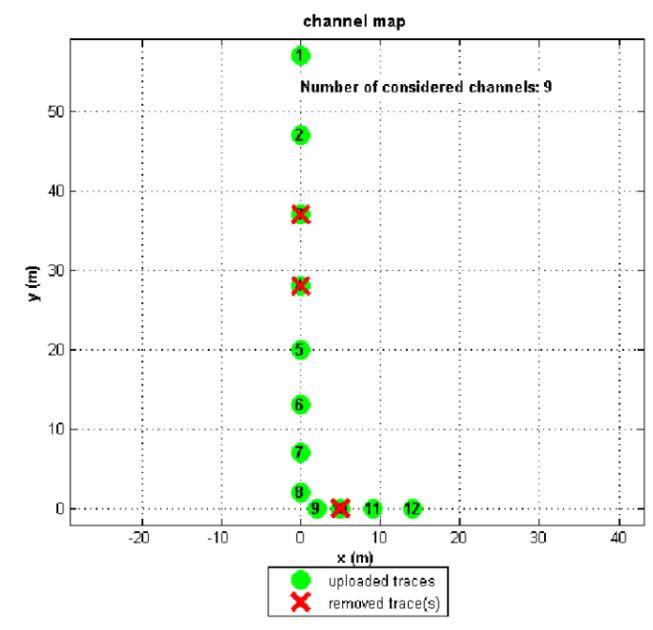
x (m): [0 0 0 0 0 0 0 2 5 9 14] dataset: esac12#1.DAT
 y (m): [57 47 37 28 20 13 7 2 0 0 0] sampling: 8 ms
 channels to remove: [3 4 10]

velocity spectrum: min freq: 2 max freq: 25
 min vel: 70 max vel: 1000
 4% spectral smoothing

FK parameters: 1024 wavenumbers
 10 window length (s)

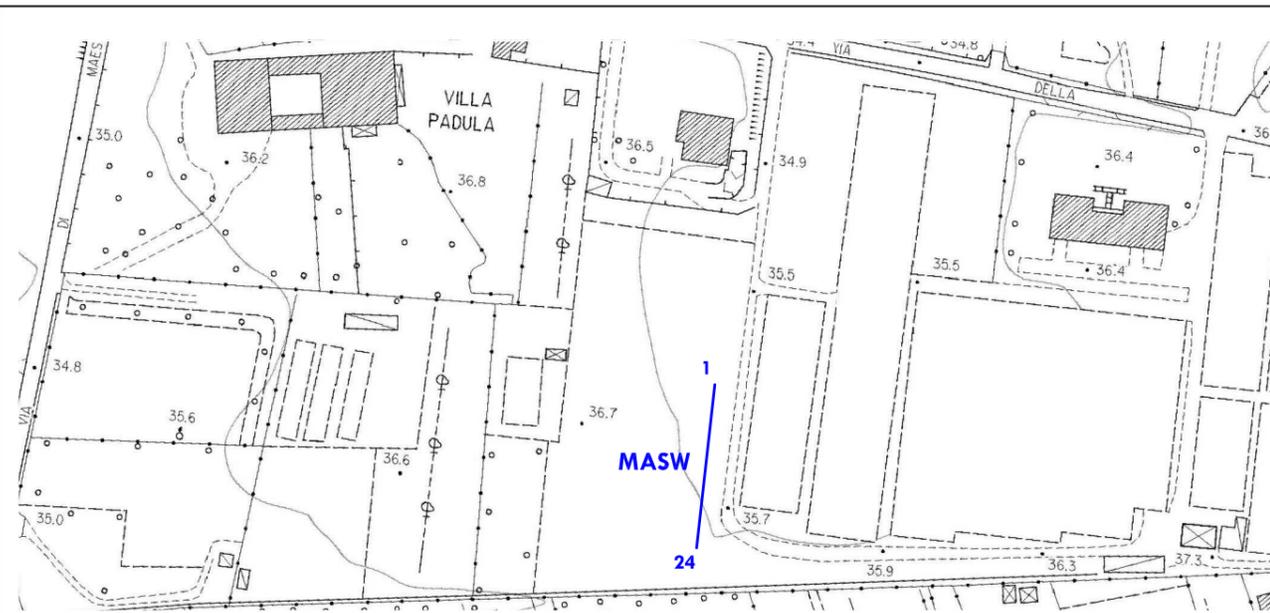
ESAC parameters: 10 window length (s)

Stendimento ESAC12



resample to 6ms (166.666Hz)

hold on
 verbose
 f-k analysis

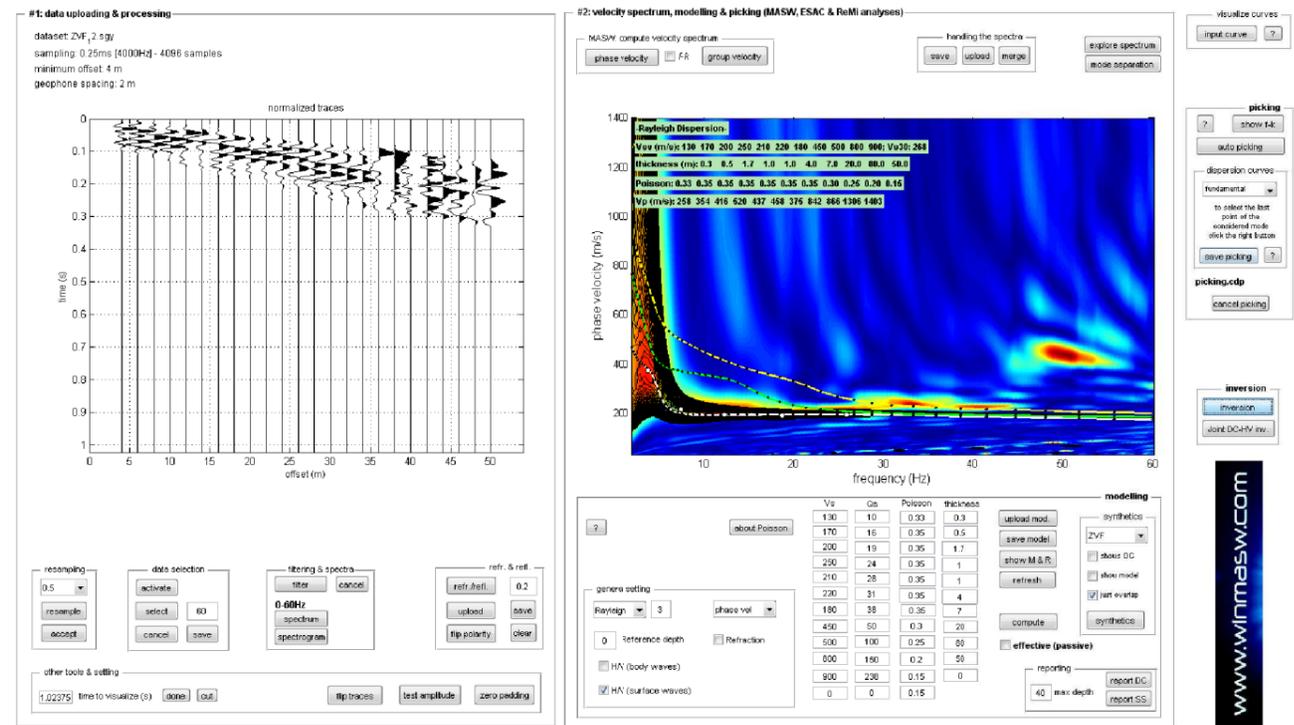


1 MASW 24 Stendimento di sismica attiva MASW

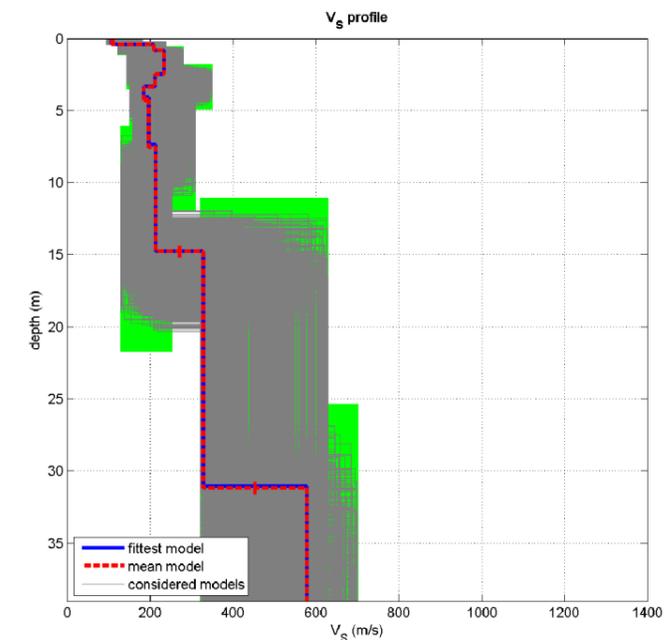
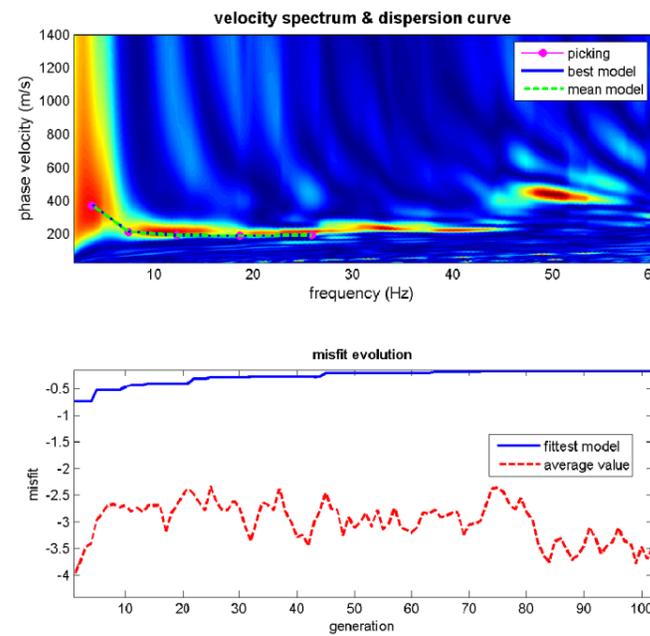
Stendimento MASW12



SPETTRO DI VELOCITA' MASW + CURVA DI DISPERSIONE EFFETTIVA ESAC



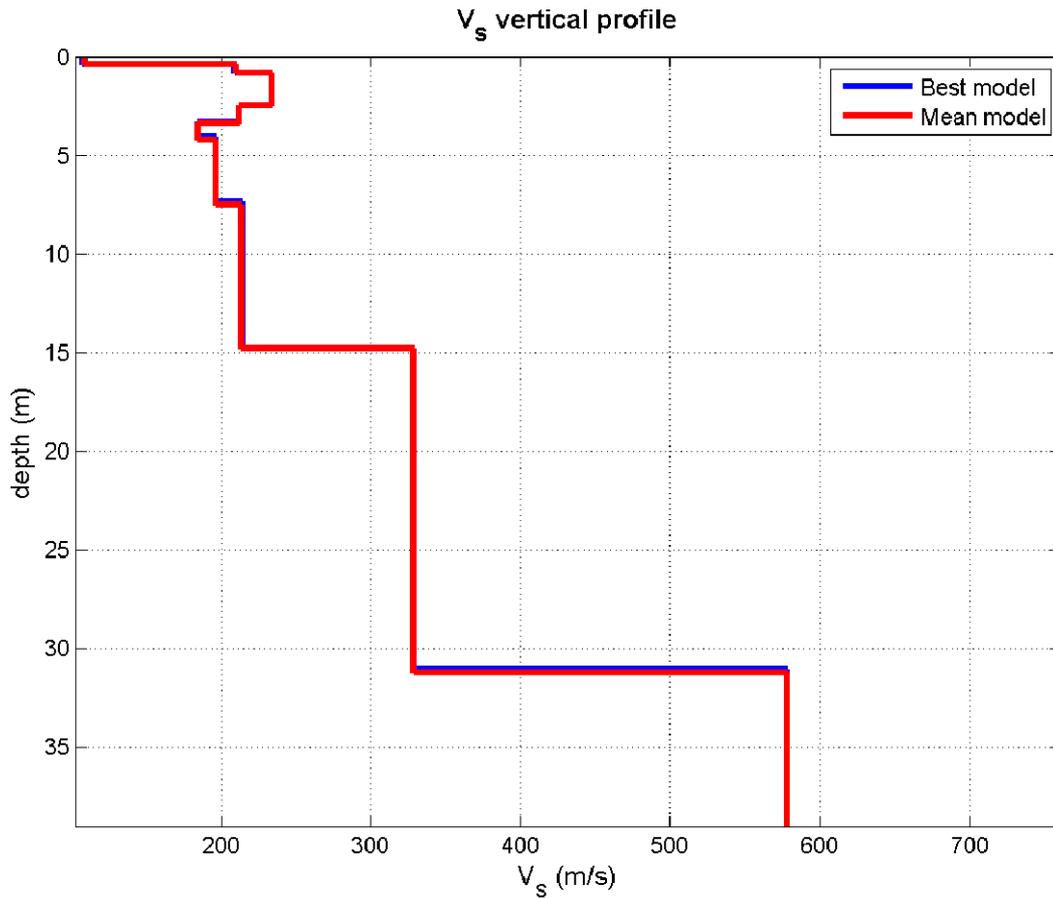
INVERSIONE CONGIUNTA MASW – ESAC E PROFILO DI VELOCITA'



dataset: ZVF_2.sgy
 dispersion curve: picking.cdp
 Vs30 (best model): 253 m/s
 Vs30 (mean model): 253 m/s

www.winmasw.com

PROFILO DI VELOCITA' MASW 12 – ESAC 12

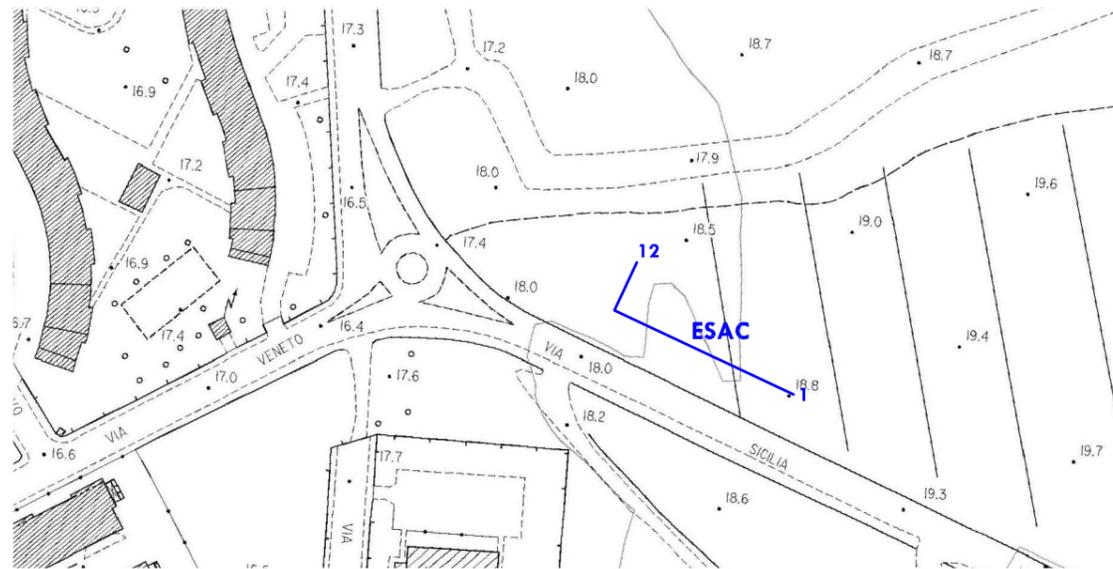


Vs (m/s):109, 210, 234, 212, 185, 197, 214, 329, 578, 824, 921
 Thickness (m):0.4, 0.4, 1.6, 0.9, 0.9, 3.3, 7.3, 16.4, 93.4, 55.2

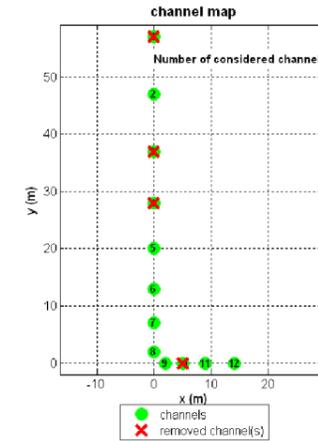
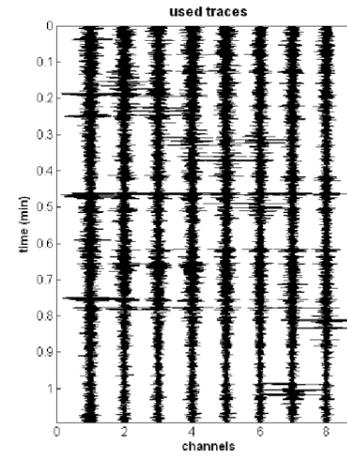
Density (gr/cm3) (approximate values):1.751.991.911.811.801.941.841.922.052.142.14
 Seismic/Dynamic Shear modulus (MPa) (approximate values):21881058162758420868614511812

Approximate values for Vp and Poisson
 Vp (m/s):279758556363355631414577100014091407
 Poisson:0.410.460.390.240.310.450.320.260.250.240.13

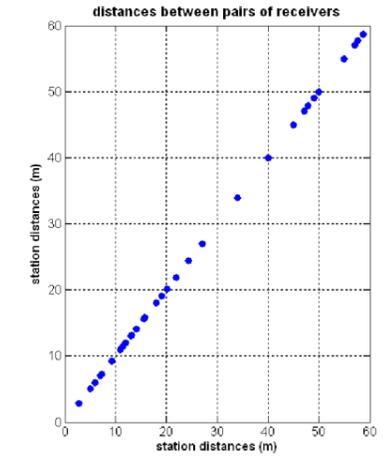
Vs30 (m/s): 253



ACQUISIZIONE ESAC



MASW_ESAC13_MS2



1 ESAC 12 Stendimento di sismica passiva ESAC

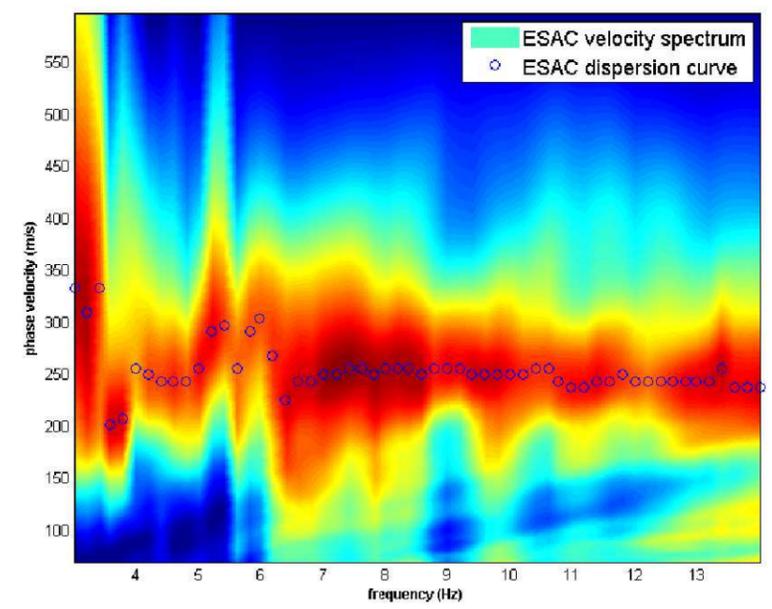
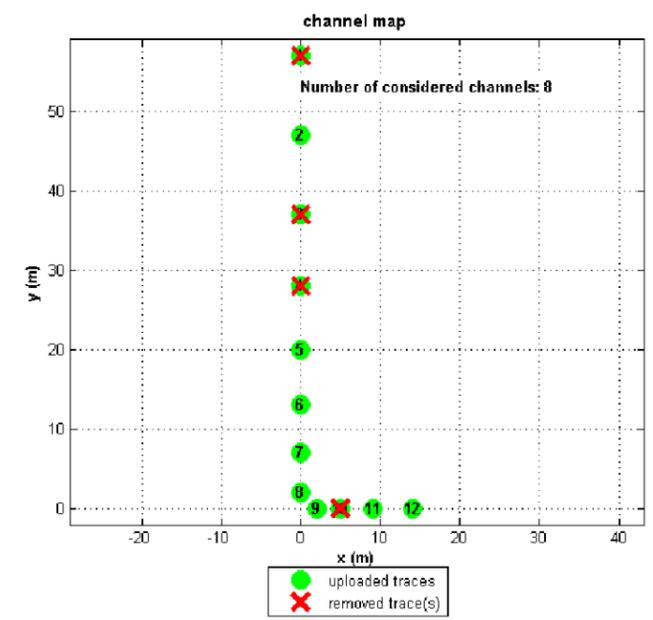
SPETTRO DI VELOCITA' ESAC E CURVA DI DISPERSIONE EFFETTIVA

x (m): [0 0 0 0 0 0 0 2 5 9 14] dataset: esac13#1.DAT
 y (m): [57 47 37 28 20 13 7 2 0 0 0] sampling: 8 ms
 channels to remove: [1 3 4 10]

velocity spectrum: min freq: 3 max freq: 14
 min vel: 70 max vel: 600
 4% spectral smoothing

FK parameters: 1024 wavenumbers
 10 window length (s)
 ESAC parameters: 20 window length (s)

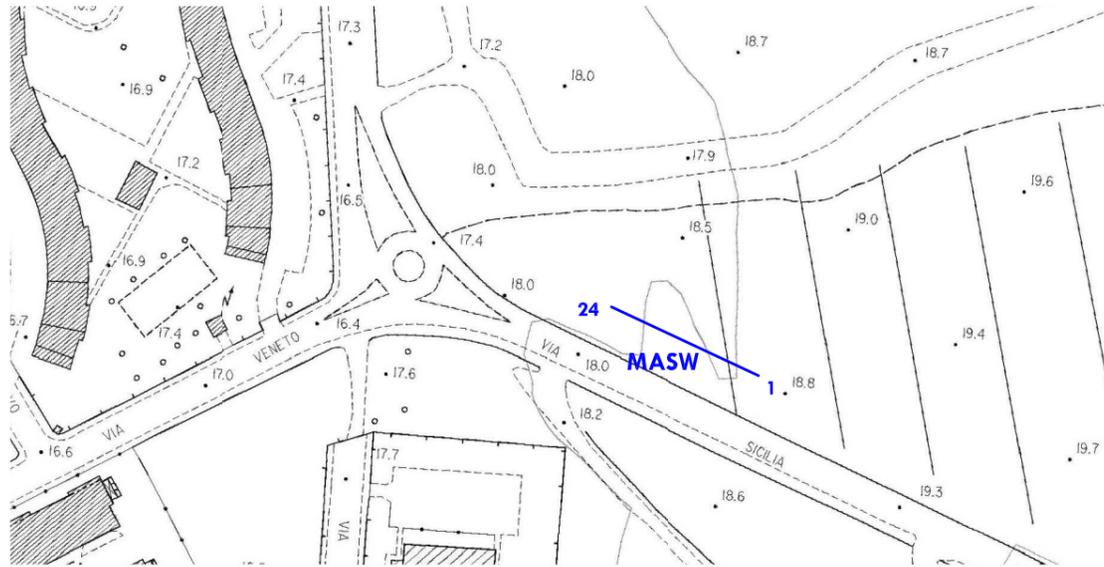
Stendimento ESAC13



resample to 6ms (166.666Hz)

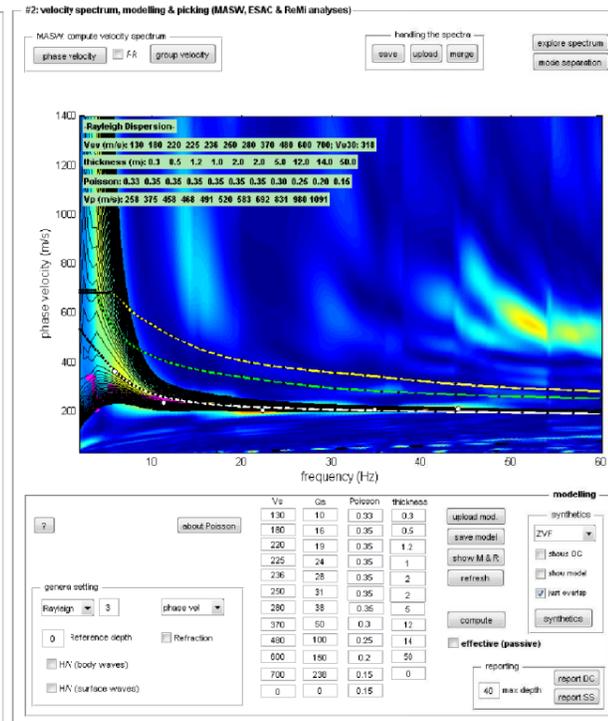
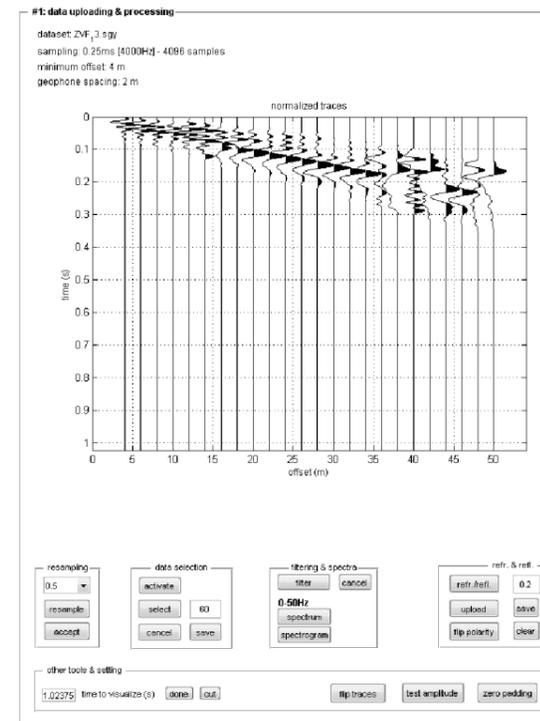
hold on verbose f-k analysis

SPETTRO DI VELOCITA' MASW + CURVA DI DISPERSIONE EFFETTIVA ESAC

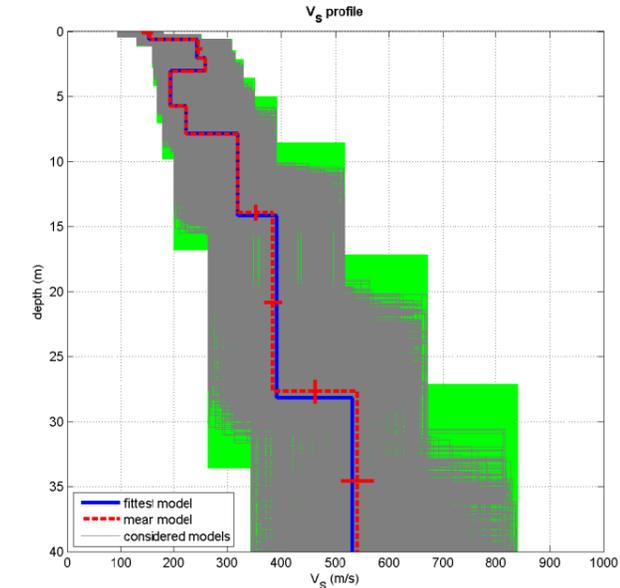
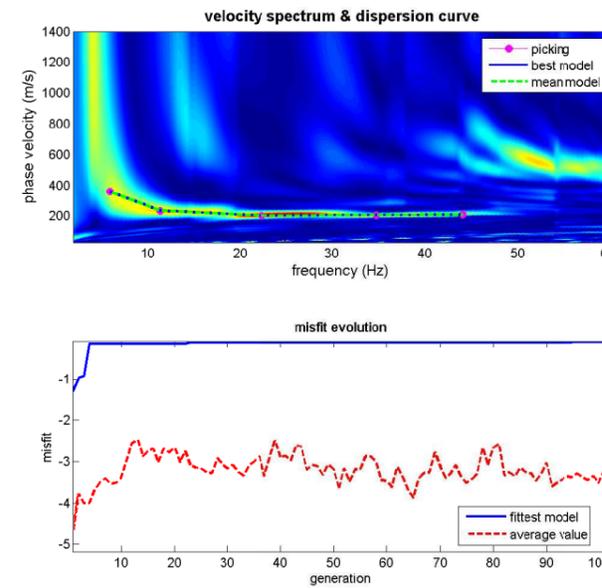


1 MASW 24 Stendimento di sismica attiva MASW

Stendimento MASW13



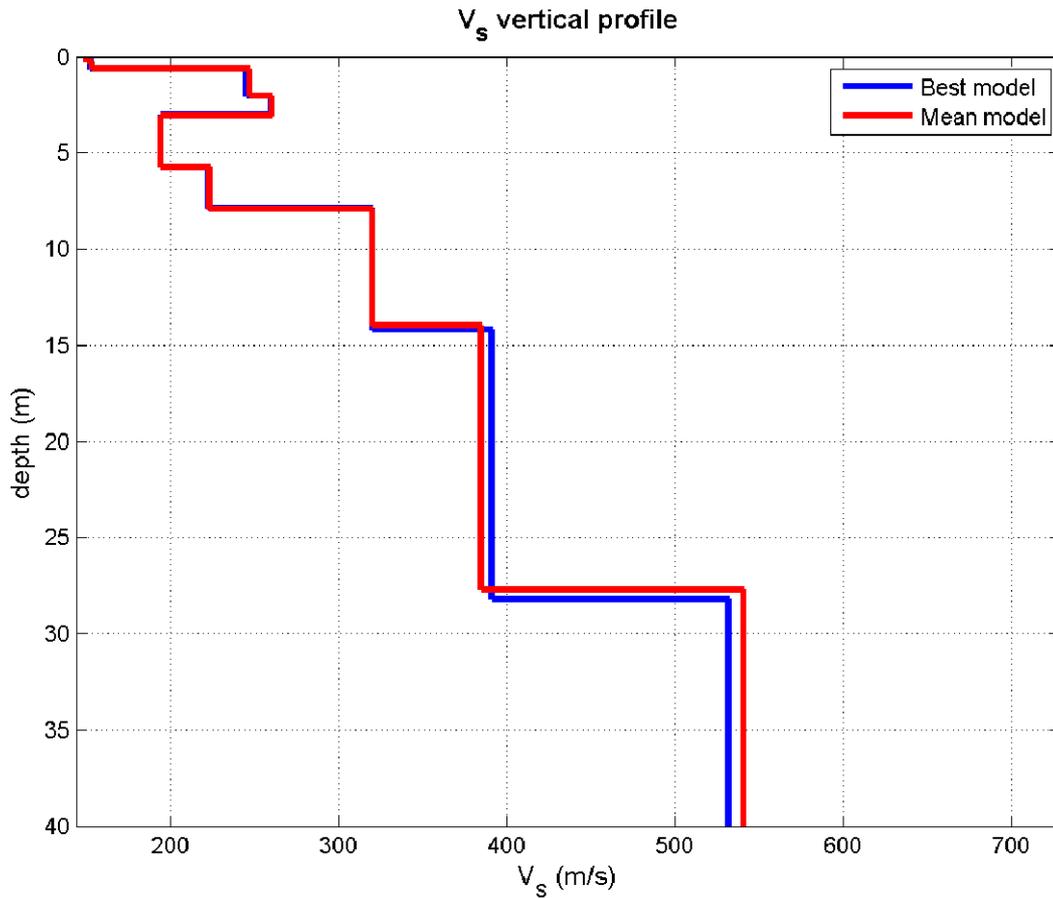
INVERSIONE CONGIUNTA MASW – ESAC E PROFILO DI VELOCITA'



dataset: ZVF_3.sgy
 dispersion curve: picking_3.cdp
 Vs30 (best model): 313 m/s
 Vs30 (mean model): 312 m/s



PROFILO DI VELOCITA' MASW 13 – ESAC 13

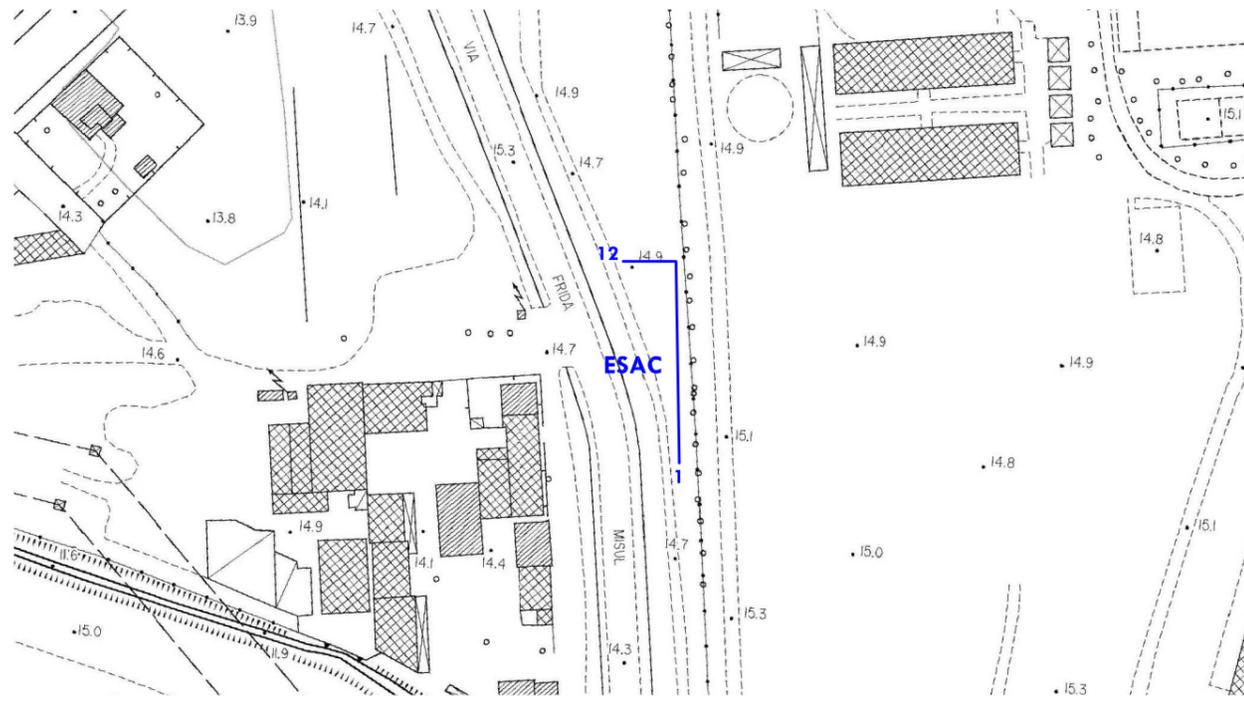


Vs (m/s):150, 153, 247, 260, 194, 223, 320, 385, 541, 653, 563
 Thickness (m):0.2, 0.4, 1.4, 1.0, 2.7, 2.2, 6.0, 13.7, 13.8, 58.1

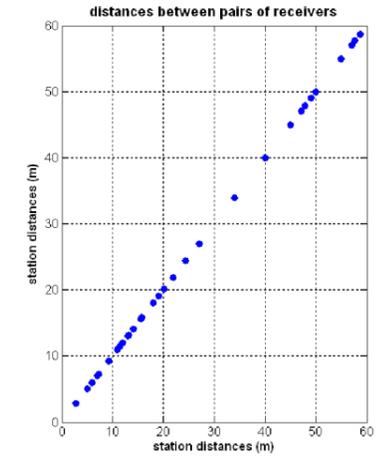
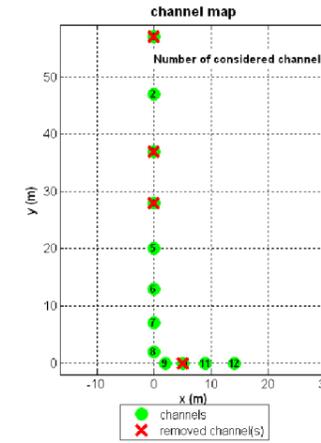
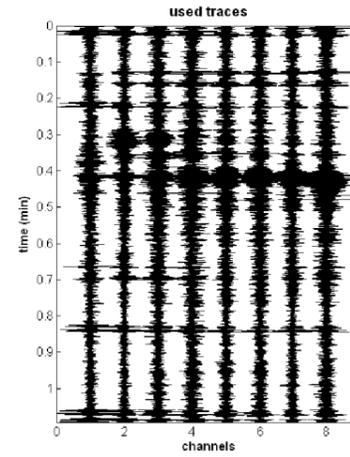
Density (gr/cm³) (approximate values):1.781.751.921.891.811.861.961.952.062.072.03
 Seismic/Dynamic Shear modulus (MPa) (approximate values):40411171286892201289603883642

Approximate values for Vp and Poisson
 Vp (m/s):32328657351835844667864710291070894
 Poisson:0.360.300.390.330.290.330.360.230.310.200.17

Vs30 (m/s): 312



ACQUISIZIONE ESAC



MASW_ESAC14_MS2

1 ESAC 12 Stendimento di sismica passiva ESAC

SPETTRO DI VELOCITA' ESAC E CURVA DI DISPERSIONE EFFETTIVA

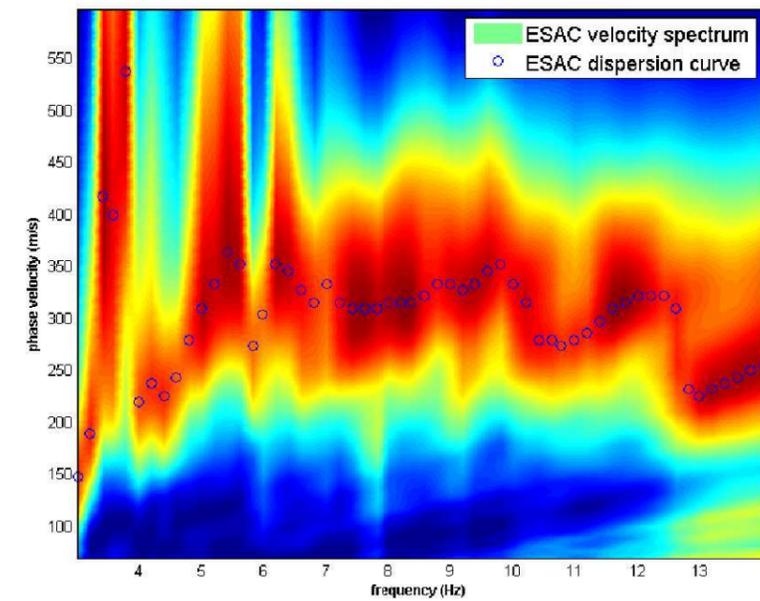
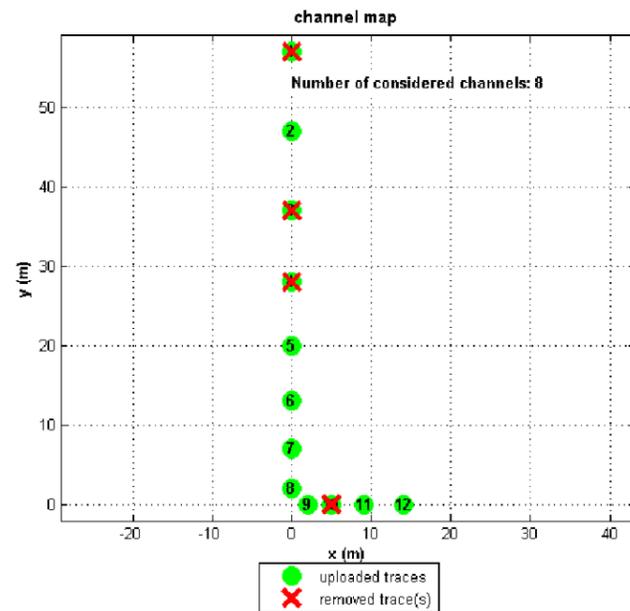
x (m): dataset: esac14#1.DAT
 y (m): sampling: 8 ms
 channels to remove:

velocity spectrum: min freq: max freq:
 min vel: max vel:
 4% spectral smoothing

FK parameters: wavenumbers
 window length (s)

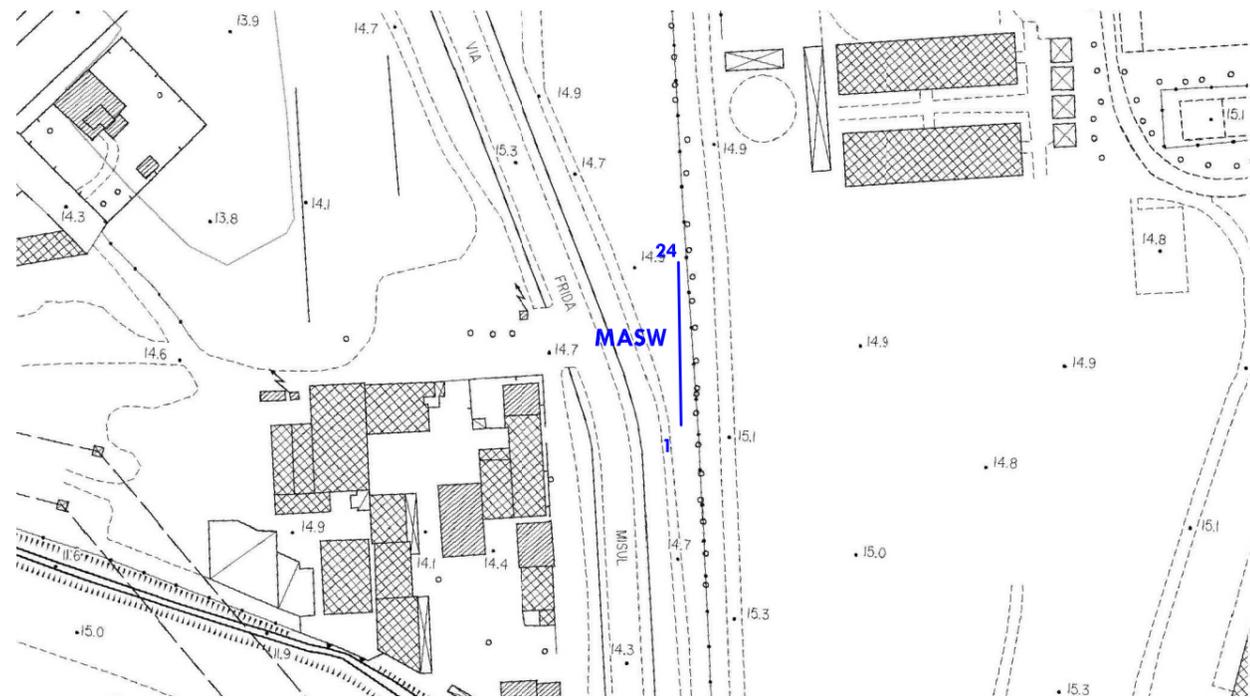
ESAC parameters: window length (s)

Stendimento ESAC14



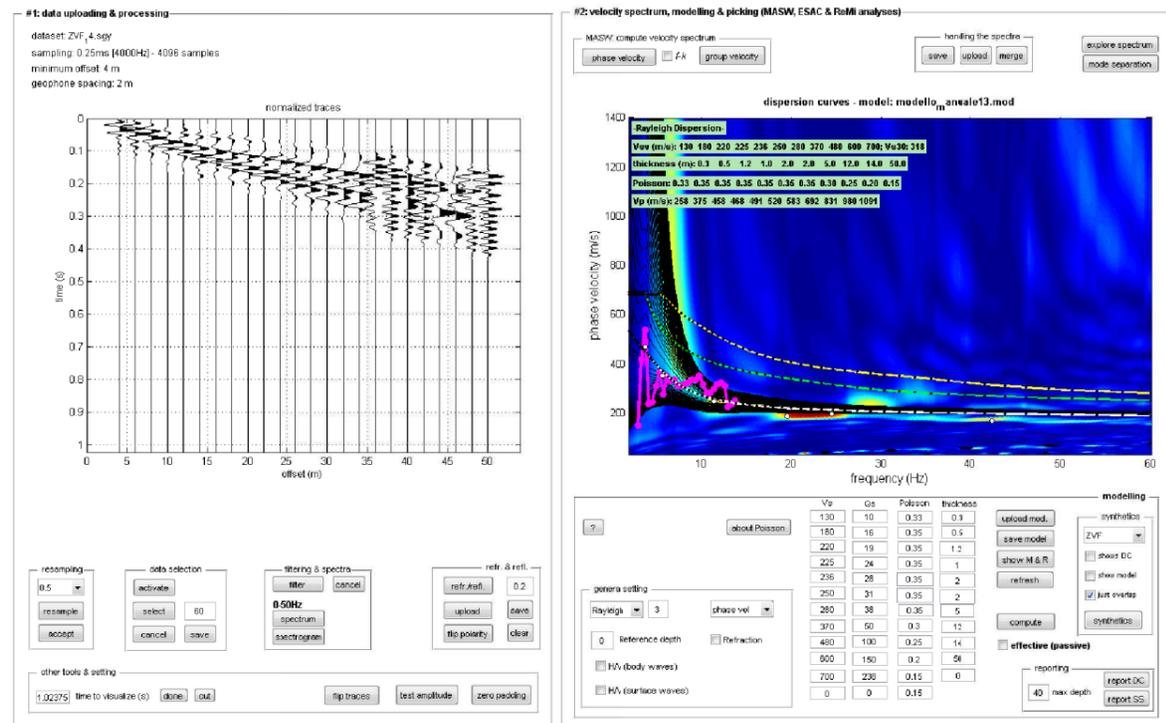
resample to 6ms (166.666Hz)

hold on
 verbose
 f-k analysis



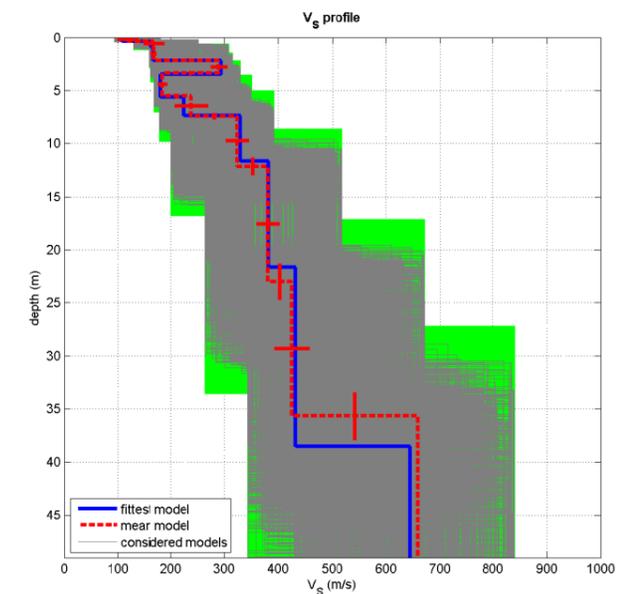
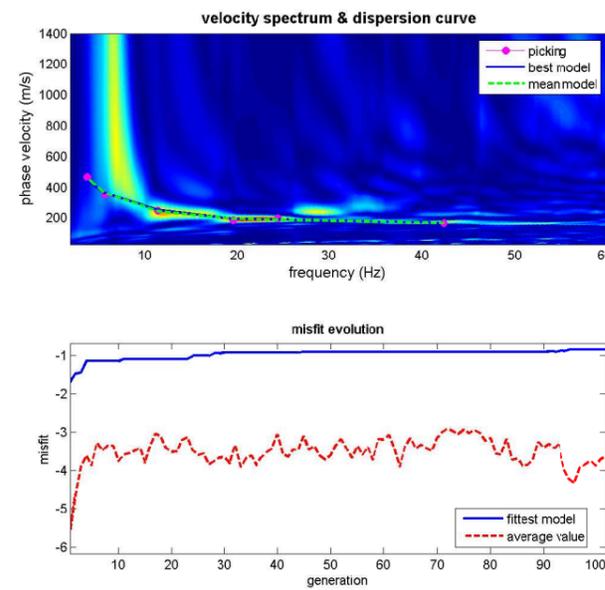
1 **MASW 24** Stendimento di sismica attiva MASW

SPETTRO DI VELOCITA' MASW + CURVA DI DISPERSIONE EFFETTIVA ESAC



Stendimento MASW14

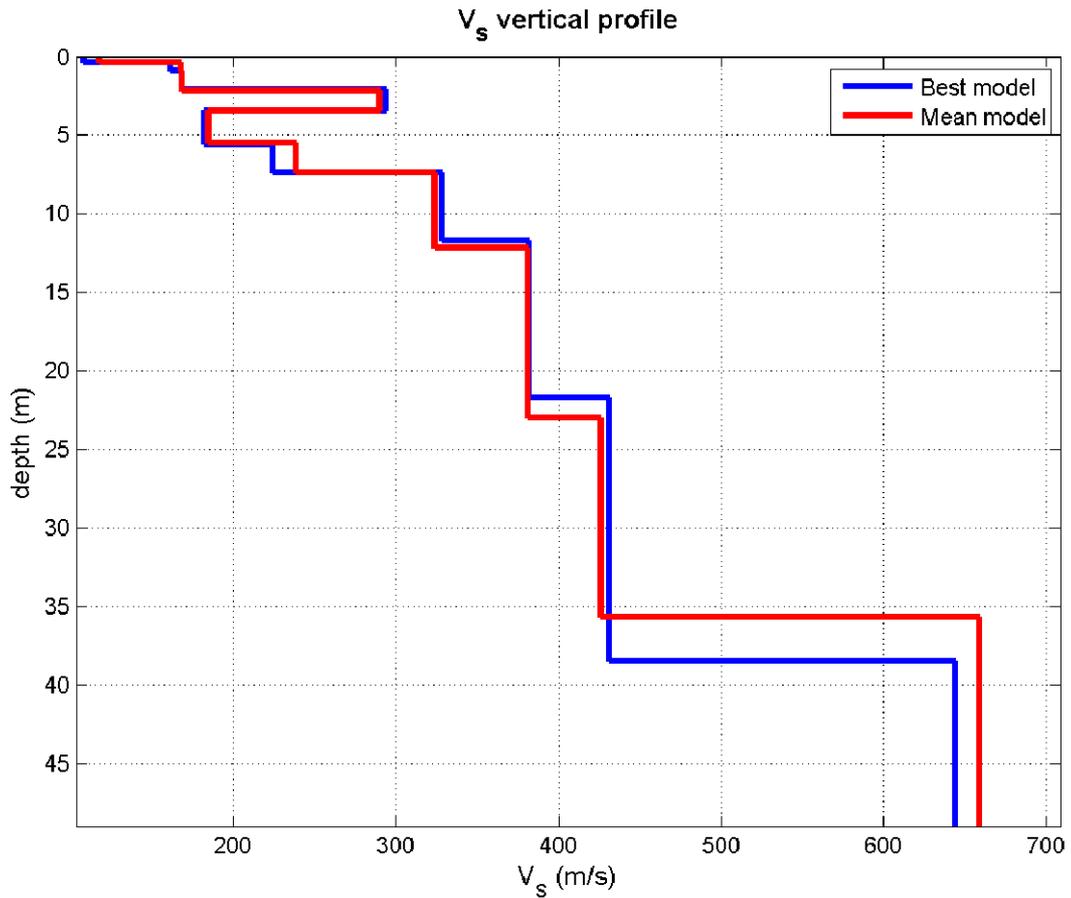
INVERSIONE CONGIUNTA MASW – ESAC E PROFILO DI VELOCITA'



dataset: ZVF_4.sgy
 dispersion curve: picking_4.cdp
 Vs30 (best model): 310 m/s
 Vs30 (mean model): 310 m/s



PROFILO DI VELOCITA' MASW 14 – ESAC 14

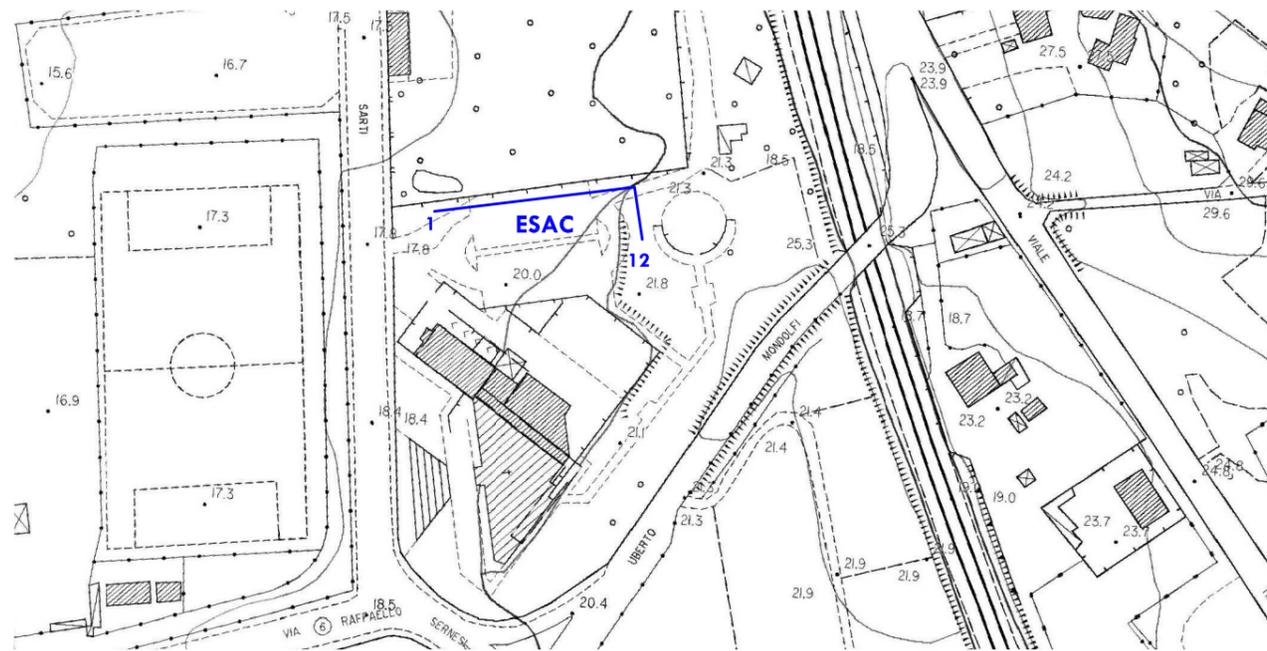


Vs (m/s):118, 168, 169, 290, 185, 239, 324, 381, 426, 659, 625
 Thickness (m):0.3, 0.5, 1.3, 1.2, 2.1, 1.9, 4.7, 10.8, 12.7, 57.1

Density (gr/cm3) (approximate values):1.701.811.841.961.781.931.921.981.972.082.05
 Seismic/Dynamic Shear modulus (MPa) (approximate values):24515216561110202288357905801

Approximate values for Vp and Poisson
 Vp (m/s):2353694096713275965847417061134985
 Poisson:0.330.370.400.390.260.400.280.320.210.250.16

Vs30 (m/s): 310



1 ESAC 12 Stendimento di sismica passiva ESAC

SPETTRO DI VELOCITA' ESAC E CURVA DI DISPERSIONE EFFETTIVA

x (m):

y (m):

channels to remove:

first dataset: esac15#1.DAT
sampling: 8 ms

velocity spectrum: min freq: max freq:
min vel: max vel:

FK parameters: wavenumbers
 window length (s)

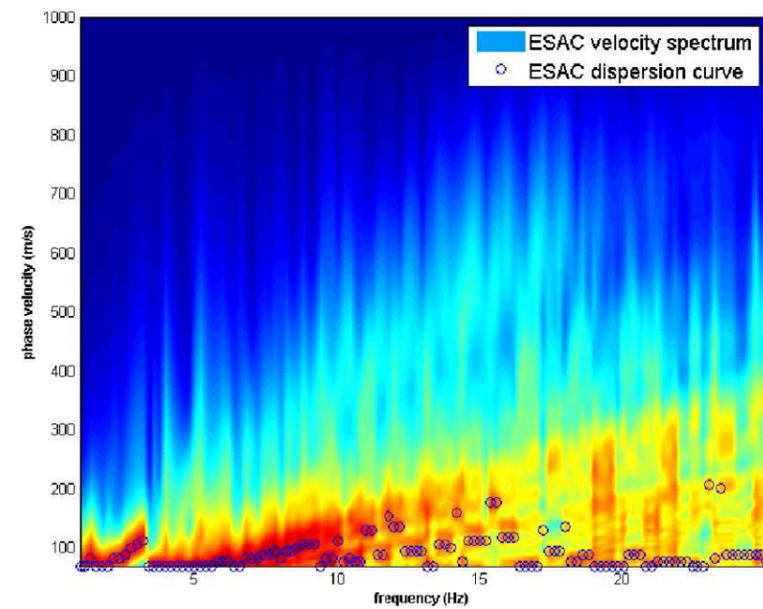
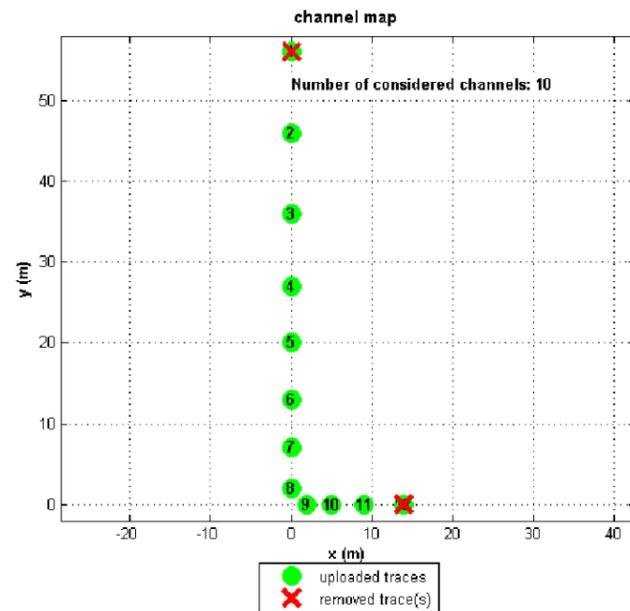
ESAC parameters: window length (s)

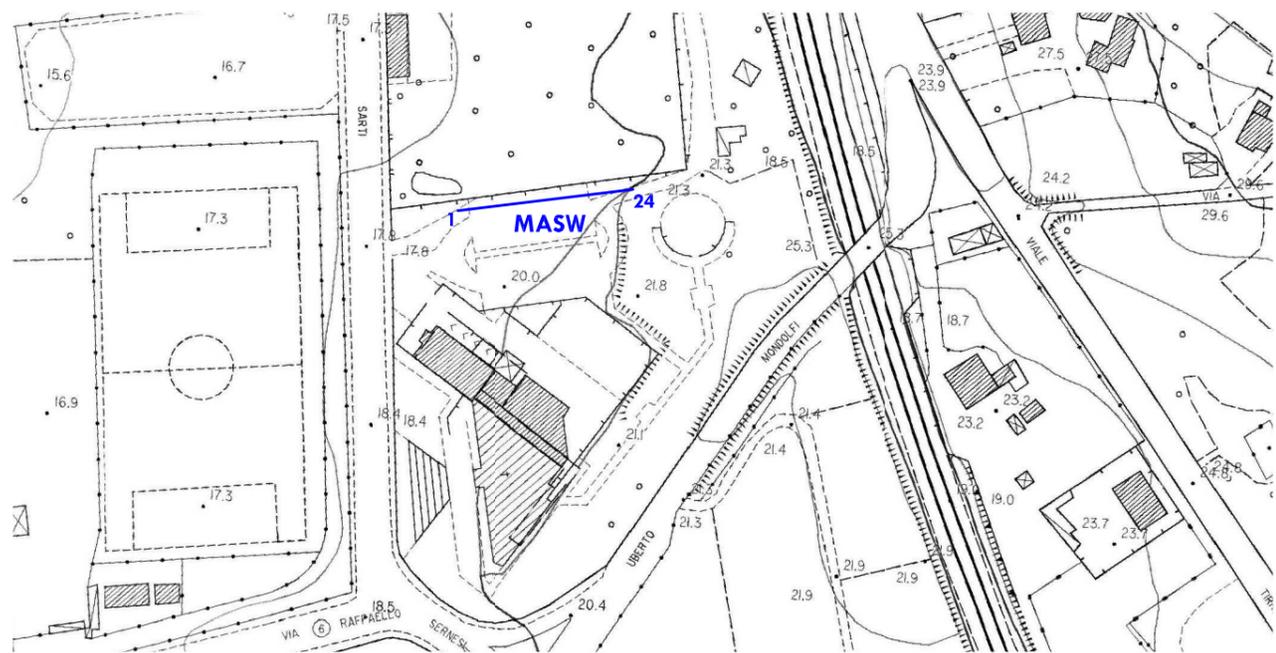
4% spectral smoothing

resample to 6ms (166.666Hz)

hold on verbose f-k analysis

Stendimento ESAC15



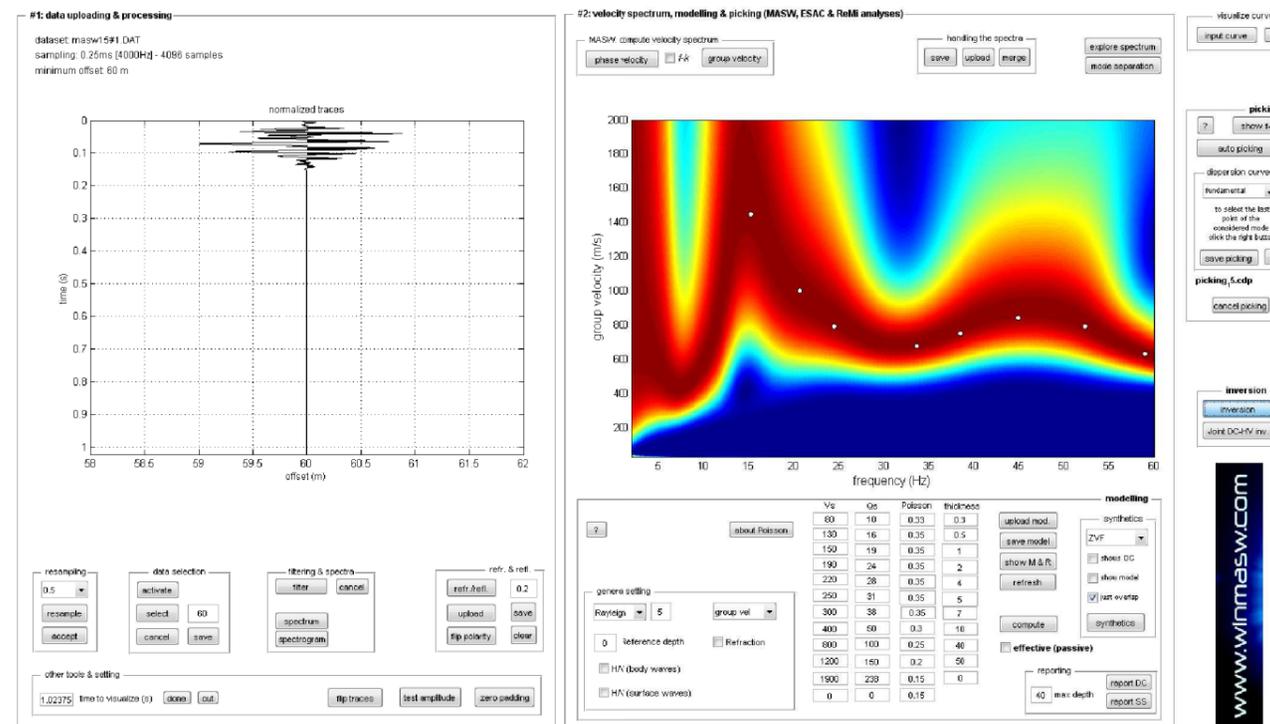


1 MASW 24 Stendimento di sismica attiva MASW

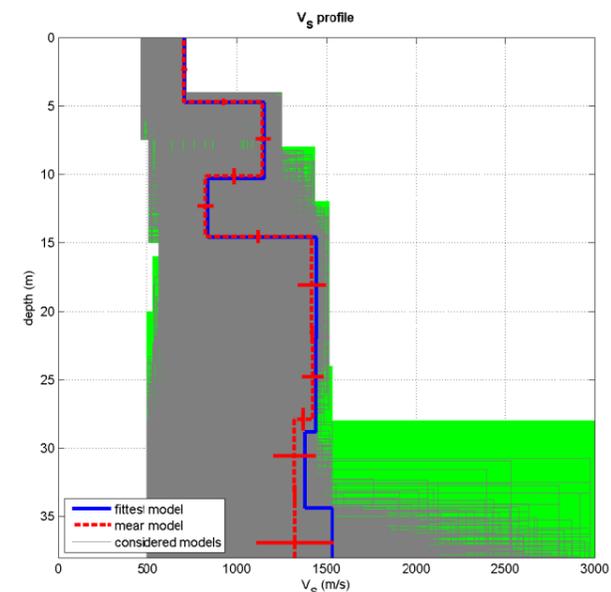
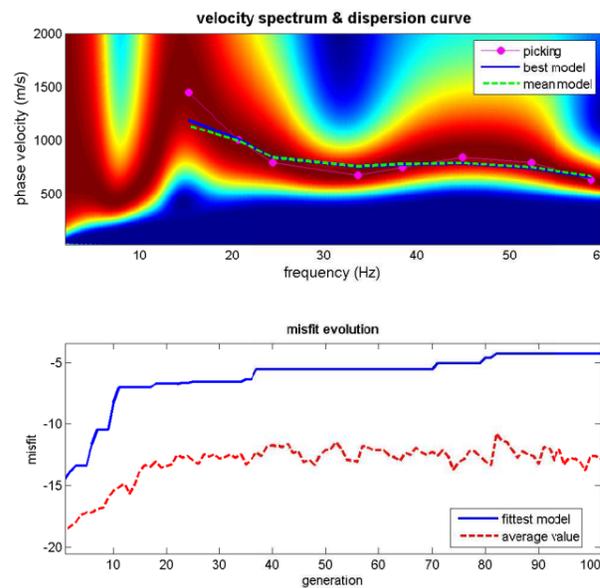
Stendimento MASW15



SPETTRO DI VELOCITA' MASW + CURVA DI DISPERSIONE EFFETTIVA ESAC



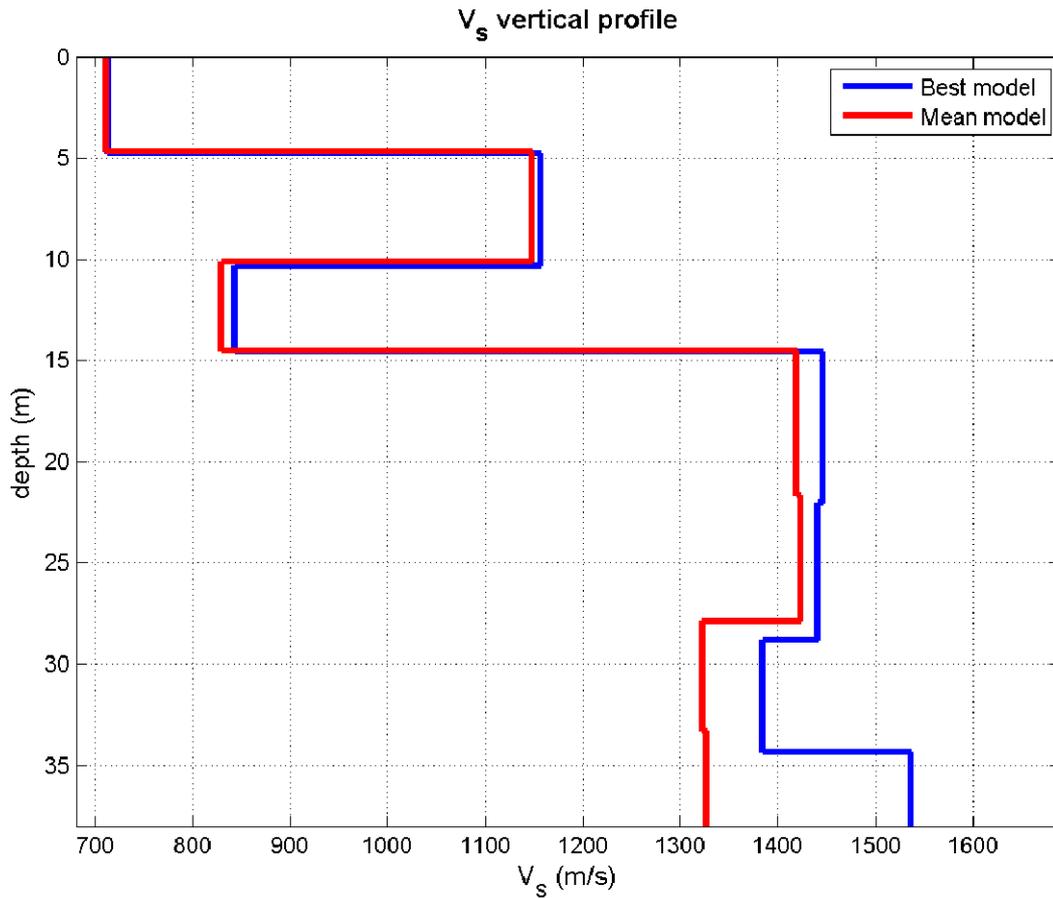
INVERSIONE CONGIUNTA MASW - ESAC E PROFILO DI VELOCITA'



dataset: masw15#1.DAT
 dispersion curve: picking_5.cdp
 Vs30 (best model): 1101 m/s
 Vs30 (mean model): 1085 m/s

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PROFILO DI VELOCITA' MASW 15 – ESAC 15

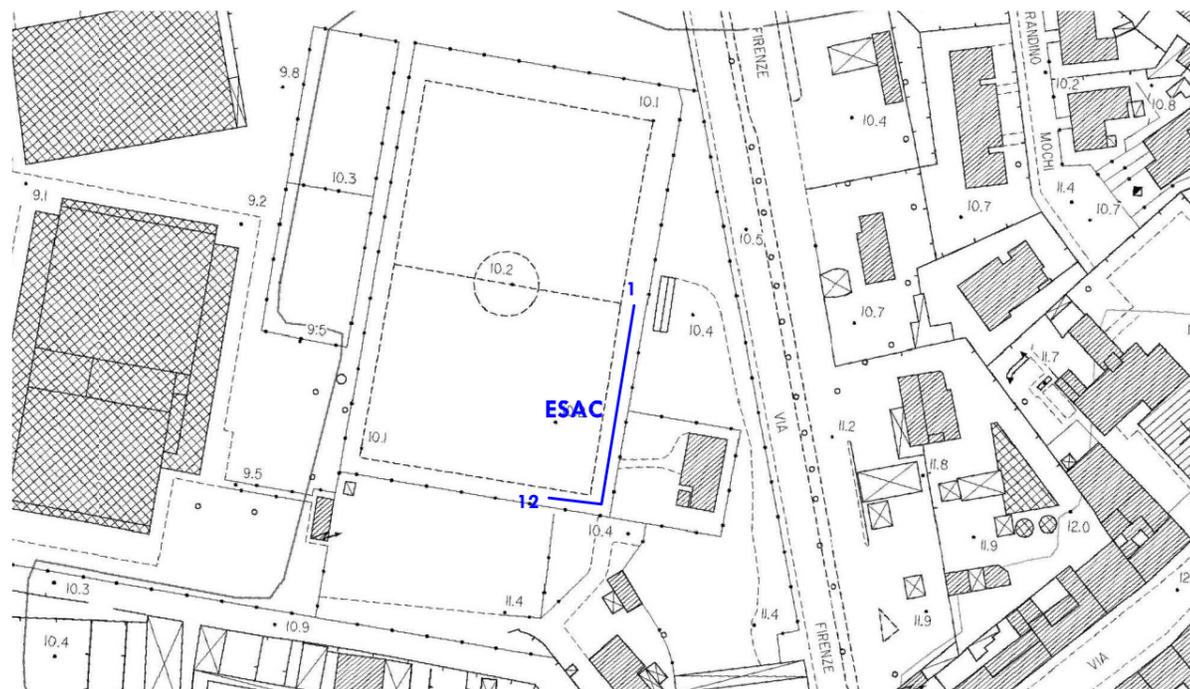


V_s (m/s): 711, 1148, 829, 1419, 1424, 1323, 1327, 1130
 Thickness (m): 4.7, 5.4, 4.4, 7.2, 6.2, 5.4, 7.3

Density (gr/cm³) (approximate values): 2.232.272.222.352.322.252.322.24
 Seismic/Dynamic Shear modulus (MPa) (approximate values): 11292987152847334710393440912858

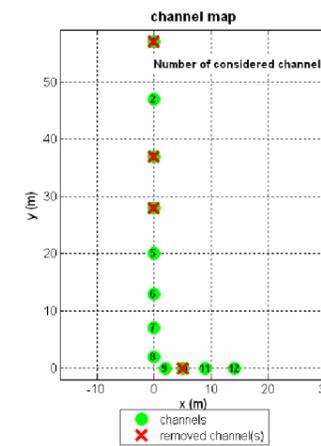
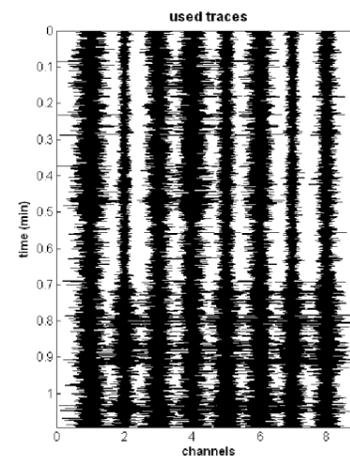
Approximate values for V_p and Poisson
 V_p (m/s): 20882397200833793017221530192134
 Poisson: 0.430.350.400.390.360.220.380.31

V_{s30} (m/s): 1085

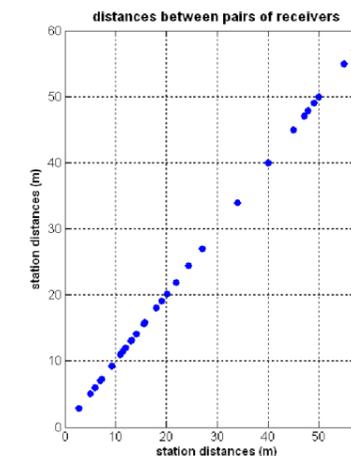


1 ESAC 12 Stendimento di sismica passiva ESAC

ACQUISIZIONE ESAC



MASW_ESAC16_MS2



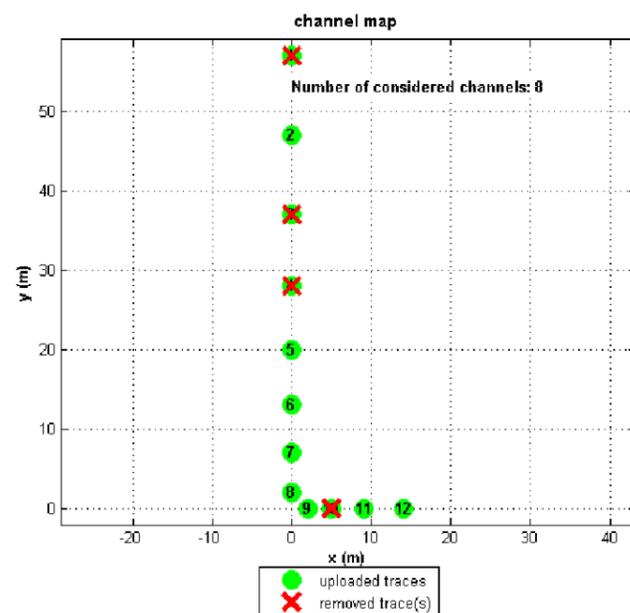
SPETTRO DI VELOCITA' ESAC E CURVA DI DISPERSIONE EFFETTIVA

x (m): dataset: esac16#1.DAT
 y (m): sampling: 8 ms
 channels to remove:

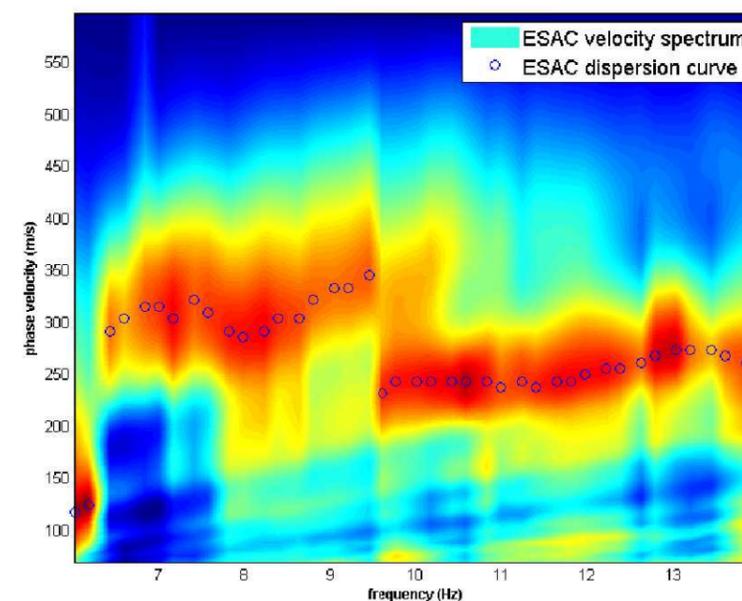
velocity spectrum: min freq: max freq:
 min vel: max vel:
 4% spectral smoothing

FK parameters: wavenumbers
 window length (s)
 ESAC parameters: window length (s)

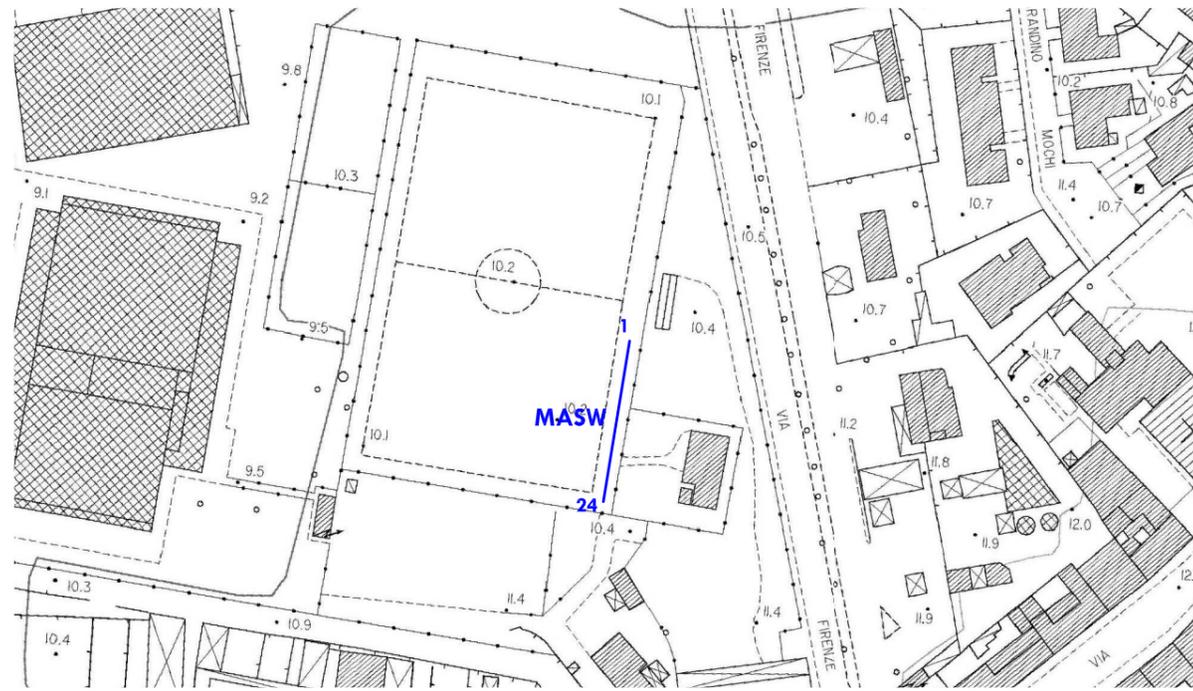
Stendimento ESAC16



resample to 6ms (166.666Hz)

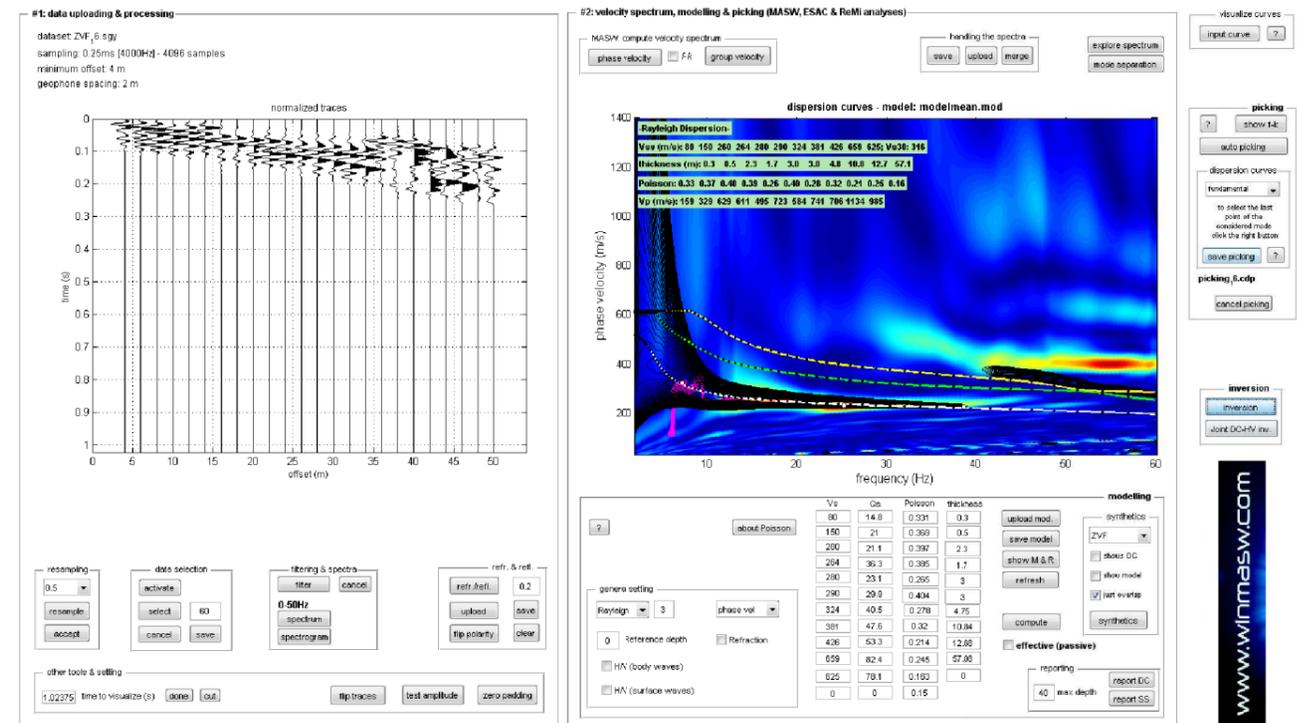


hold on verbose
 f-k analysis



1 **MASW** 24 Stendimento di sismica attiva MASW

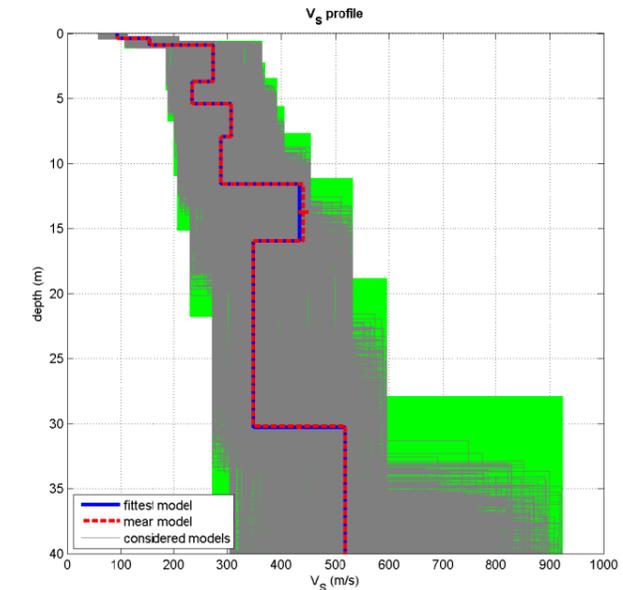
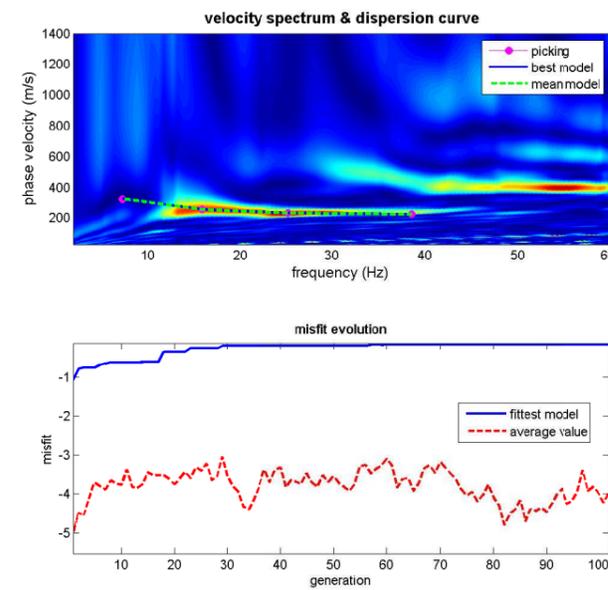
SPETTRO DI VELOCITA' MASW + CURVA DI DISPERSIONE EFFETTIVA ESAC



Stendimento MASW16



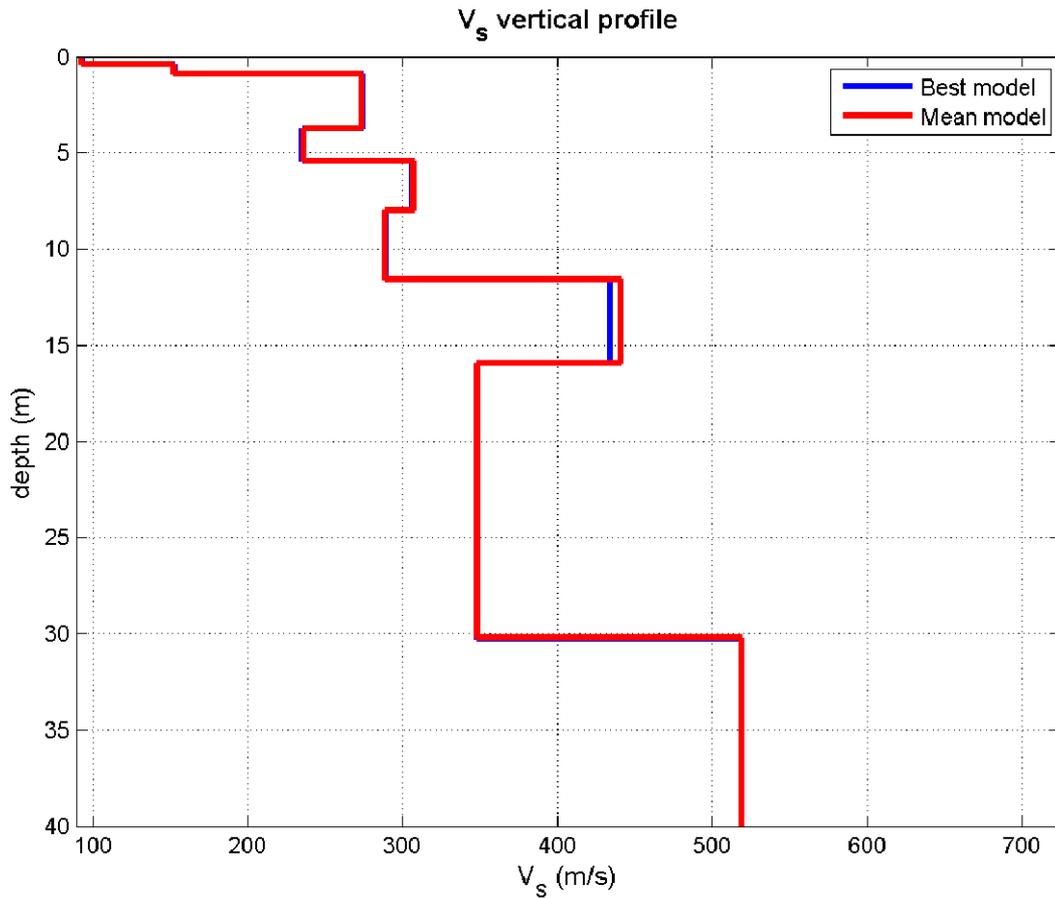
INVERSIONE CONGIUNTA MASW – ESAC E PROFILO DI VELOCITA'



dataset: ZVF_6.sgy
 dispersion curve: picking_6.cdp
 Vs30 (best model): 312 m/s
 Vs30 (mean model): 312 m/s

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PROFILO DI VELOCITA' MASW 16 – ESAC 16



Vs (m/s):93, 152, 274, 236, 307, 289, 441, 348, 519, 659, 863
 Thickness (m):0.4, 0.5, 2.8, 1.7, 2.5, 3.6, 4.4, 14.3, 17.4, 74.9

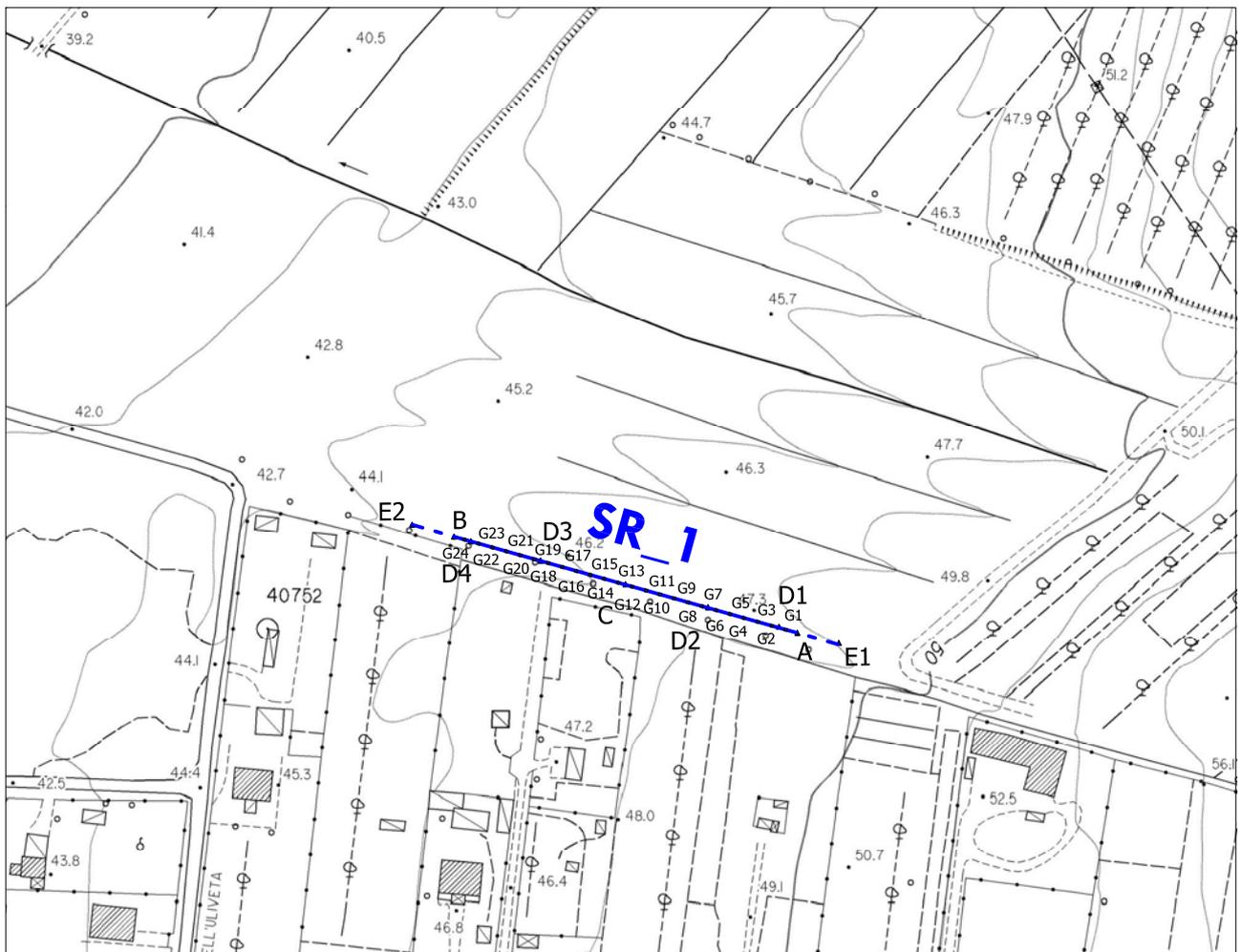
Density (gr/cm3) (approximate values):1.631.901.911.851.952.002.031.962.052.092.13
 Seismic/Dynamic Shear modulus (MPa) (approximate values):14441441031841673962375519071588

Approximate values for Vp and Poisson
 Vp (m/s):17453356042764678792166996911541382
 Poisson:0.300.460.340.280.350.420.350.310.300.260.18

Vs30 (m/s): 312

ALLEGATO 3

REPORT DEGLI STENDIMENTI DI SISMICA A RIFRAZIONE



PROSPEZIONE SISMICA A RIFRAZIONE (SR_1) CON ONDE P E SH

Scala 1:2.000

• G1 POSIZIONE GEOFONO

E ^ TIRI ESTERNI

A e B ^ TIRI ESTREMI

C ^ TIRO CENTRALE

D1-D2 ^ TIRI INTERMEDI SINISTRI

D3-D4 ^ TIRI INTERMEDI DESTRI

SR_1

LINEA SISMICA SR_1



Linea sismica a rifrazione SR_1

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|-------|-------|-------|------|-------|-------|-------|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Geofoni | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| Distanza Progressiva (m) | 0 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 | 44 | 48 | 52 | 56 | 60 | 64 | 68 | 72 | 76 | 80 | 84 | 88 | 92 |
| Distanza Parziale (m) | 0 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Quota (m slm) | 47.54 | 57.46 | 47.38 | 47.3 | 47.22 | 47.14 | 47.08 | 47 | 46.92 | 46.84 | 46.75 | 46.68 | 46.61 | 46.54 | 46.49 | 46.44 | 46.39 | 46.34 | 46.29 | 46.24 | 46.19 | 46.14 | 46.09 | 46.04 |

Linea sismica SR_1

Coordinate Gauss Boaga

Geofono N.1 (G1)

Geofono N.24 (G24)

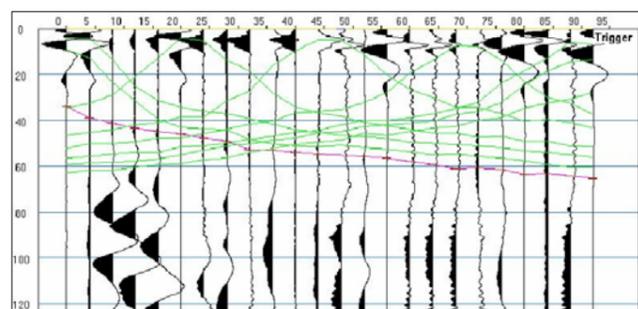
| | | |
|-------|---------|---------|
| X (m) | 609926 | 609772 |
| Y (m) | 4822517 | 4822563 |

Punti di energizzazione linea sismica SR_1

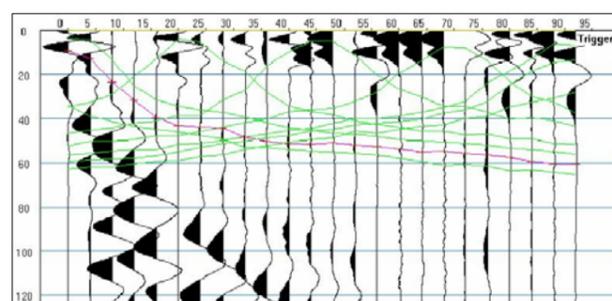
| | E1 Esterno Sx | A Estremo Sx | D1 Intermedio Sx | D2 Intermedio Sx | C Centrale | D3 Intermedio Dx | D4 Intermedio Dx | B Estremo Dx | E2 Esterno Dx |
|--------------------------|---------------|--------------|------------------|------------------|------------|------------------|------------------|--------------|---------------|
| Onde P | p1 | p2 | p3 | p4 | p5 | p6 | p7 | p8 | p9 |
| Onde SH | sh1 | sh2 | sh3 | sh4 | sh5 | sh6 | sh7 | sh8 | sh9 |
| Posiz. dal geof. N.1 (m) | -15 | 4 | 2 | 22 | 46 | 70 | 90 | 96 | 107 |
| Quota (m slm) | 47.9 | 47.6 | 47.5 | 47.11 | 46.65 | 46.32 | 46.07 | 45.7 | 45.5 |

LINEA SISMICA SR_1 REGISTRAZIONI DI CAMPAGNA DELLE ONDE P

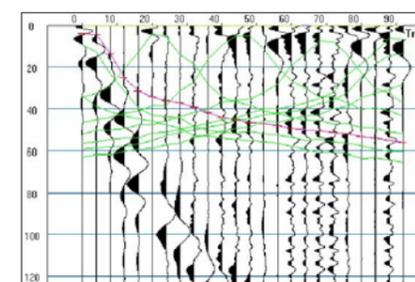
TIRO ESTERNO SINISTRO E1



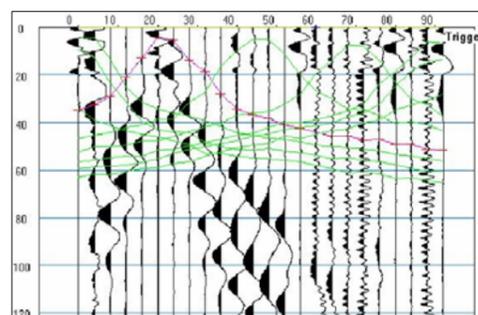
TIRO ESTREMO SINISTRO A



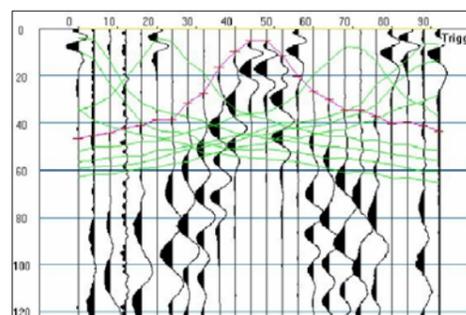
TIRO INTERMEDIO D1



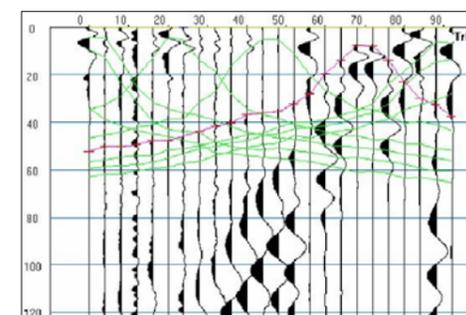
TIRO INTERMEDIO D2



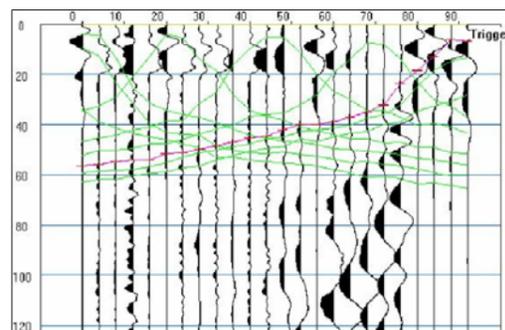
TIRO CENTRALE C



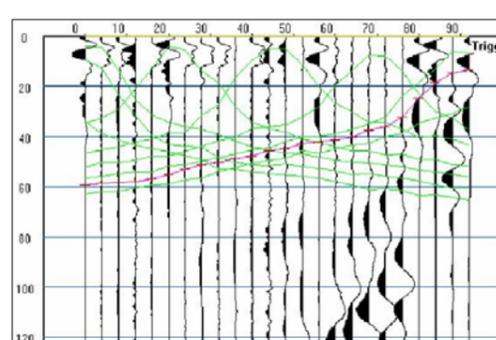
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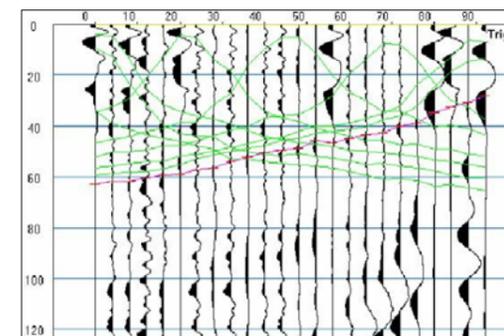
TIRO INTERMEDIO D4



TIRO ESTREMO DESTRO B

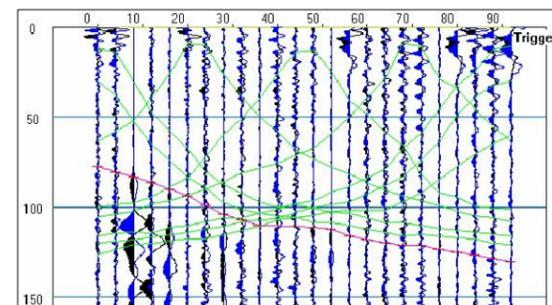


TIRO ESTERNO DESTRO E2

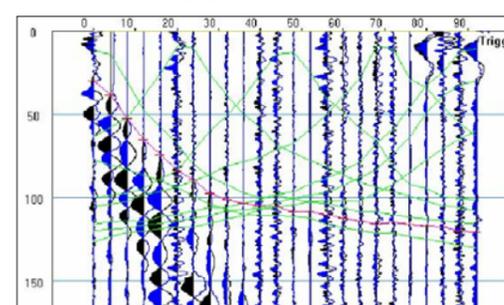


LINEA SISMICA SR_1 REGISTRAZIONI DI CAMPAGNA DELLE ONDE SH

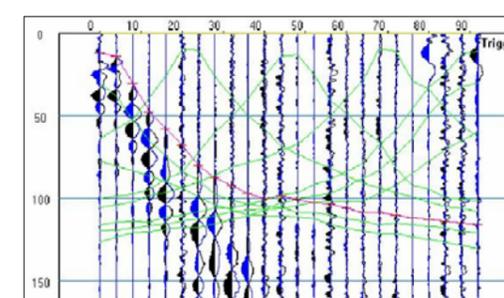
TIRO ESTERNO SINISTRO E1



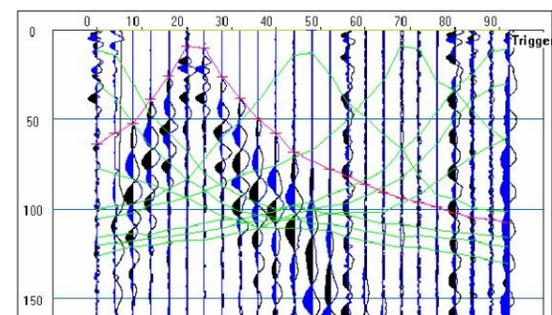
TIRO ESTREMO SINISTRO A



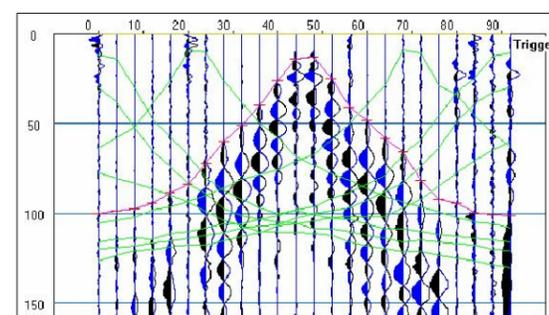
TIRO INTERMEDIO D1



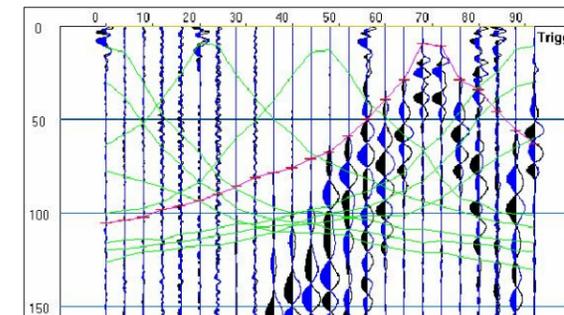
TIRO INTERMEDIO D2



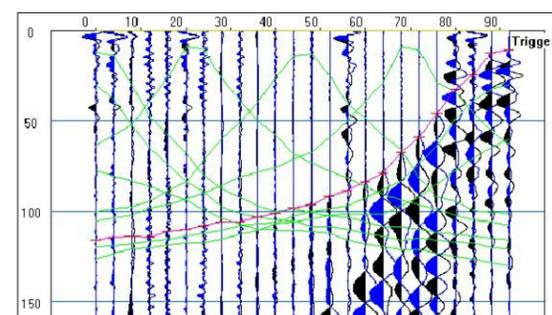
TIRO CENTRALE C



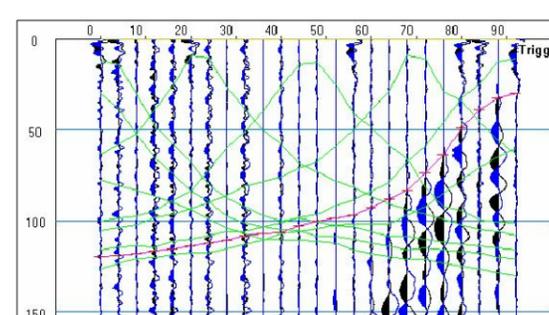
TIRO INTERMEDIO D3



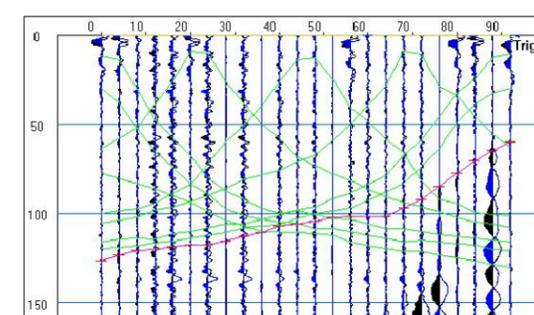
TIRO INTERMEDIO D4



TIRO ESTREMO DESTRO B



TIRO ESTERNO DESTRO E2



LINEA SISMICA SR_1

TEMPI DI PROPAGAZIONE DELLE ONDE P

| SP | Elev | X-loc | Y-Loc | Depth |
|----|------|--------|-------|-------|
| 1 | 0.00 | -15.00 | 0.00 | 0.00 |
| 2 | 0.00 | -4.00 | 0.00 | 0.00 |
| 3 | 1.46 | 2.00 | 0.00 | 0.00 |
| 4 | 1.07 | 22.00 | 0.00 | 0.00 |
| 5 | 0.60 | 46.00 | 0.00 | 0.00 |
| 6 | 0.28 | 70.00 | 0.00 | 0.00 |
| 7 | 0.03 | 90.00 | 0.00 | 0.00 |
| 8 | 0.00 | 96.00 | 0.00 | 0.00 |
| 9 | 0.00 | 107.00 | 0.00 | 0.00 |

| Geo | Elev | X-loc | Y-Loc | SP 1 | SP 2 | SP 3 | SP 4 | SP 5 | SP 6 | SP 7 | SP 8 | SP 9 |
|-----|------|-------|-------|------|--------|---------|----------|----------|----------|----------|--------|--------|
| 1 | 1.50 | 0.00 | 0.00 | 0.00 | 1 0.00 | 1 5.61 | 1 35.33 | 1 145.32 | 1 152.64 | 1 158.01 | 1 0.00 | 1 0.00 |
| 2 | 1.42 | 4.00 | 0.00 | 0.00 | 1 0.00 | 1 5.61 | 1 32.86 | 1 144.11 | 1 151.44 | 1 156.81 | 1 0.00 | 1 0.00 |
| 3 | 1.34 | 8.00 | 0.00 | 0.00 | 1 0.00 | 1 15.18 | 1 127.97 | 1 143.21 | 1 150.54 | 1 155.91 | 1 0.00 | 1 0.00 |
| 4 | 1.26 | 12.00 | 0.00 | 0.00 | 1 0.00 | 1 23.64 | 1 121.37 | 1 142.14 | 1 149.46 | 1 154.84 | 1 0.00 | 1 0.00 |
| 5 | 1.18 | 16.00 | 0.00 | 0.00 | 1 0.00 | 1 29.46 | 1 115.04 | 1 140.62 | 1 148.01 | 1 153.38 | 1 0.00 | 1 0.00 |
| 6 | 1.10 | 20.00 | 0.00 | 0.00 | 1 0.00 | 1 32.76 | 1 116.44 | 1 138.47 | 1 146.76 | 1 152.13 | 1 0.00 | 1 0.00 |
| 7 | 1.04 | 24.00 | 0.00 | 0.00 | 1 0.00 | 1 35.49 | 1 116.44 | 1 136.06 | 1 145.65 | 1 151.02 | 1 0.00 | 1 0.00 |
| 8 | 0.96 | 28.00 | 0.00 | 0.00 | 1 0.00 | 1 37.76 | 1 114.86 | 1 130.72 | 1 144.50 | 1 149.87 | 1 0.00 | 1 0.00 |
| 9 | 0.88 | 32.00 | 0.00 | 0.00 | 1 0.00 | 1 39.86 | 1 120.63 | 1 124.76 | 1 143.13 | 1 148.61 | 1 0.00 | 1 0.00 |
| 10 | 0.80 | 36.00 | 0.00 | 0.00 | 1 0.00 | 1 41.56 | 1 126.36 | 1 118.22 | 1 141.40 | 1 146.88 | 1 0.00 | 1 0.00 |
| 11 | 0.71 | 40.00 | 0.00 | 0.00 | 1 0.00 | 1 42.92 | 1 131.53 | 1 111.91 | 1 139.16 | 1 145.08 | 1 0.00 | 1 0.00 |
| 12 | 0.64 | 44.00 | 0.00 | 0.00 | 1 0.00 | 1 44.13 | 1 135.95 | 1 116.43 | 1 136.86 | 1 143.26 | 1 0.00 | 1 0.00 |
| 13 | 0.57 | 48.00 | 0.00 | 0.00 | 1 0.00 | 1 45.25 | 1 138.48 | 1 116.49 | 1 134.81 | 1 141.45 | 1 0.00 | 1 0.00 |
| 14 | 0.50 | 52.00 | 0.00 | 0.00 | 1 0.00 | 1 46.56 | 1 140.72 | 1 112.66 | 1 131.72 | 1 140.17 | 1 0.00 | 1 0.00 |
| 15 | 0.45 | 56.00 | 0.00 | 0.00 | 1 0.00 | 1 48.15 | 1 142.33 | 1 119.26 | 1 126.72 | 1 139.28 | 1 0.00 | 1 0.00 |
| 16 | 0.40 | 60.00 | 0.00 | 0.00 | 1 0.00 | 1 49.53 | 1 143.70 | 1 125.26 | 1 121.10 | 1 137.95 | 1 0.00 | 1 0.00 |
| 17 | 0.35 | 64.00 | 0.00 | 0.00 | 1 0.00 | 1 50.41 | 1 144.59 | 1 130.64 | 1 115.33 | 1 136.07 | 1 0.00 | 1 0.00 |
| 18 | 0.30 | 68.00 | 0.00 | 0.00 | 1 0.00 | 1 51.28 | 1 145.46 | 1 134.68 | 1 117.94 | 1 134.07 | 1 0.00 | 1 0.00 |
| 19 | 0.25 | 72.00 | 0.00 | 0.00 | 1 0.00 | 1 52.45 | 1 146.63 | 1 136.49 | 1 117.81 | 1 131.00 | 1 0.00 | 1 0.00 |
| 20 | 0.20 | 76.00 | 0.00 | 0.00 | 1 0.00 | 1 53.61 | 1 147.79 | 1 138.06 | 1 114.93 | 1 125.17 | 1 0.00 | 1 0.00 |
| 21 | 0.15 | 80.00 | 0.00 | 0.00 | 1 0.00 | 1 54.66 | 1 148.84 | 1 139.64 | 1 121.65 | 1 119.55 | 1 0.00 | 1 0.00 |
| 22 | 0.10 | 84.00 | 0.00 | 0.00 | 1 0.00 | 1 55.70 | 1 149.87 | 1 140.69 | 1 127.13 | 1 114.39 | 1 0.00 | 1 0.00 |
| 23 | 0.05 | 88.00 | 0.00 | 0.00 | 1 0.00 | 1 56.78 | 1 150.95 | 1 141.78 | 1 131.25 | 1 117.07 | 1 0.00 | 1 0.00 |
| 24 | 0.00 | 92.00 | 0.00 | 0.00 | 1 0.00 | 1 58.02 | 1 152.19 | 1 143.02 | 1 134.16 | 1 117.07 | 1 0.00 | 1 0.00 |

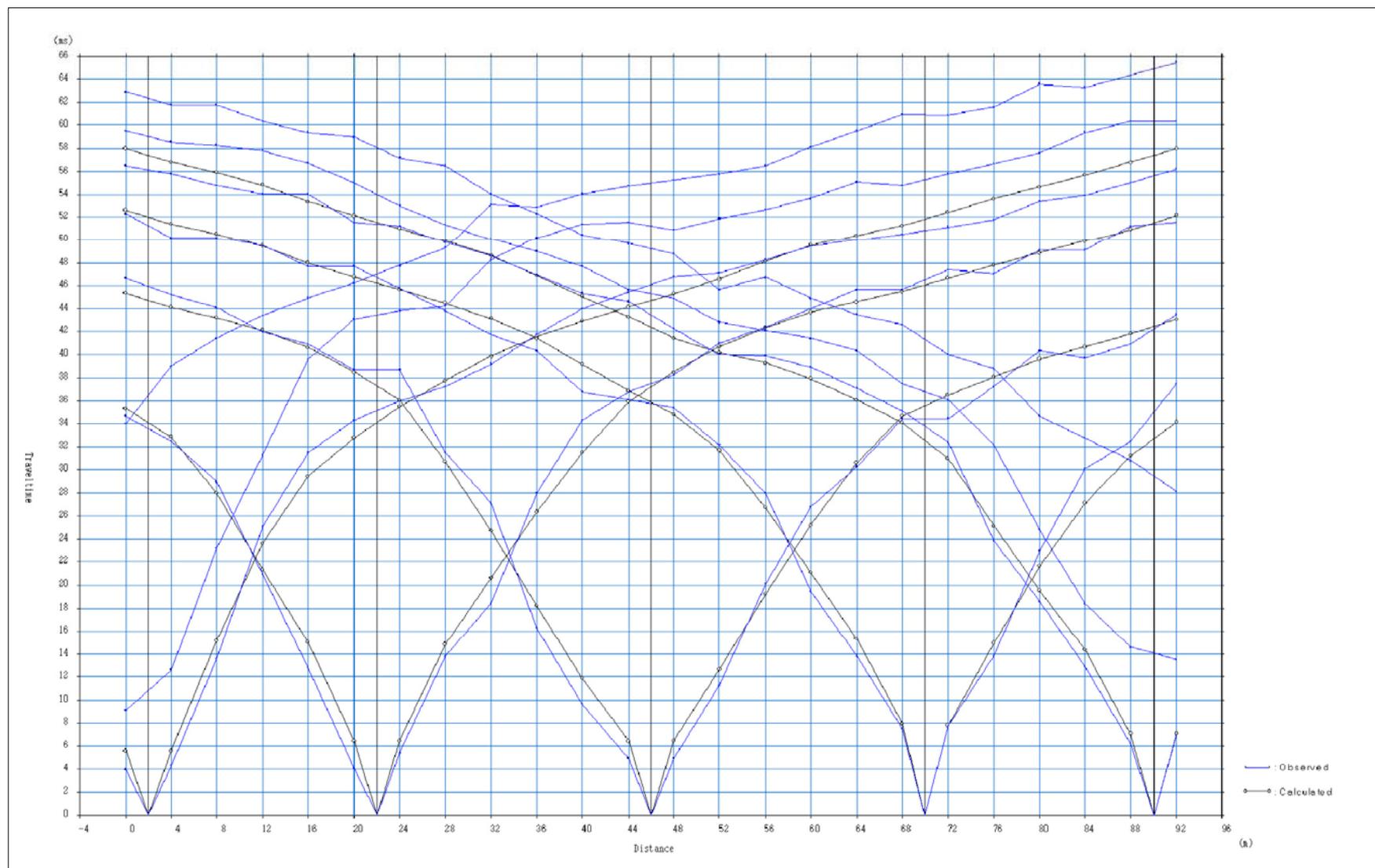
LINEA SISMICA SR_1

TEMPI DI PROPAGAZIONE DELLE ONDE SH

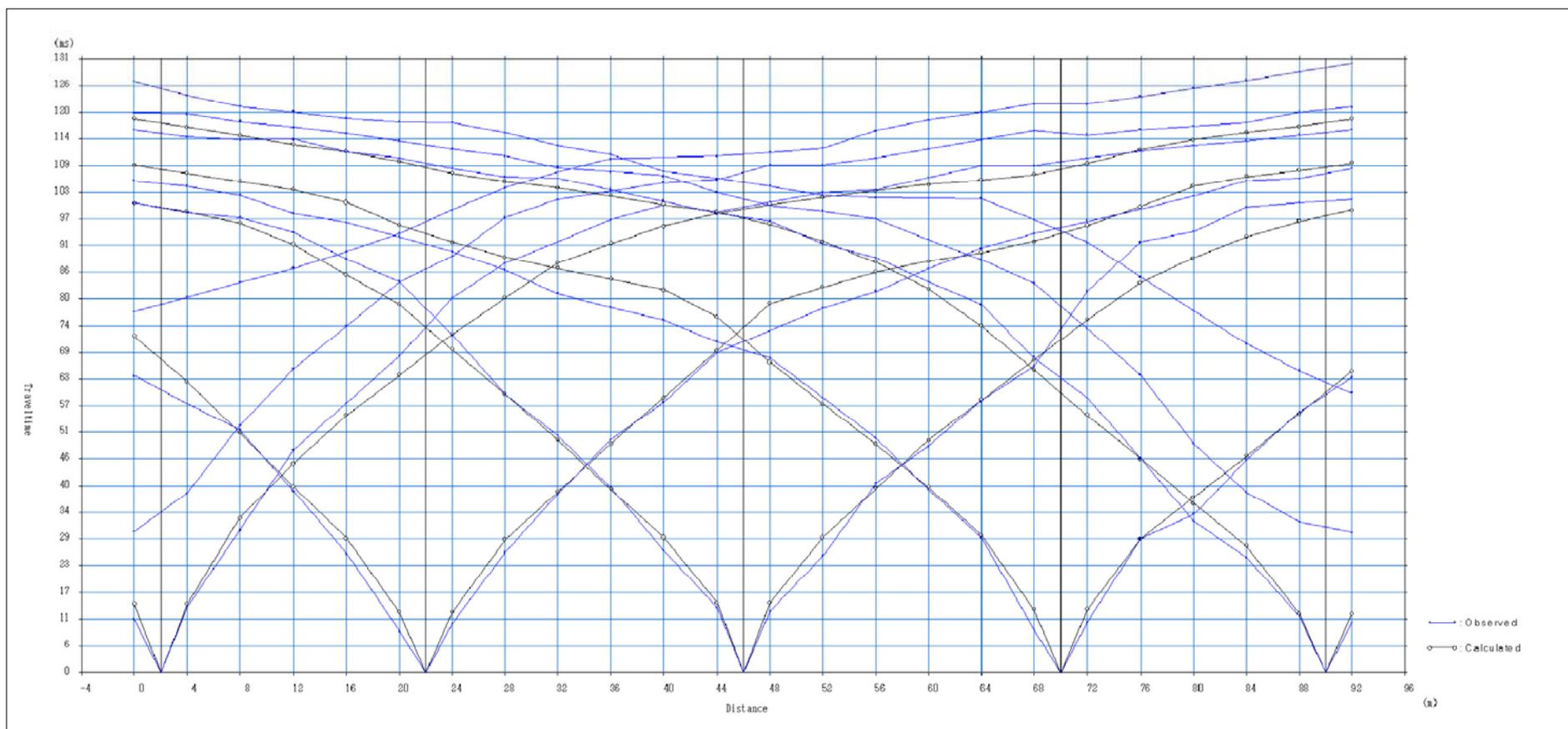
| SP | Elev | X-loc | Y-Loc | Depth |
|----|------|--------|-------|-------|
| 1 | 0.00 | -15.00 | 0.00 | 0.00 |
| 2 | 0.00 | -4.00 | 0.00 | 0.00 |
| 3 | 1.46 | 2.00 | 0.00 | 0.00 |
| 4 | 1.07 | 22.00 | 0.00 | 0.00 |
| 5 | 0.60 | 46.00 | 0.00 | 0.00 |
| 6 | 0.28 | 70.00 | 0.00 | 0.00 |
| 7 | 0.03 | 90.00 | 0.00 | 0.00 |
| 8 | 0.00 | 96.00 | 0.00 | 0.00 |
| 9 | 0.00 | 107.00 | 0.00 | 0.00 |

| Geo | Elev | X-loc | Y-Loc | SP 1 | SP 2 | SP 3 | SP 4 | SP 5 | SP 6 | SP 7 | SP 8 | SP 9 | |
|-----|------|-------|-------|------|--------|----------|---------|---------|---------|---------|--------|--------|---|
| 1 | 1.50 | 0.00 | 0.00 | 0.00 | 1 0.00 | 1 14.61 | 172.11 | 1100.58 | 1108.66 | 1118.38 | 10.00 | 10.00 | 1 |
| 2 | 1.42 | 4.00 | 0.00 | 0.00 | 1 0.00 | 1 14.61 | 162.32 | 198.58 | 1107.00 | 1116.72 | 10.00 | 1 0.00 | 1 |
| 3 | 1.34 | 8.00 | 0.00 | 0.00 | 1 0.00 | 1 33.10 | 151.31 | 196.24 | 1105.17 | 1114.89 | 10.00 | 1 0.00 | 1 |
| 4 | 1.26 | 12.00 | 0.00 | 0.00 | 1 0.00 | 1 44.75 | 139.82 | 191.67 | 1103.43 | 1113.15 | 10.00 | 1 0.00 | 1 |
| 5 | 1.18 | 16.00 | 0.00 | 0.00 | 1 0.00 | 1 55.06 | 128.76 | 185.02 | 1100.67 | 1111.52 | 10.00 | 1 0.00 | 1 |
| 6 | 1.10 | 20.00 | 0.00 | 0.00 | 1 0.00 | 1 63.71 | 112.91 | 178.77 | 195.80 | 1109.52 | 10.00 | 1 0.00 | 1 |
| 7 | 1.04 | 24.00 | 0.00 | 0.00 | 1 0.00 | 1 72.46 | 112.91 | 169.26 | 192.08 | 1107.05 | 10.00 | 1 0.00 | 1 |
| 8 | 0.96 | 28.00 | 0.00 | 0.00 | 1 0.00 | 1 80.18 | 128.56 | 159.66 | 188.94 | 1105.16 | 10.00 | 1 0.00 | 1 |
| 9 | 0.88 | 32.00 | 0.00 | 0.00 | 1 0.00 | 1 87.66 | 138.80 | 149.77 | 186.52 | 1103.76 | 10.00 | 1 0.00 | 1 |
| 10 | 0.80 | 36.00 | 0.00 | 0.00 | 1 0.00 | 1 91.85 | 148.92 | 139.39 | 184.15 | 1102.07 | 10.00 | 1 0.00 | 1 |
| 11 | 0.71 | 40.00 | 0.00 | 0.00 | 1 0.00 | 1 95.48 | 158.91 | 128.96 | 181.83 | 1100.24 | 10.00 | 1 0.00 | 1 |
| 12 | 0.64 | 44.00 | 0.00 | 0.00 | 1 0.00 | 1 98.18 | 168.95 | 114.97 | 176.16 | 198.62 | 10.00 | 1 0.00 | 1 |
| 13 | 0.57 | 48.00 | 0.00 | 0.00 | 1 0.00 | 1 100.23 | 179.08 | 114.97 | 166.43 | 196.03 | 10.00 | 1 0.00 | 1 |
| 14 | 0.50 | 52.00 | 0.00 | 0.00 | 1 0.00 | 1 101.77 | 182.49 | 129.00 | 157.51 | 192.26 | 10.00 | 1 0.00 | 1 |
| 15 | 0.45 | 56.00 | 0.00 | 0.00 | 1 0.00 | 1 103.16 | 185.63 | 139.57 | 148.89 | 187.85 | 10.00 | 1 0.00 | 1 |
| 16 | 0.40 | 60.00 | 0.00 | 0.00 | 1 0.00 | 1 104.49 | 187.94 | 149.73 | 139.77 | 182.08 | 10.00 | 1 0.00 | 1 |
| 17 | 0.35 | 64.00 | 0.00 | 0.00 | 1 0.00 | 1 105.42 | 189.85 | 158.42 | 129.37 | 174.36 | 10.00 | 1 0.00 | 1 |
| 18 | 0.30 | 68.00 | 0.00 | 0.00 | 1 0.00 | 1 106.71 | 192.28 | 166.95 | 113.51 | 164.84 | 10.00 | 1 0.00 | 1 |
| 19 | 0.25 | 72.00 | 0.00 | 0.00 | 1 0.00 | 1 109.04 | 195.64 | 175.62 | 113.51 | 155.19 | 10.00 | 1 0.00 | 1 |
| 20 | 0.20 | 76.00 | 0.00 | 0.00 | 1 0.00 | 1 111.88 | 199.68 | 183.37 | 128.65 | 145.69 | 10.00 | 1 0.00 | 1 |
| 21 | 0.15 | 80.00 | 0.00 | 0.00 | 1 0.00 | 1 114.04 | 1104.11 | 188.73 | 137.60 | 136.27 | 1 0.00 | 1 0.00 | 1 |
| 22 | 0.10 | 84.00 | 0.00 | 0.00 | 1 0.00 | 1 115.56 | 1106.32 | 193.37 | 146.41 | 127.18 | 1 0.00 | 1 0.00 | 1 |
| 23 | 0.05 | 88.00 | 0.00 | 0.00 | 1 0.00 | 1 116.83 | 1107.60 | 196.63 | 155.40 | 112.58 | 1 0.00 | 1 0.00 | 1 |
| 24 | 0.00 | 92.00 | 0.00 | 0.00 | 1 0.00 | 1 118.39 | 1109.15 | 198.96 | 164.50 | 112.58 | 1 0.00 | 1 0.00 | 1 |

LINEA SISMICA SR_1 DROMOCRONE DELLE ONDE P



LINEA SISMICA SR_1 DROMOCRONE DELLE ONDE SH



LINEA SISMICA SR_1
VELOCITA' SISMICHE DEI RIFRATTORI INDIVIDUATI

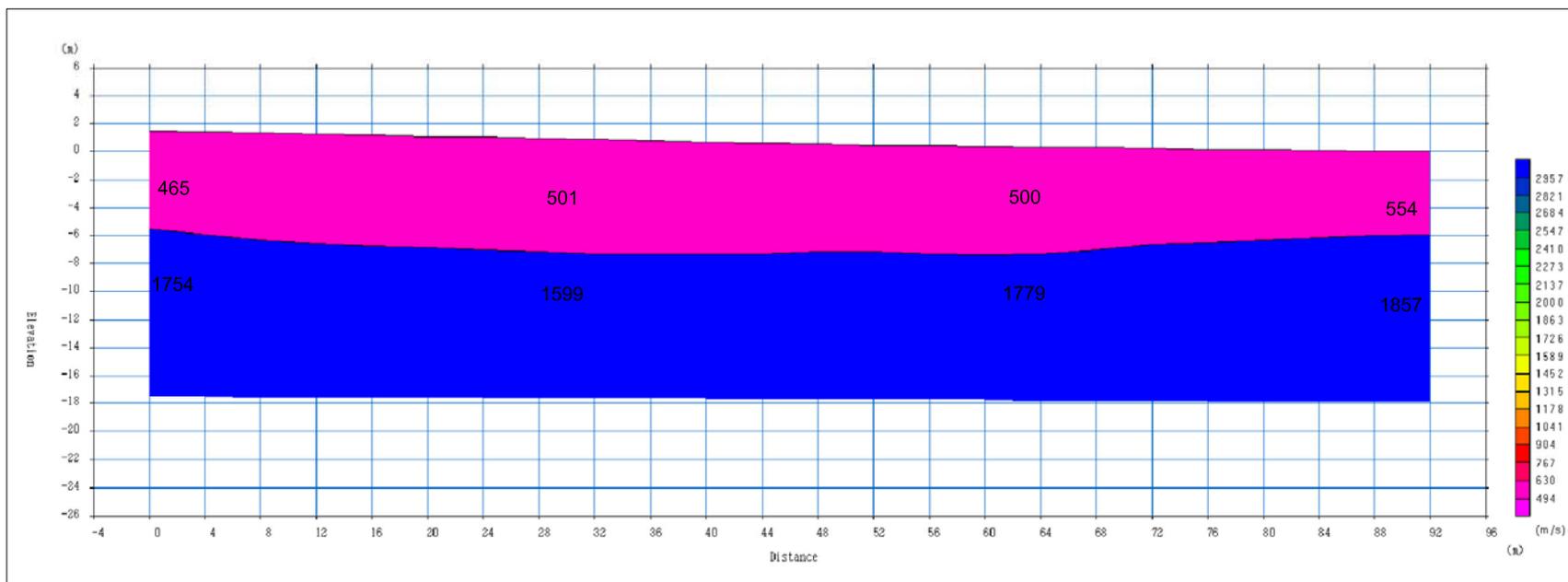
Onde P

| | | Strato 1 | Strato 2 |
|---------|-------|------------|------------|
| Geofono | x (m) | Vs (m/sec) | Vs (m/sec) |
| 1 | 0 | 473.75 | 1758.36 |
| 2 | 4 | 455.86 | 1748.71 |
| 3 | 8 | 443.17 | 1736.72 |
| 4 | 12 | 466.50 | 1722.79 |
| 5 | 16 | 505.59 | 1701.67 |
| 6 | 20 | 521.43 | 1673.27 |
| 7 | 24 | 513.76 | 1643.93 |
| 8 | 28 | 499.49 | 1620.75 |
| 9 | 32 | 502.97 | 1603.16 |
| 10 | 36 | 547.33 | 1594.67 |
| 11 | 40 | 598.08 | 1605.88 |
| 12 | 44 | 605.00 | 1636.73 |
| 13 | 48 | 565.65 | 1676.06 |
| 14 | 52 | 509.95 | 1711.78 |
| 15 | 56 | 482.09 | 1737.94 |
| 16 | 60 | 492.78 | 1758.53 |
| 17 | 64 | 506.24 | 1776.13 |
| 18 | 68 | 499.50 | 1782.57 |
| 19 | 72 | 488.40 | 1781.86 |
| 20 | 76 | 493.64 | 1794.18 |
| 21 | 80 | 518.52 | 1819.43 |
| 22 | 84 | 545.54 | 1842.75 |
| 23 | 88 | 554.72 | 1854.60 |
| 24 | 92 | 552.97 | 1858.66 |

Onde SH

| | | Strato 1 | Strato 2 |
|---------|-------|------------|------------|
| Geofono | x (m) | Vs (m/sec) | Vs (m/sec) |
| 1 | 0 | 231.33 | 896.23 |
| 2 | 4 | 232.23 | 890.44 |
| 3 | 8 | 235.40 | 878.96 |
| 4 | 12 | 249.36 | 857.69 |
| 5 | 16 | 268.91 | 834.46 |
| 6 | 20 | 276.99 | 828.16 |
| 7 | 24 | 271.02 | 836.37 |
| 8 | 28 | 262.91 | 847.82 |
| 9 | 32 | 260.34 | 857.02 |
| 10 | 36 | 263.46 | 860.27 |
| 11 | 40 | 267.64 | 858.93 |
| 12 | 44 | 270.01 | 855.86 |
| 13 | 48 | 268.95 | 857.44 |
| 14 | 52 | 262.63 | 867.50 |
| 15 | 56 | 258.07 | 880.24 |
| 16 | 60 | 258.69 | 888.69 |
| 17 | 64 | 264.33 | 883.90 |
| 18 | 68 | 271.66 | 864.55 |
| 19 | 72 | 274.79 | 847.42 |
| 20 | 76 | 279.51 | 846.28 |
| 21 | 80 | 287.05 | 856.97 |
| 22 | 84 | 290.46 | 868.84 |
| 23 | 88 | 290.02 | 875.04 |
| 24 | 92 | 288.98 | 877.29 |

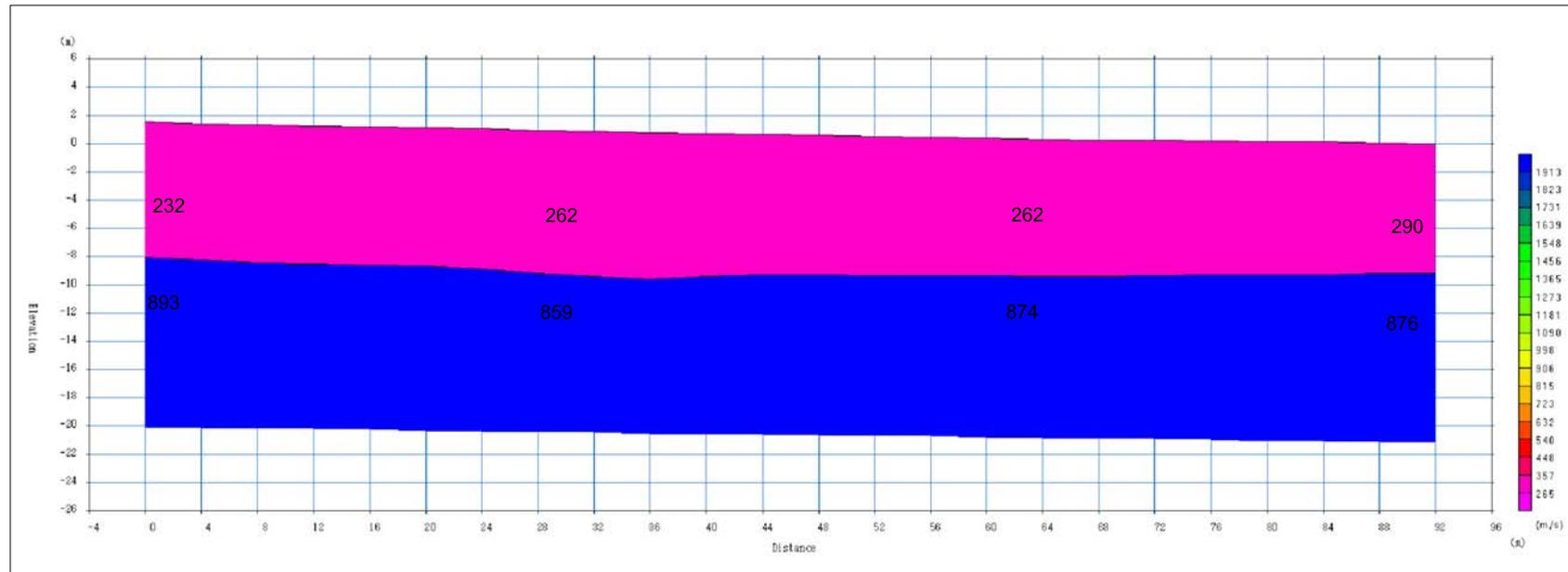
LINEA SISMICA SR_1 SEZIONE SISMOSTRATIGRAFICA: ONDE P



Scala 1:500

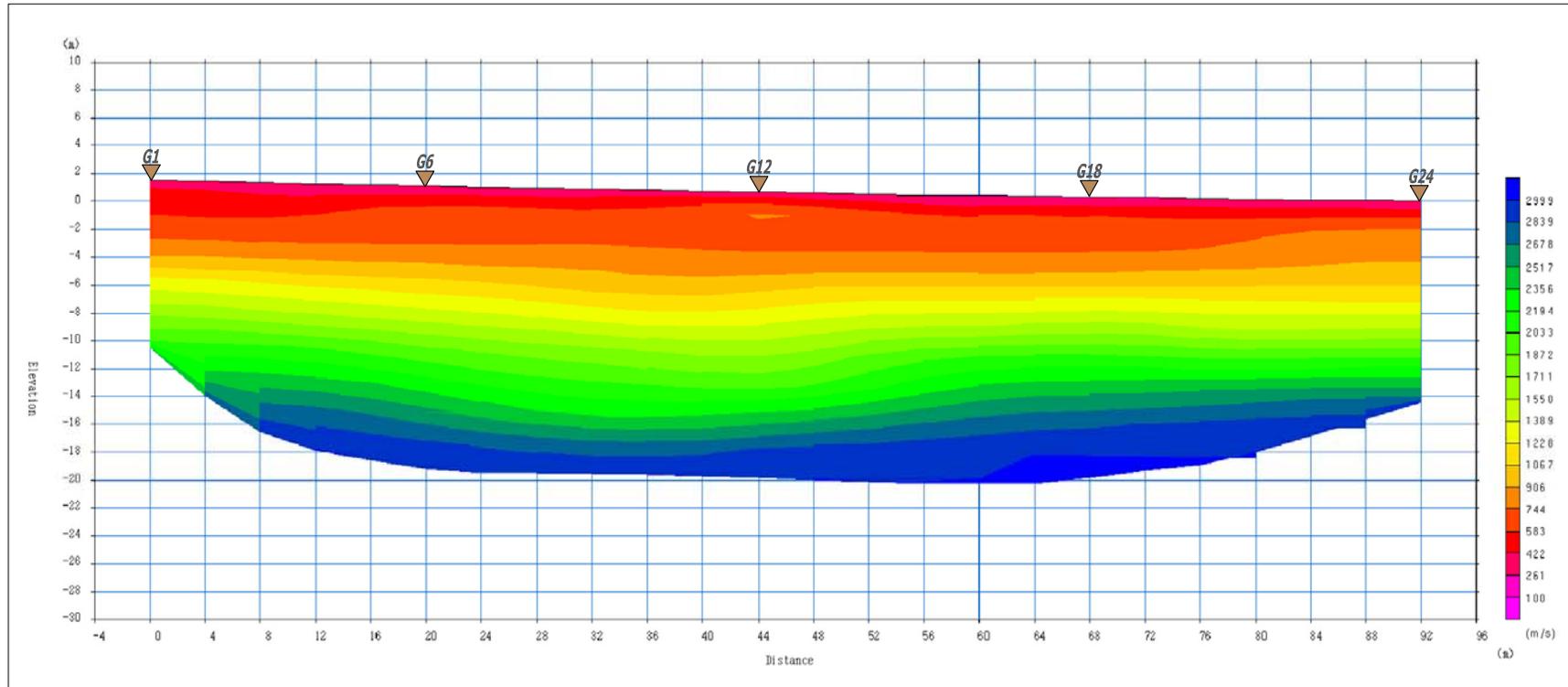
LINEA SISMICA SR_1

SEZIONE SISMOSTRATIGRAFICA: ONDE SH



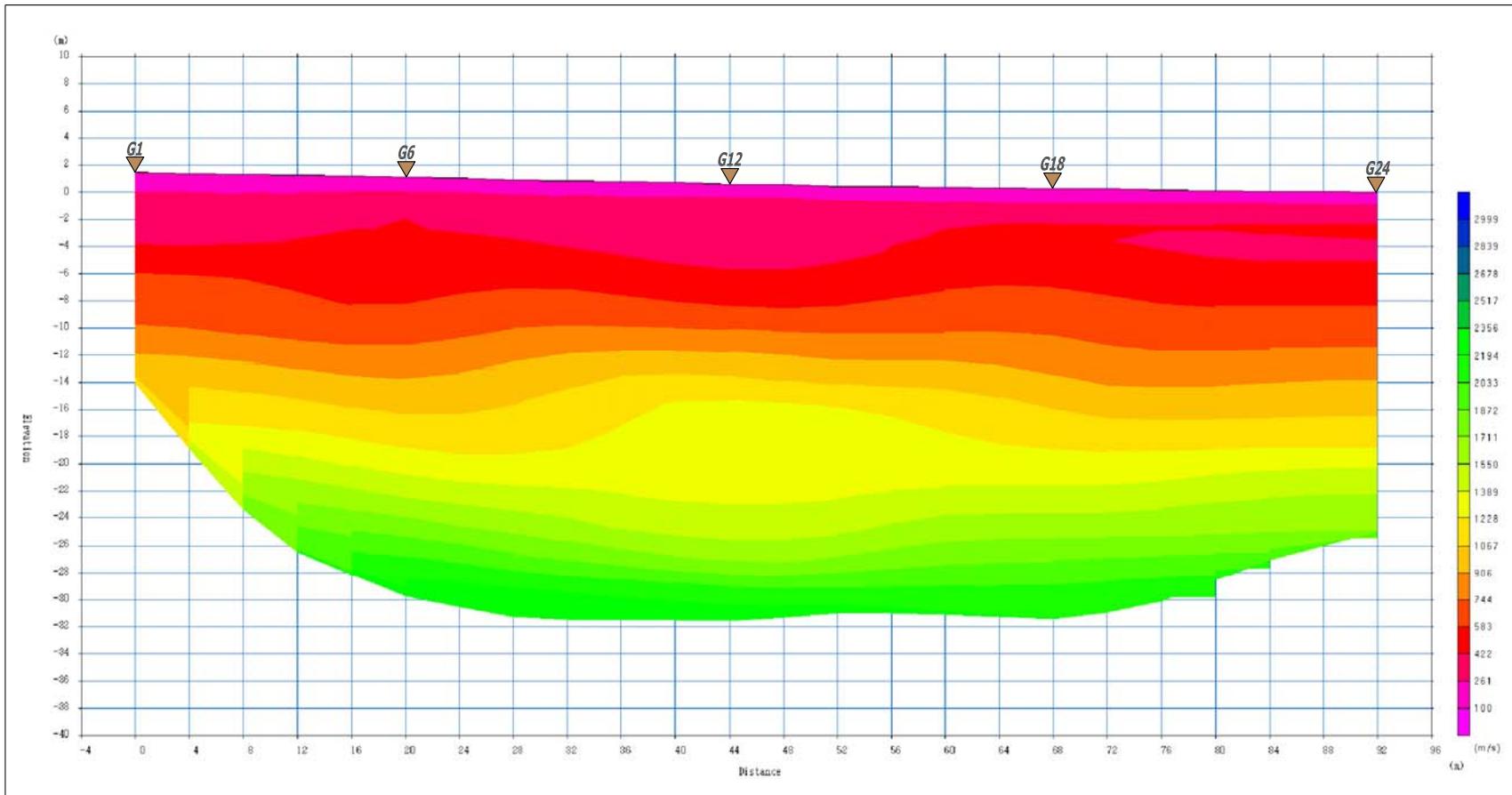
Scala 1:500

LINEA SISMICA SR_1 SEZIONE TOMOGRAFICA ONDE P

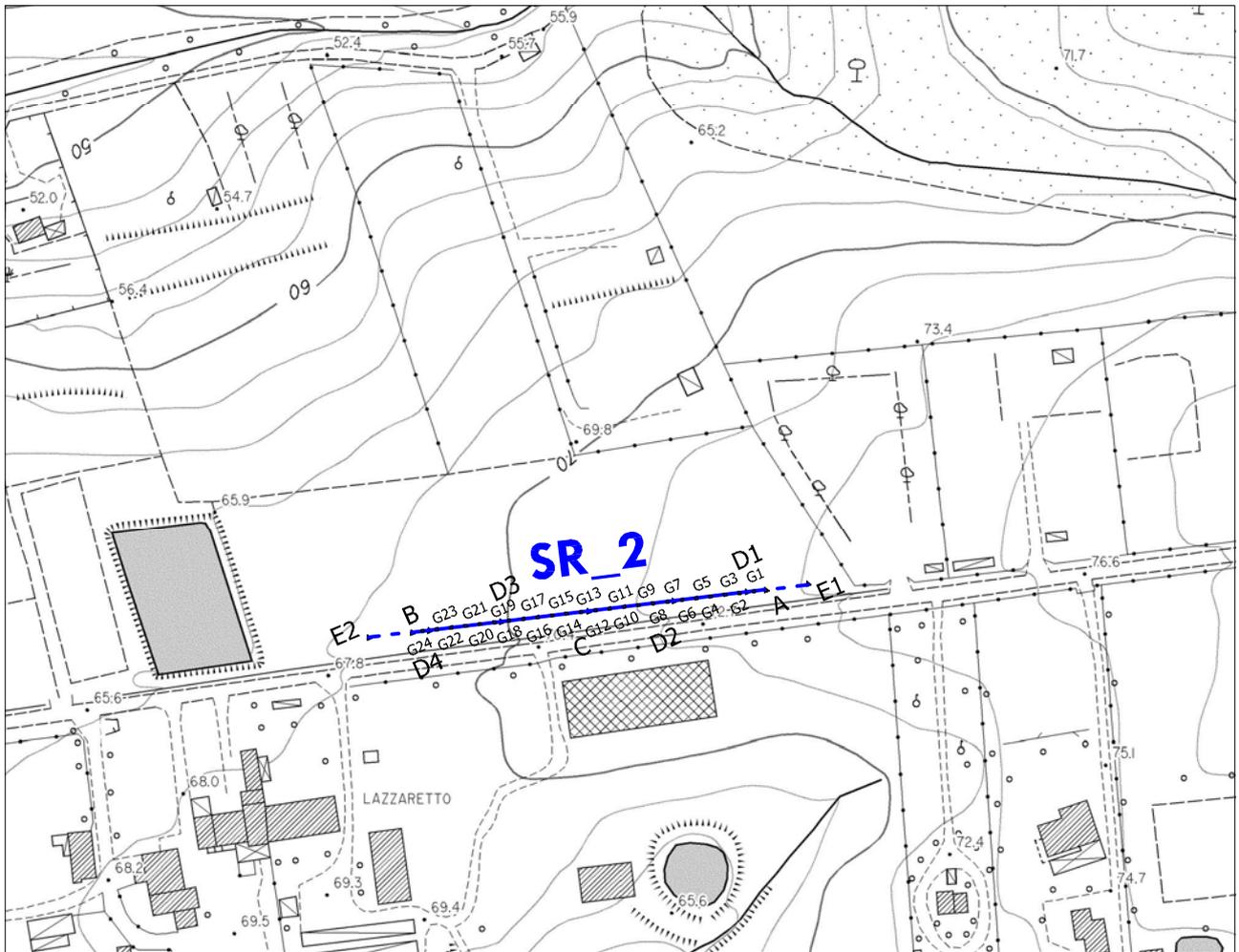


Scala 1:500

LINEA SISMICA SR_1 SEZIONE TOMOGRAFICA ONDE SH



Scala 1:500



PROSPEZIONE SISMICA A RIFRAZIONE (SR_2) CON ONDE P E SH

Scala 1:2.000

• G1 POSIZIONE GEOFONO

E ^ TIRI ESTERNI

A e B ^ TIRI ESTREMI

C ^ TIRO CENTRALE

D1-D2 ^ TIRI INTERMEDI SINISTRI

D3-D4 ^ TIRI INTERMEDI DESTRI

SR_2

LINEA SISMICA SR_2



Linea sismica a rifrazione SR_2

| Geofoni | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|--------------------------|-------|------|------|------|-------|------|-------|------|-------|------|-------|------|-------|----|-------|-------|-------|-------|------|-------|------|-------|-------|------|
| Distanza Progressiva (m) | 16 | 20 | 24 | 28 | 32 | 36 | 40 | 44 | 48 | 52 | 56 | 60 | 64 | 68 | 72 | 76 | 80 | 84 | 88 | 92 | 96 | 100 | 104 | 108 |
| Distanza Parziale (m) | 0 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Quota (m slm) | 71.75 | 71.7 | 71.6 | 71.5 | 71.35 | 71.2 | 71.05 | 70.9 | 70.75 | 70.6 | 70.45 | 70.3 | 70.15 | 70 | 69.85 | 69.75 | 69.65 | 69.55 | 69.5 | 69.45 | 69.4 | 69.36 | 69.32 | 69.3 |

Linea sismica SR_2

Coordinate Gauss Boaga

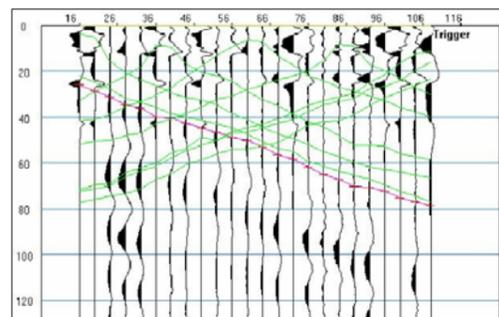
| | Geofono N.1 (G1) | Geofono N.24 (G24) |
|-------|------------------|--------------------|
| X (m) | 609801 | 609666 |
| Y (m) | 4819989 | 4819969 |

Punti di energizzazione linea sismica SR_2

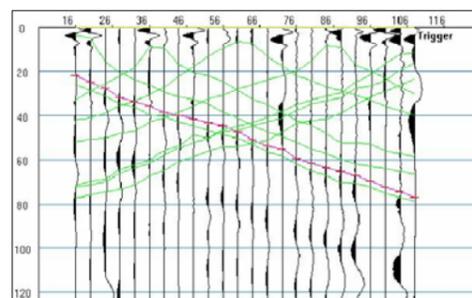
| | E1 Esterno Sx | A Estremo Sx | D1 Intermedio Sx | D2 Intermedio Sx | C Centrale | D3 Intermedio Dx | D4 Intermedio Dx | B Estremo Dx | E2 Esterno Dx |
|--------------------------|---------------|--------------|------------------|------------------|------------|------------------|------------------|--------------|---------------|
| Onde P | t2p1 | t2p2 | t2p3 | t2p4 | t2p5 | t2p6 | t2p7 | t2p8 | t2p9 |
| Onde SH | t2s1 | t2s2 | t2s3 | t2s4 | t2s5 | t2s6 | t2s7 | t2s8 | t2s9 |
| Posiz. dal geof. N.1 (m) | 0 | 12 | 18 | 38 | 62 | 82 | 106 | 112 | 124 |
| Quota (m slm) | 72.05 | 71.98 | 71.73 | 71.13 | 70.21 | 69.53 | 69.31 | 69.2 | 68.5 |

LINEA SISMICA SR_2 REGISTRAZIONI DI CAMPAGNA DELLE ONDE P

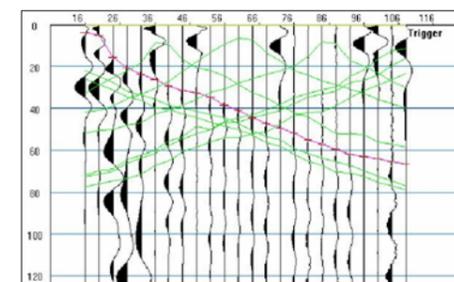
TIRO ESTERNO SINISTRO E1



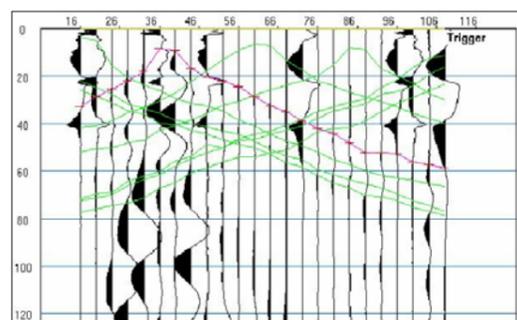
TIRO ESTREMO SINISTRO A



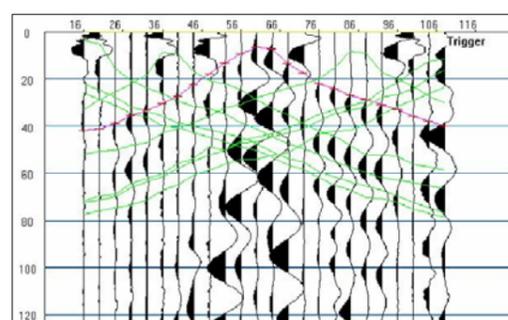
TIRO INTERMEDIO D1



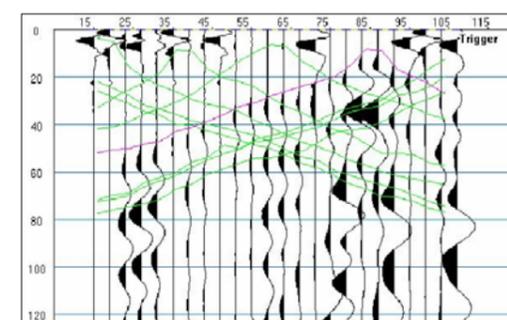
TIRO INTERMEDIO D2



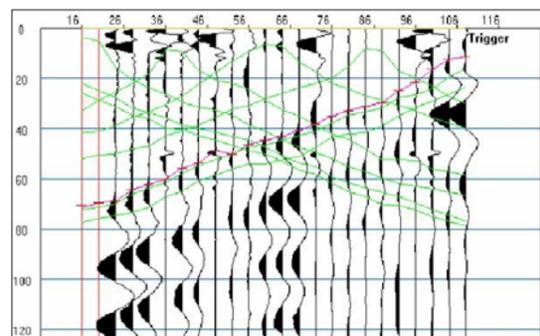
TIRO CENTRALE C



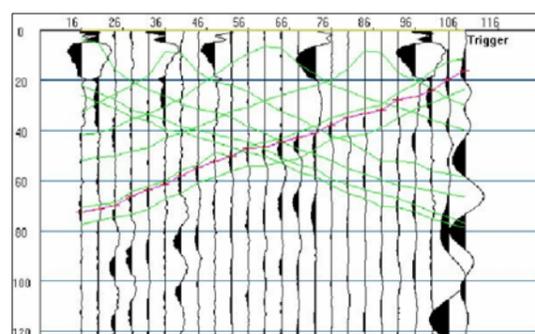
TIRO INTERMEDIO D3



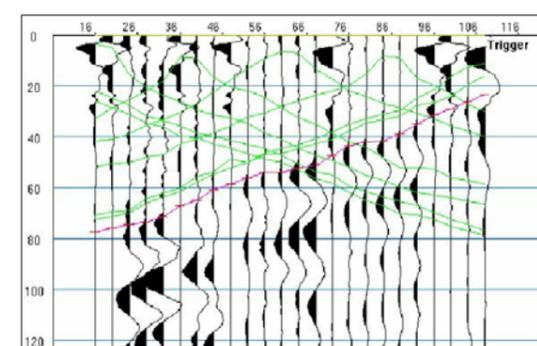
TIRO INTERMEDIO D4



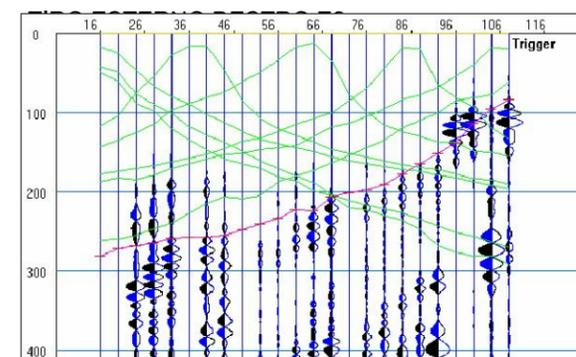
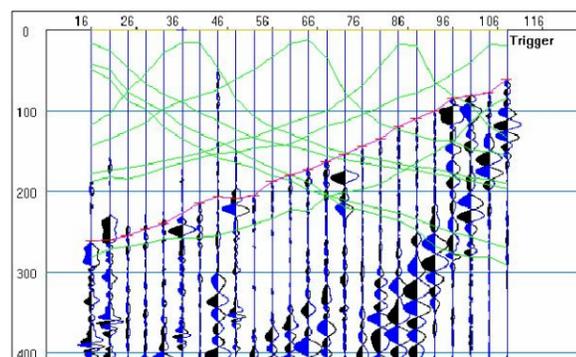
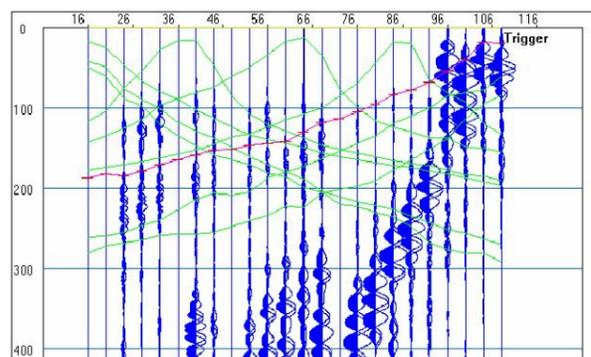
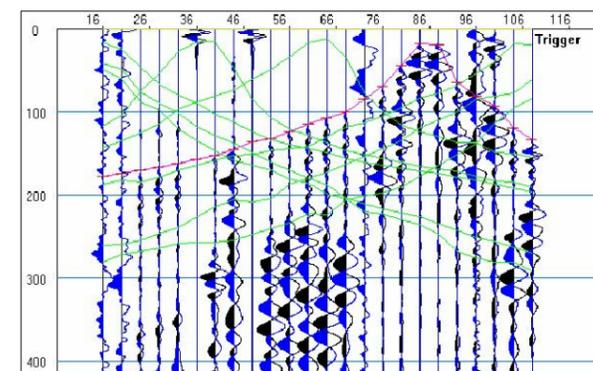
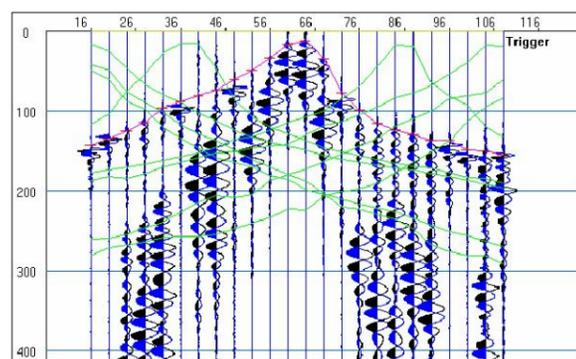
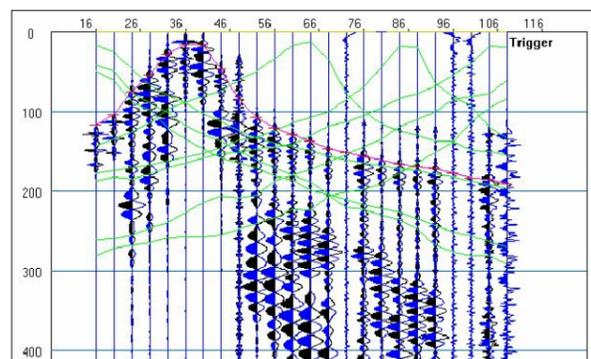
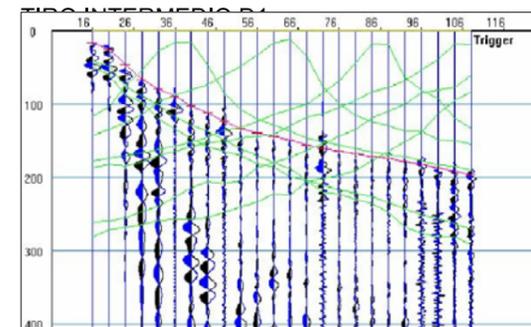
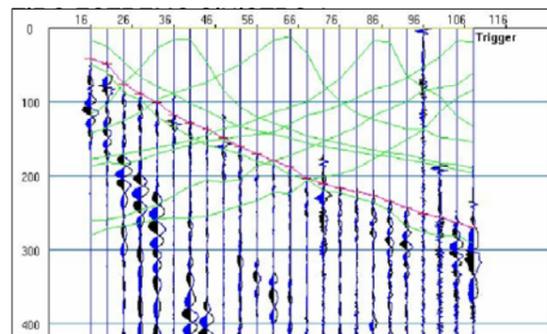
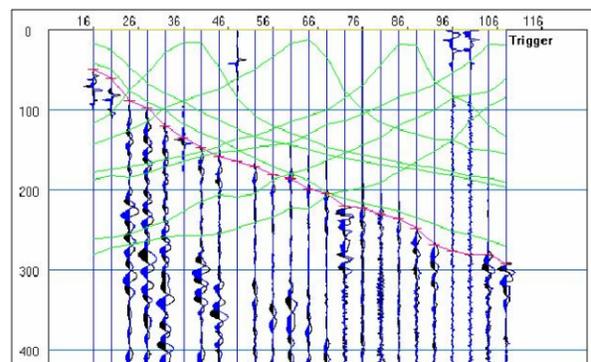
TIRO ESTREMO DESTRO B



TIRO ESTERNO DESTRO E2



LINEA SISMICA SR_2 REGISTRAZIONI DI CAMPAGNA DELLE ONDE SH



LINEA SISMICA SR_2

TEMPI DI PROPAGAZIONE DELLE ONDE P

| SP | Elev | X-loc | Y-Loc | Depth |
|----|------|--------|-------|-------|
| 1 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2 | 0.00 | 12.00 | 0.00 | 0.00 |
| 3 | 2.43 | 18.00 | 0.00 | 0.00 |
| 4 | 1.82 | 38.00 | 0.00 | 0.00 |
| 5 | 0.93 | 62.00 | 0.00 | 0.00 |
| 6 | 0.23 | 86.00 | 0.00 | 0.00 |
| 7 | 0.01 | 106.00 | 0.00 | 0.00 |
| 8 | 0.00 | 112.00 | 0.00 | 0.00 |
| 9 | 0.00 | 124.00 | 0.00 | 0.00 |

| Geo | Elev | X-loc | Y-Loc | SP 1 | SP 2 | SP 3 | SP 4 | SP 5 | SP 6 | SP 7 | SP 8 | SP 9 |
|-----|------|--------|-------|------|--------|---------|----------|----------|----------|----------|--------|--------|
| 1 | 2.45 | 16.00 | 0.00 | 0.00 | 1 0.00 | 1 6.48 | 1 30.54 | 1 143.64 | 1 157.80 | 1 168.15 | 1 0.00 | 1 0.00 |
| 2 | 2.40 | 20.00 | 0.00 | 0.00 | 1 0.00 | 1 6.48 | 1 27.52 | 1 140.87 | 1 155.42 | 1 166.97 | 1 0.00 | 1 0.00 |
| 3 | 2.30 | 24.00 | 0.00 | 0.00 | 1 0.00 | 1 15.78 | 1 124.72 | 1 138.36 | 1 152.95 | 1 165.60 | 1 0.00 | 1 0.00 |
| 4 | 2.20 | 28.00 | 0.00 | 0.00 | 1 0.00 | 1 20.66 | 1 121.40 | 1 136.06 | 1 150.71 | 1 163.56 | 1 0.00 | 1 0.00 |
| 5 | 2.05 | 32.00 | 0.00 | 0.00 | 1 0.00 | 1 24.80 | 1 117.17 | 1 133.81 | 1 148.69 | 1 161.55 | 1 0.00 | 1 0.00 |
| 6 | 1.90 | 36.00 | 0.00 | 0.00 | 1 0.00 | 1 27.64 | 1 118.35 | 1 130.96 | 1 146.61 | 1 159.51 | 1 0.00 | 1 0.00 |
| 7 | 1.75 | 40.00 | 0.00 | 0.00 | 1 0.00 | 1 29.94 | 1 118.35 | 1 126.75 | 1 143.69 | 1 156.92 | 1 0.00 | 1 0.00 |
| 8 | 1.60 | 44.00 | 0.00 | 0.00 | 1 0.00 | 1 31.97 | 1 115.78 | 1 122.34 | 1 139.82 | 1 153.56 | 1 0.00 | 1 0.00 |
| 9 | 1.45 | 48.00 | 0.00 | 0.00 | 1 0.00 | 1 33.71 | 1 119.27 | 1 118.44 | 1 136.44 | 1 150.18 | 1 0.00 | 1 0.00 |
| 10 | 1.30 | 52.00 | 0.00 | 0.00 | 1 0.00 | 1 35.71 | 1 121.97 | 1 115.08 | 1 133.51 | 1 147.25 | 1 0.00 | 1 0.00 |
| 11 | 1.15 | 56.00 | 0.00 | 0.00 | 1 0.00 | 1 37.95 | 1 124.70 | 1 111.67 | 1 131.04 | 1 144.78 | 1 0.00 | 1 0.00 |
| 12 | 1.00 | 60.00 | 0.00 | 0.00 | 1 0.00 | 1 40.54 | 1 127.65 | 1 116.83 | 1 128.91 | 1 142.64 | 1 0.00 | 1 0.00 |
| 13 | 0.85 | 64.00 | 0.00 | 0.00 | 1 0.00 | 1 43.65 | 1 130.94 | 1 116.93 | 1 127.08 | 1 140.82 | 1 0.00 | 1 0.00 |
| 14 | 0.70 | 68.00 | 0.00 | 0.00 | 1 0.00 | 1 46.76 | 1 134.55 | 1 112.97 | 1 125.51 | 1 139.25 | 1 0.00 | 1 0.00 |
| 15 | 0.55 | 72.00 | 0.00 | 0.00 | 1 0.00 | 1 49.58 | 1 137.71 | 1 117.31 | 1 122.93 | 1 137.72 | 1 0.00 | 1 0.00 |
| 16 | 0.45 | 76.00 | 0.00 | 0.00 | 1 0.00 | 1 52.03 | 1 140.39 | 1 121.25 | 1 120.10 | 1 135.95 | 1 0.00 | 1 0.00 |
| 17 | 0.35 | 80.00 | 0.00 | 0.00 | 1 0.00 | 1 53.95 | 1 142.68 | 1 124.65 | 1 116.10 | 1 133.54 | 1 0.00 | 1 0.00 |
| 18 | 0.25 | 84.00 | 0.00 | 0.00 | 1 0.00 | 1 55.74 | 1 144.66 | 1 126.80 | 1 118.97 | 1 130.79 | 1 0.00 | 1 0.00 |
| 19 | 0.20 | 88.00 | 0.00 | 0.00 | 1 0.00 | 1 57.83 | 1 146.75 | 1 129.10 | 1 118.97 | 1 128.16 | 1 0.00 | 1 0.00 |
| 20 | 0.15 | 92.00 | 0.00 | 0.00 | 1 0.00 | 1 60.17 | 1 149.23 | 1 131.67 | 1 116.42 | 1 125.23 | 1 0.00 | 1 0.00 |
| 21 | 0.10 | 96.00 | 0.00 | 0.00 | 1 0.00 | 1 62.10 | 1 151.67 | 1 134.15 | 1 120.41 | 1 121.52 | 1 0.00 | 1 0.00 |
| 22 | 0.06 | 100.00 | 0.00 | 0.00 | 1 0.00 | 1 64.13 | 1 154.36 | 1 136.87 | 1 124.06 | 1 117.20 | 1 0.00 | 1 0.00 |
| 23 | 0.02 | 104.00 | 0.00 | 0.00 | 1 0.00 | 1 66.35 | 1 157.09 | 1 139.94 | 1 127.70 | 1 110.45 | 1 0.00 | 1 0.00 |
| 24 | 0.00 | 108.00 | 0.00 | 0.00 | 1 0.00 | 1 68.25 | 1 159.47 | 1 143.10 | 1 131.08 | 1 110.62 | 1 0.00 | 1 0.00 |

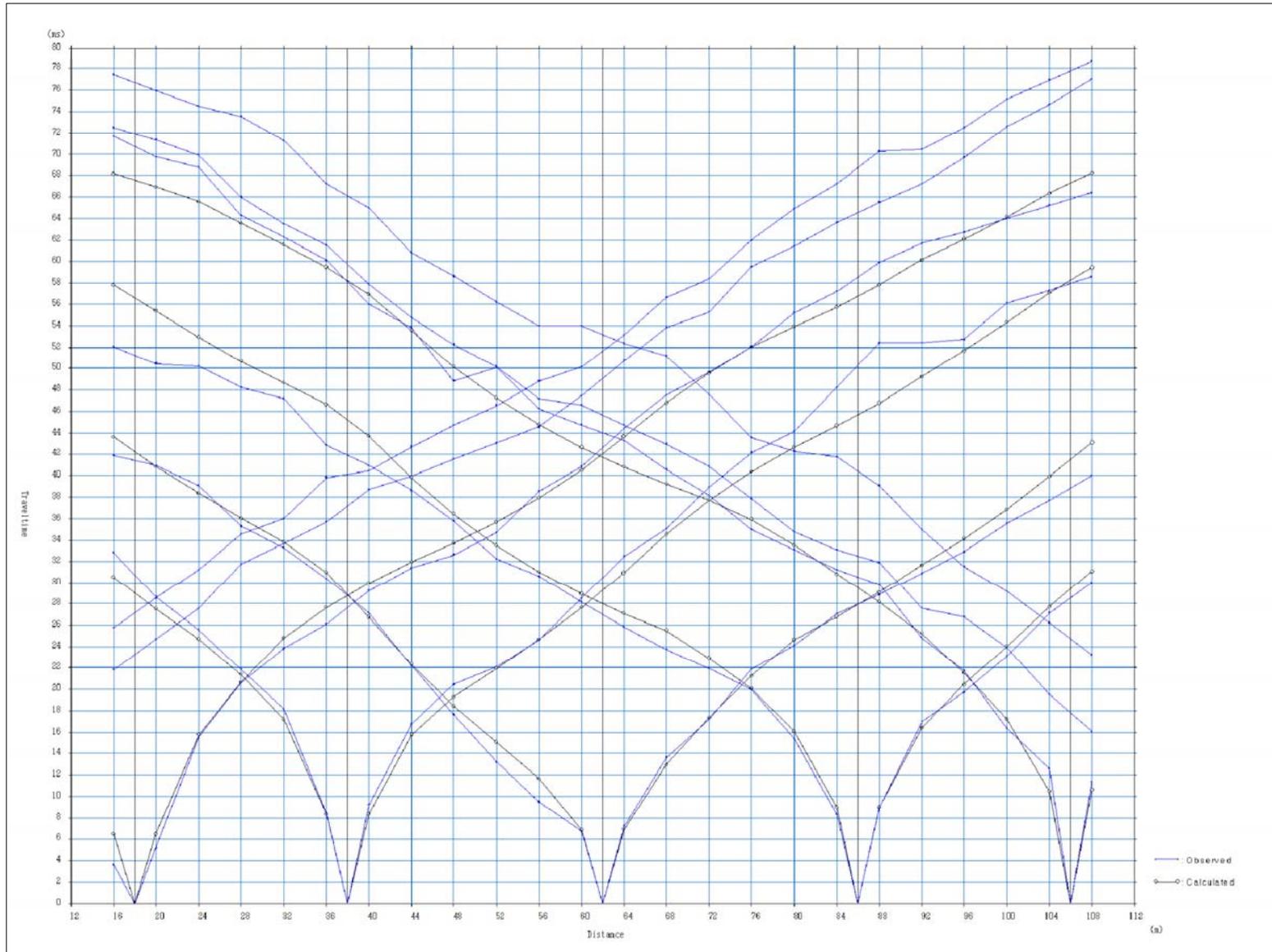
LINEA SISMICA SR_2

TEMPI DI PROPAGAZIONE DELLE ONDE SH

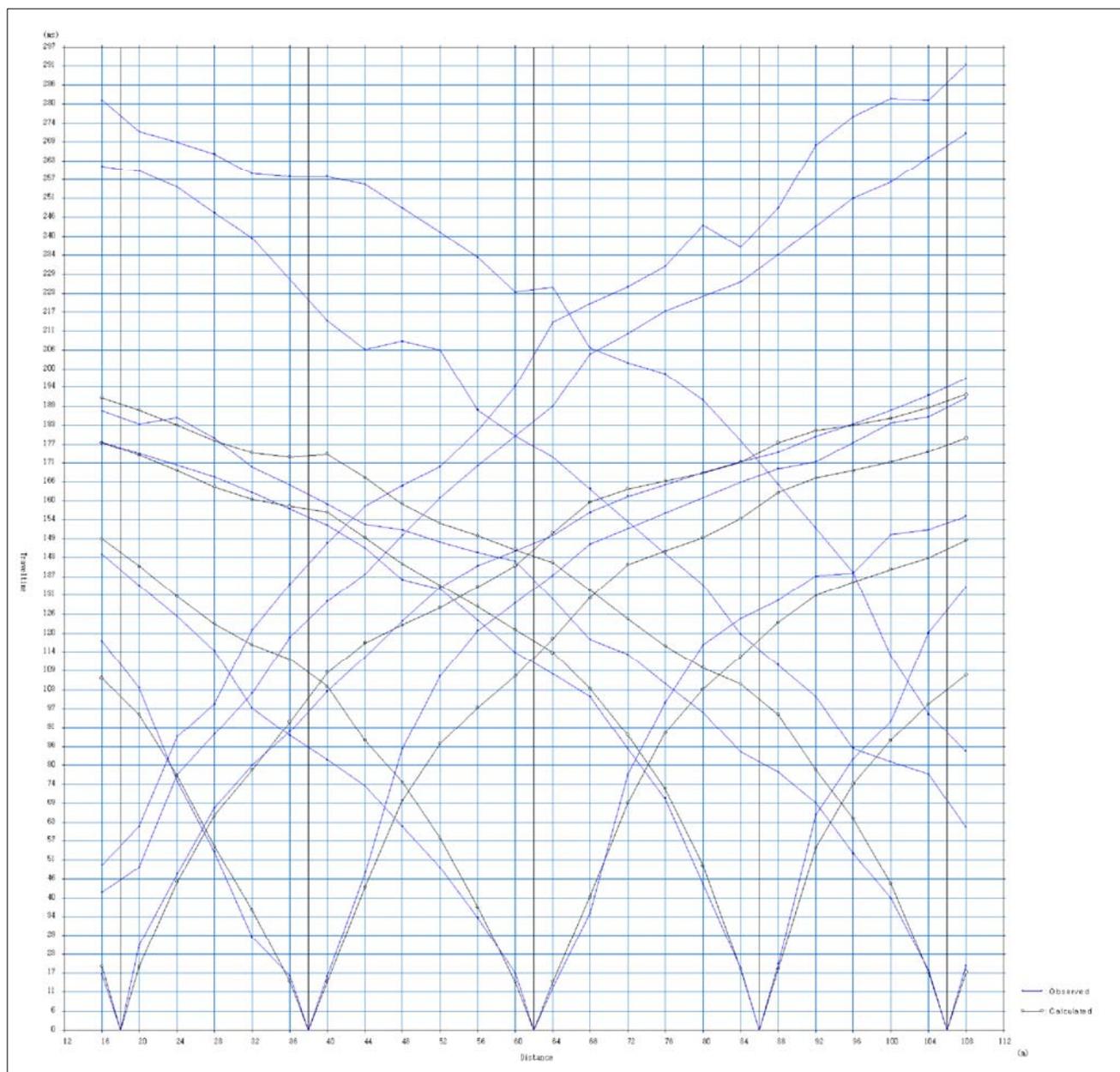
| SP | Elev | X-loc | Y-Loc | Depth |
|----|------|------------|-------|-------|
| 1 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2 | 0.00 | 12.00 | 0.00 | 0.00 |
| 3 | 2.43 | 18.00 | 0.00 | 0.00 |
| 4 | 1.82 | 38.00 | 0.00 | 0.00 |
| 5 | 0.93 | 62.00 | 0.00 | 0.00 |
| 6 | 0.23 | 86.00 | 0.00 | 0.00 |
| 7 | 0.01 | 106.000.00 | 0.00 | 0.00 |
| 8 | 0.00 | 112.000.00 | 0.00 | 0.00 |
| 9 | 0.00 | 124.000.00 | 0.00 | 0.00 |

| Geo | Elev | X-loc | Y-Loc | SP 1 | SP 2 | SP 3 | SP 4 | SP 5 | SP 6 | SP 7 | SP 8 | SP 9 | |
|-----|------|------------|-------|------|--------|----------|---------|---------|---------|----------|-------|-------|---|
| 1 | 2.45 | 16.00 | 0.00 | 0.00 | 1 0.00 | 1 19.18 | 1106.29 | 1148.50 | 1177.45 | 1191.09 | 10.00 | 10.00 | 1 |
| 2 | 2.40 | 20.00 | 0.00 | 0.00 | 1 0.00 | 1 19.18 | 195.48 | 1140.23 | 1173.82 | 1187.46 | 10.00 | 10.00 | 1 |
| 3 | 2.30 | 24.00 | 0.00 | 0.00 | 1 0.00 | 1 44.77 | 176.92 | 1130.96 | 1169.20 | 1182.91 | 10.00 | 10.00 | 1 |
| 4 | 2.20 | 28.00 | 0.00 | 0.00 | 1 0.00 | 1 64.79 | 155.50 | 1122.76 | 1164.23 | 1178.20 | 10.00 | 10.00 | 1 |
| 5 | 2.05 | 32.00 | 0.00 | 0.00 | 1 0.00 | 1 78.60 | 136.27 | 1116.55 | 1160.45 | 1174.57 | 10.00 | 10.00 | 1 |
| 6 | 1.90 | 36.00 | 0.00 | 0.00 | 1 0.00 | 1 93.28 | 114.58 | 1112.03 | 1158.35 | 1173.18 | 10.00 | 10.00 | 1 |
| 7 | 1.75 | 40.00 | 0.00 | 0.00 | 1 0.00 | 1 107.99 | 114.58 | 1103.89 | 1156.61 | 1174.13 | 10.00 | 10.00 | 1 |
| 8 | 1.60 | 44.00 | 0.00 | 0.00 | 1 0.00 | 1 117.12 | 143.24 | 187.48 | 1149.03 | 1167.09 | 10.00 | 10.00 | 1 |
| 9 | 1.45 | 48.00 | 0.00 | 0.00 | 1 0.00 | 1 122.36 | 169.35 | 175.04 | 1140.96 | 1159.08 | 10.00 | 10.00 | 1 |
| 10 | 1.30 | 52.00 | 0.00 | 0.00 | 1 0.00 | 1 127.62 | 186.64 | 158.08 | 1134.23 | 1153.28 | 10.00 | 10.00 | 1 |
| 11 | 1.15 | 56.00 | 0.00 | 0.00 | 1 0.00 | 1 134.02 | 197.60 | 137.02 | 1127.99 | 1149.56 | 10.00 | 10.00 | 1 |
| 12 | 1.00 | 60.00 | 0.00 | 0.00 | 1 0.00 | 1 140.36 | 1107.05 | 114.45 | 1120.93 | 1145.33 | 10.00 | 10.00 | 1 |
| 13 | 0.85 | 64.00 | 0.00 | 0.00 | 1 0.00 | 1 150.31 | 1118.28 | 114.45 | 1114.07 | 1141.30 | 10.00 | 10.00 | 1 |
| 14 | 0.70 | 68.00 | 0.00 | 0.00 | 1 0.00 | 1 159.70 | 1130.60 | 140.37 | 1103.18 | 1132.92 | 10.00 | 10.00 | 1 |
| 15 | 0.55 | 72.00 | 0.00 | 0.00 | 1 0.00 | 1 163.64 | 1140.75 | 168.72 | 189.16 | 1 124.34 | 10.00 | 10.00 | 1 |
| 16 | 0.45 | 76.00 | 0.00 | 0.00 | 1 0.00 | 1 165.91 | 1144.82 | 189.85 | 173.02 | 1 116.16 | 10.00 | 10.00 | 1 |
| 17 | 0.35 | 80.00 | 0.00 | 0.00 | 1 0.00 | 1 168.33 | 1148.89 | 1103.00 | 149.63 | 1109.52 | 10.00 | 10.00 | 1 |
| 18 | 0.25 | 84.00 | 0.00 | 0.00 | 1 0.00 | 1 171.66 | 1154.60 | 1113.05 | 118.42 | 1104.57 | 10.00 | 10.00 | 1 |
| 19 | 0.20 | 88.00 | 0.00 | 0.00 | 1 0.00 | 1 177.63 | 1162.41 | 1123.26 | 118.42 | 1 95.54 | 10.00 | 10.00 | 1 |
| 20 | 0.15 | 92.00 | 0.00 | 0.00 | 1 0.00 | 1 181.25 | 1166.84 | 1131.26 | 155.05 | 1 78.71 | 10.00 | 10.00 | 1 |
| 21 | 0.10 | 96.00 | 0.00 | 0.00 | 1 0.00 | 1 182.88 | 1169.01 | 1135.31 | 174.38 | 1 64.00 | 10.00 | 10.00 | 1 |
| 22 | 0.06 | 100.000.00 | 0.00 | 0.00 | 1 0.00 | 1 184.96 | 1171.73 | 1139.24 | 187.56 | 1 44.22 | 10.00 | 10.00 | 1 |
| 23 | 0.02 | 104.000.00 | 0.00 | 0.00 | 1 0.00 | 1 188.11 | 1174.88 | 1142.72 | 198.59 | 1 17.34 | 10.00 | 10.00 | 1 |
| 24 | 0.00 | 108.000.00 | 0.00 | 0.00 | 1 0.00 | 1 192.05 | 1178.90 | 1148.05 | 1107.32 | 117.34 | 10.00 | 10.00 | 1 |

LINEA SISMICA SR_2 DROMOCRONE DELLE ONDE P



LINEA SISMICA SR_2 DROMOCRONE DELLE ONDE SH



LINEA SISMICA SR_2
VELOCITA' SISMICHE DEI RIFRATTORI INDIVIDUATI

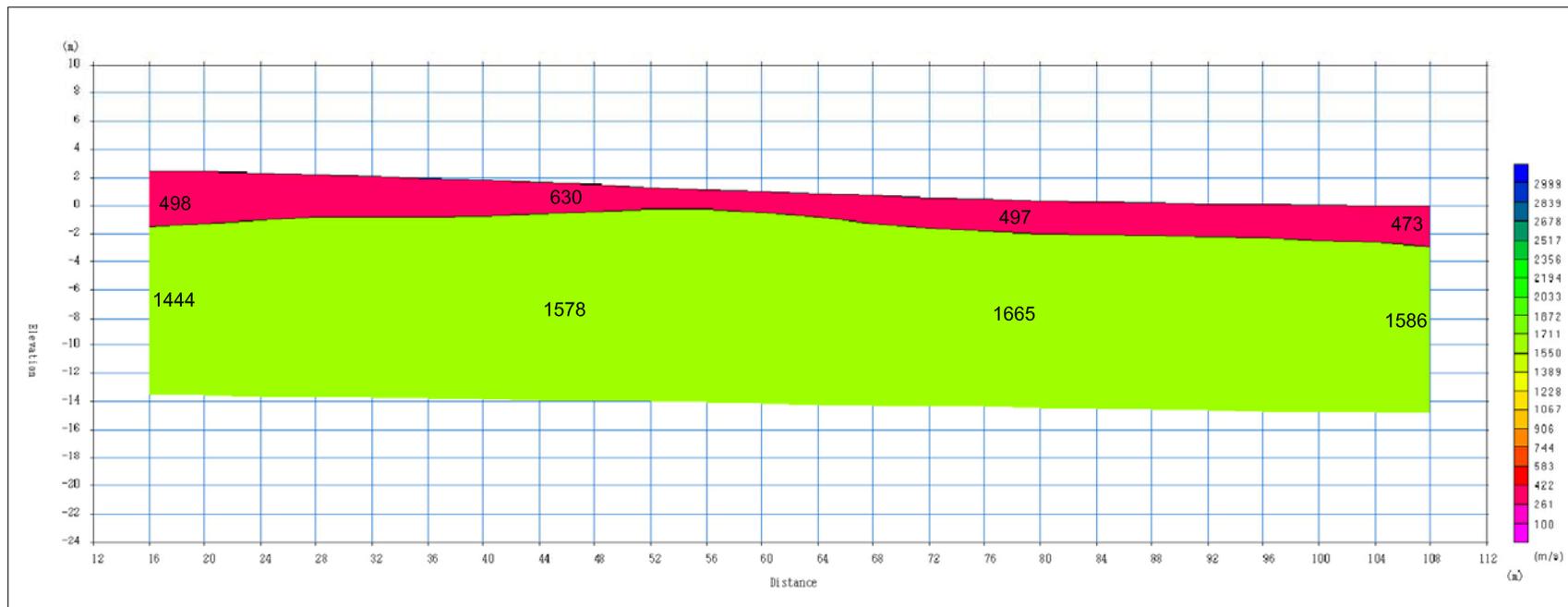
Onde P

| | | Strato 1 | Strato 2 |
|---------|-------|------------|------------|
| Geofono | x (m) | Vs (m/sec) | Vs (m/sec) |
| 1 | 16 | 503.10 | 1448.76 |
| 2 | 20 | 493.78 | 1439.01 |
| 3 | 24 | 481.60 | 1427.29 |
| 4 | 28 | 466.33 | 1417.58 |
| 5 | 32 | 451.68 | 1416.88 |
| 6 | 36 | 465.28 | 1428.05 |
| 7 | 40 | 517.78 | 1450.58 |
| 8 | 44 | 592.21 | 1498.31 |
| 9 | 48 | 668.17 | 1556.74 |
| 10 | 52 | 717.70 | 1600.16 |
| 11 | 56 | 717.31 | 1629.08 |
| 12 | 60 | 664.79 | 1651.97 |
| 13 | 64 | 591.95 | 1679.13 |
| 14 | 68 | 538.97 | 1707.98 |
| 15 | 72 | 511.14 | 1726.30 |
| 16 | 76 | 497.58 | 1722.54 |
| 17 | 80 | 496.08 | 1689.61 |
| 18 | 84 | 492.54 | 1640.14 |
| 19 | 88 | 481.62 | 1601.51 |
| 20 | 92 | 484.35 | 1585.36 |
| 21 | 96 | 494.83 | 1579.68 |
| 22 | 100 | 490.54 | 1579.85 |
| 23 | 104 | 478.14 | 1584.24 |
| 24 | 108 | 467.79 | 1587.79 |

Onde SH

| | | Strato 1 | Strato 2 |
|---------|-------|------------|------------|
| Geofono | x (m) | Vs (m/sec) | Vs (m/sec) |
| 1 | 16 | 152.05 | 507.85 |
| 2 | 20 | 159.39 | 505.98 |
| 3 | 24 | 175.52 | 503.12 |
| 4 | 28 | 191.72 | 500.72 |
| 5 | 32 | 187.53 | 492.22 |
| 6 | 36 | 161.14 | 472.79 |
| 7 | 40 | 144.19 | 455.77 |
| 8 | 44 | 147.22 | 453.30 |
| 9 | 48 | 152.85 | 462.96 |
| 10 | 52 | 154.05 | 478.24 |
| 11 | 56 | 157.17 | 483.54 |
| 12 | 60 | 161.05 | 471.89 |
| 13 | 64 | 155.73 | 460.03 |
| 14 | 68 | 145.50 | 460.30 |
| 15 | 72 | 141.67 | 470.32 |
| 16 | 76 | 146.82 | 482.98 |
| 17 | 80 | 149.99 | 489.47 |
| 18 | 84 | 142.46 | 485.96 |
| 19 | 88 | 135.97 | 480.13 |
| 20 | 92 | 137.30 | 479.36 |
| 21 | 96 | 138.15 | 483.66 |
| 22 | 100 | 140.96 | 490.11 |
| 23 | 104 | 147.76 | 493.71 |
| 24 | 108 | 147.76 | 493.71 |

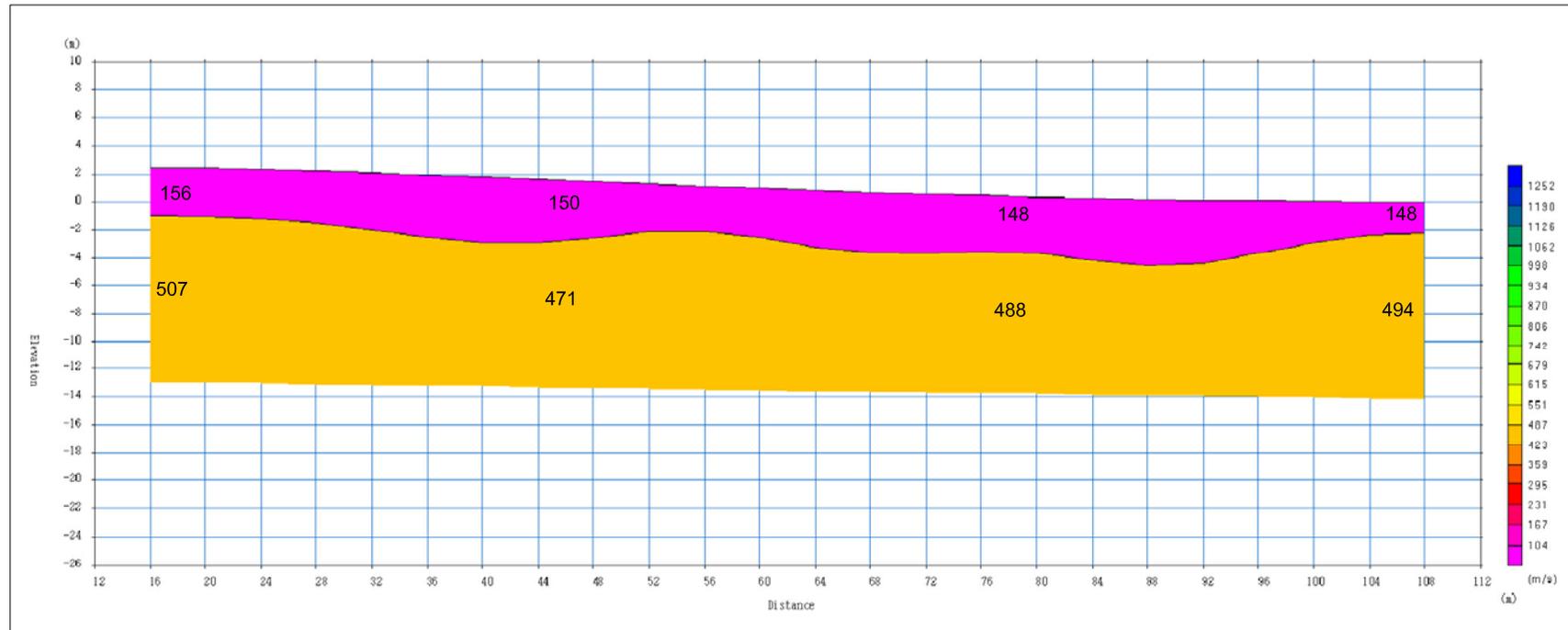
LINEA SISMICA SR_2 SEZIONE SISMOSTRATIGRAFICA: ONDE P



Scala 1:500

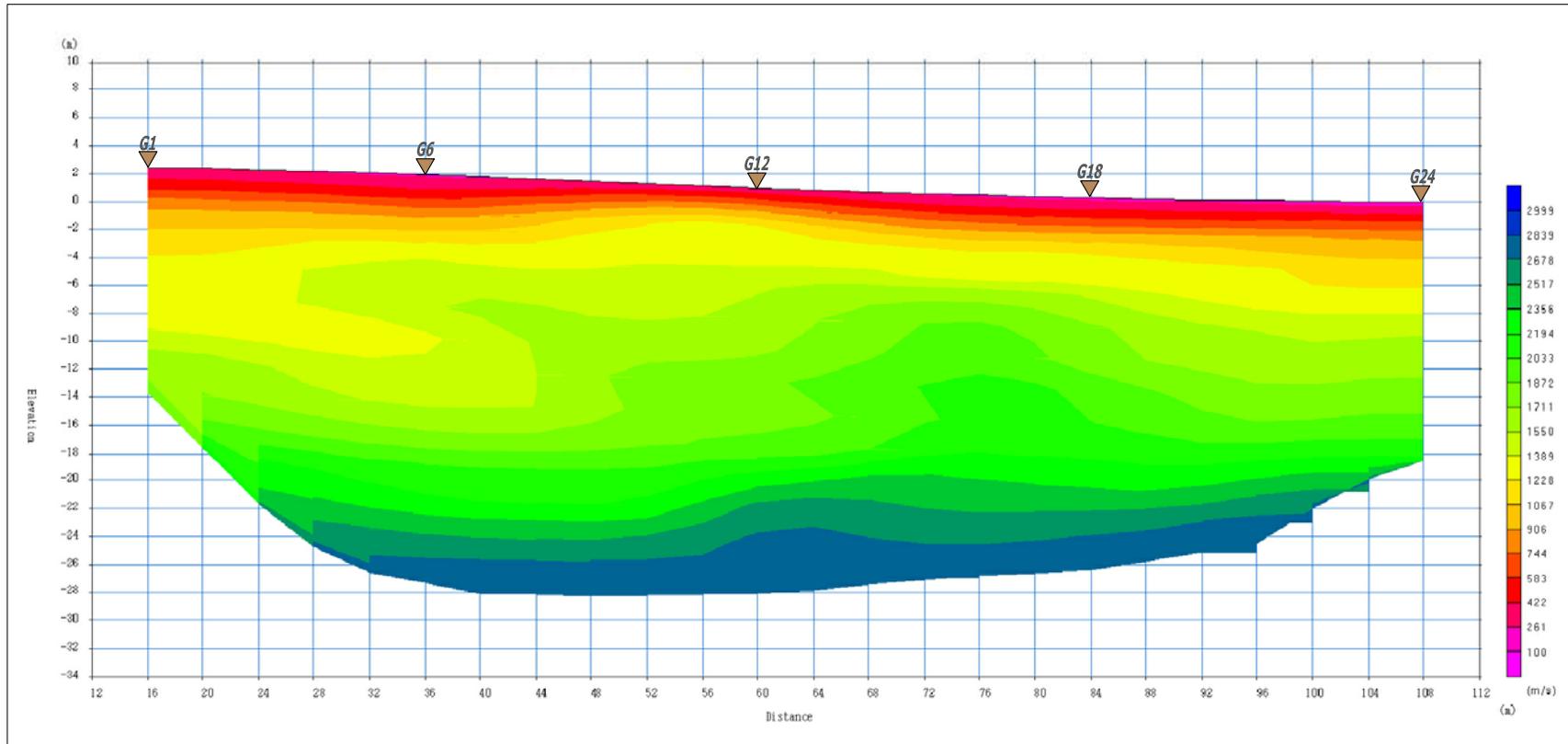
LINEA SISMICA SR_2

SEZIONE SISMOSTRATIGRAFICA: ONDE SH



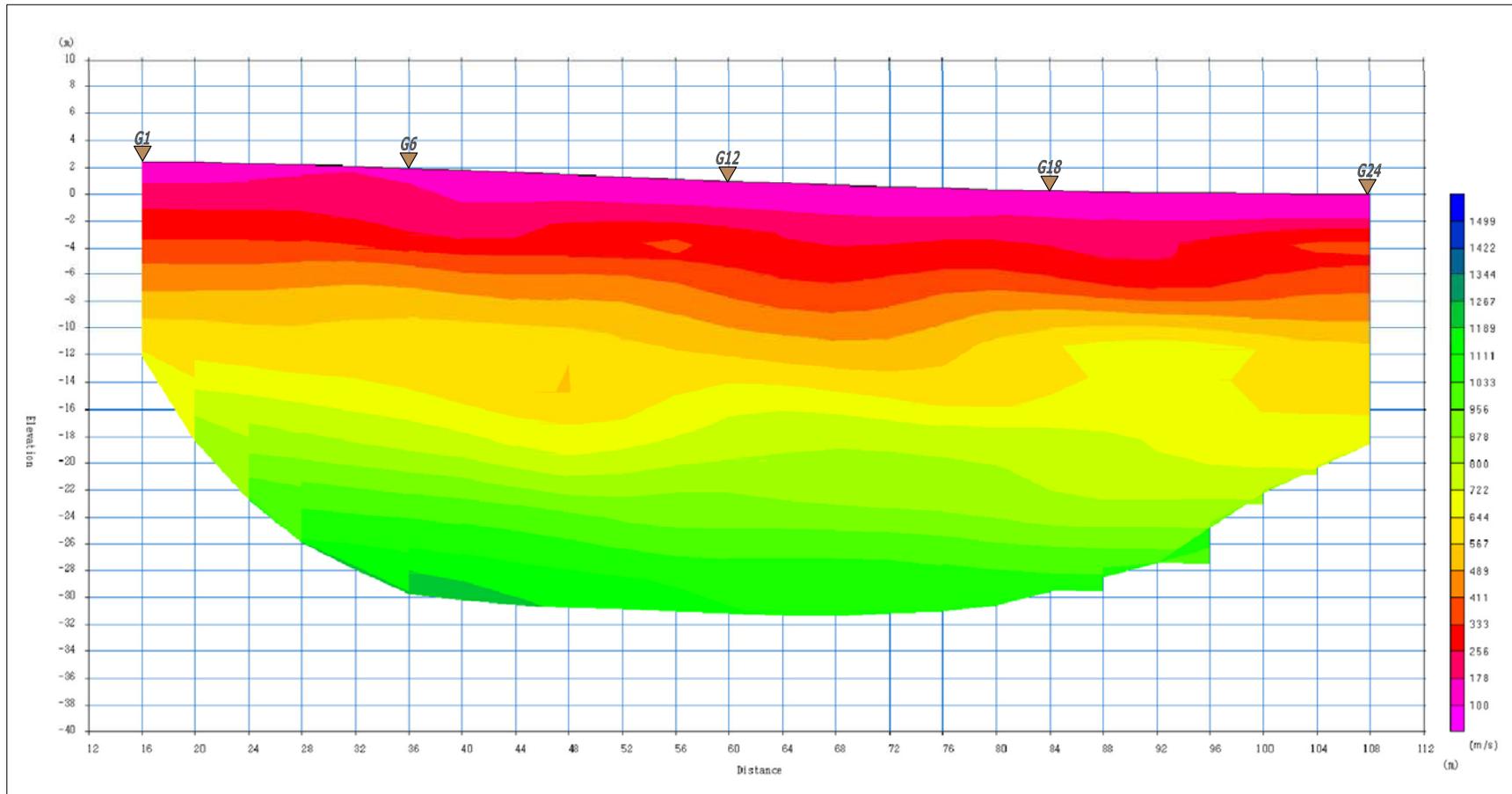
Scala 1:500

LINEA SISMICA SR_2 SEZIONE TOMOGRAFICA ONDE P



Scala 1:500

LINEA SISMICA SR_2 SEZIONE TOMOGRAFICA ONDE SH



Scala 1:500

GEOLOGICA TOSCANA s.n.c.

di Damiano Guarguaglini & C.

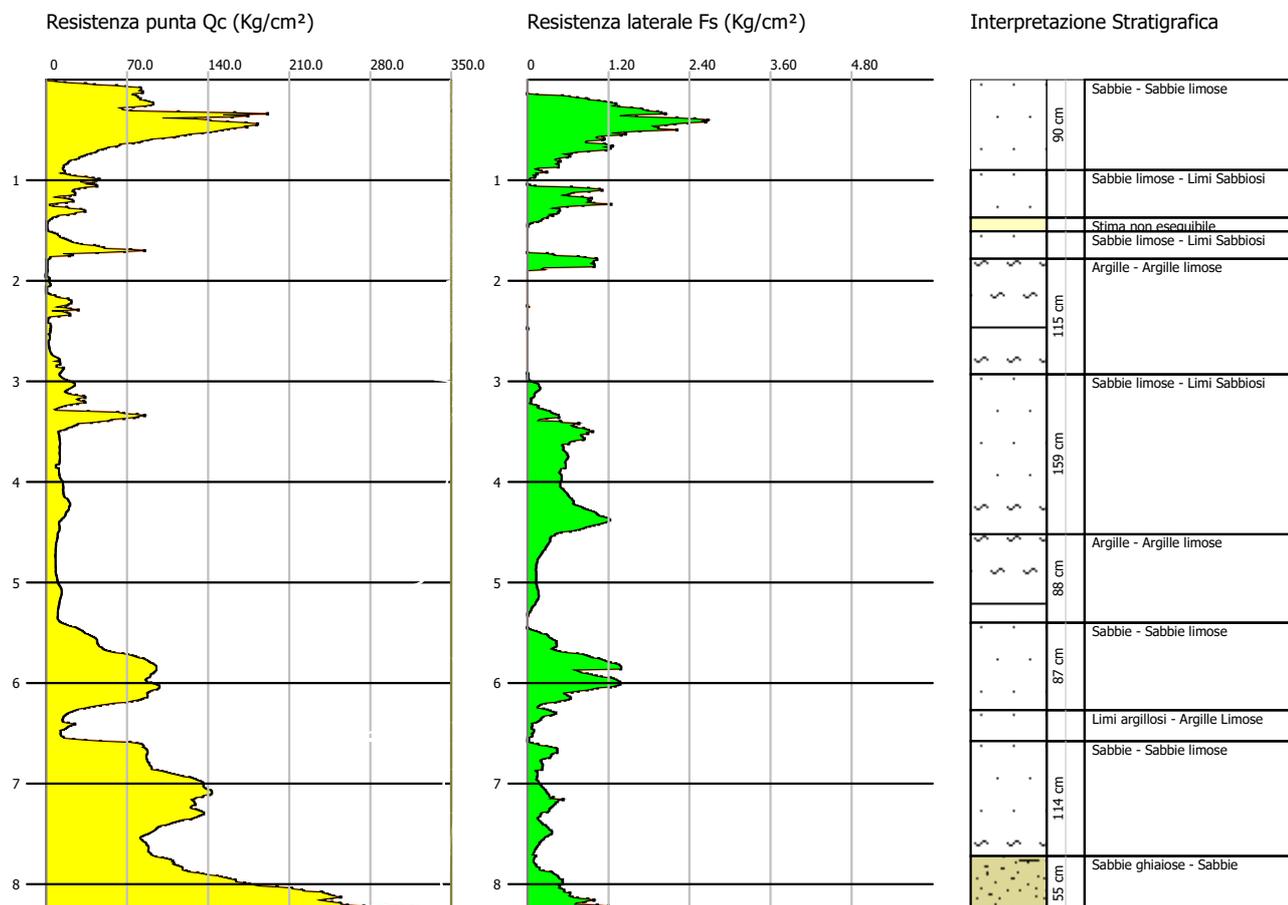
ALLEGATO 4

REPORT DELLE PROVE PENETROMETRICHE STATICHE CON PIEZOCONO (CPTU)

Probe CPTU - Piezocone Nr.1
Strumento utilizzato PAGANI 200 kN (CPTU)

Committente: Comune di Livorno
 Cantiere: Via Don Aldo Mei - Livorno
 Località: Via Don Aldo Mei - Livorno

Data: 10/01/2019



Prova n. 1

PROVA CPTU1_MS2

Committente: Comune di Livorno
 Strumento utilizzato: PAGANI 200 kN (CPTU)
 Prova eseguita in data: 10/01/2019
 Profondità prova: 8.27 mt
 Località: Via Don Aldo Mei - Livorno

RESISTENZE / LITOLOGIE

Profondità
 qc Resistenza punta (Kg/cm²);
 fs Resistenza laterale (Kg/cm²);
 Tilt Inclinazione (°)
 Temp Temperatura (°)
 Fr fs/qcx100 (Schmertmann)
 qcn qc normalizzata (Kg/cm²);
 fsn fs normalizzato (Kg/cm²);
 U2 Pressione neutrale intorno al cono (Kg/cm²);
 Uo Pressione neutrale rilevata (Kg/cm²);
 Fc Contenuto in materiale fine(%)

| Profondità | qc | fs | U2 | Tilt | Temp | qc/fs | Fr | Uo | qcn | fsn | FC% |
|------------|--------|-----|------|------|------|-------|-----|-----|--------|-----|-------|
| 0.01 | 0.714 | 0.0 | 0.07 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | -0.286 | 0.0 | 0 |
| 0.02 | 8.26 | 0.0 | 0.03 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 7.26 | 0.0 | 50.77 |
| 0.03 | 16.111 | 0.0 | 0.02 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 15.111 | 0.0 | 35.13 |
| 0.04 | 34.058 | 0.0 | 0.02 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 33.058 | 0.0 | 22.55 |
| 0.05 | 41.706 | 0.0 | 0.02 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 40.706 | 0.0 | 19.83 |
| 0.06 | 60.876 | 0.0 | 0.02 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 59.876 | 0.0 | 15.41 |
| 0.07 | 69.136 | 0.0 | 0.02 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 68.136 | 0.0 | 14.09 |
| 0.08 | 81.27 | 0.0 | 0.01 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 80.27 | 0.0 | 12.54 |
| 0.09 | 81.678 | 0.0 | 0.01 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 80.678 | 0.0 | 12.49 |

Prova n. 1

| | | | | | | | | | | | |
|------|---------|-------|-------|-----|-----|---------|-------|-----|---------|-------|-------|
| 0.10 | 81.27 | 0.0 | 0.01 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 80.27 | 0.0 | 12.54 |
| 0.11 | 79.944 | 0.0 | 0.01 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 78.944 | 0.0 | 12.69 |
| 0.12 | 83.208 | 0.0 | 0.01 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 82.208 | 0.0 | 12.32 |
| 0.13 | 83.208 | 0.0 | 0.01 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 82.208 | 0.0 | 12.32 |
| 0.14 | 74.54 | 0.0 | 0.01 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 73.54 | 0.0 | 13.35 |
| 0.15 | 74.132 | 0.143 | -0.01 | 0.8 | 0.0 | 518.406 | 0.193 | 0.0 | 73.132 | 0.193 | 5.81 |
| 0.16 | 77.191 | 0.52 | -0.02 | 0.8 | 0.0 | 148.444 | 0.674 | 0.0 | 76.191 | 0.674 | 10.47 |
| 0.17 | 78.619 | 0.622 | -0.01 | 0.9 | 0.0 | 126.397 | 0.791 | 0.0 | 77.619 | 0.791 | 11.27 |
| 0.18 | 79.231 | 0.744 | -0.01 | 0.9 | 0.0 | 106.493 | 0.939 | 0.0 | 78.231 | 0.939 | 12.34 |
| 0.19 | 81.372 | 0.877 | -0.02 | 0.9 | 0.0 | 92.784 | 1.078 | 0.0 | 80.372 | 1.078 | 13.07 |
| 0.20 | 80.76 | 0.908 | -0.01 | 0.9 | 0.0 | 88.943 | 1.124 | 0.0 | 79.76 | 1.125 | 13.46 |
| 0.21 | 85.655 | 1.06 | 0.00 | 0.9 | 0.0 | 80.807 | 1.238 | 0.0 | 84.655 | 1.238 | 13.65 |
| 0.22 | 88.612 | 1.152 | 0.02 | 0.9 | 0.0 | 76.92 | 1.3 | 0.0 | 87.612 | 1.301 | 13.72 |
| 0.23 | 91.773 | 1.244 | 0.00 | 0.9 | 0.0 | 73.773 | 1.356 | 0.0 | 90.773 | 1.356 | 13.73 |
| 0.24 | 92.385 | 1.315 | 0.00 | 0.9 | 0.0 | 70.255 | 1.423 | 0.0 | 91.385 | 1.424 | 14.07 |
| 0.25 | 90.447 | 1.315 | 0.00 | 0.9 | 0.0 | 68.781 | 1.454 | 0.0 | 89.447 | 1.455 | 14.45 |
| 0.26 | 85.655 | 1.264 | -0.01 | 0.9 | 0.0 | 67.765 | 1.476 | 0.0 | 84.655 | 1.476 | 15.09 |
| 0.27 | 75.356 | 1.356 | -0.01 | 0.9 | 0.0 | 55.572 | 1.799 | 0.0 | 74.356 | 1.801 | 18.18 |
| 0.28 | 63.017 | 1.55 | -0.03 | 1.0 | 0.0 | 40.656 | 2.46 | 0.0 | 62.017 | 2.461 | 23.49 |
| 0.29 | 65.261 | 1.693 | 0.04 | 1.0 | 0.0 | 38.548 | 2.594 | 0.0 | 64.261 | 2.596 | 23.69 |
| 0.30 | 65.669 | 1.713 | 0.05 | 1.0 | 0.0 | 38.336 | 2.609 | 0.0 | 64.669 | 2.61 | 23.68 |
| 0.31 | 73.52 | 1.784 | 0.21 | 1.1 | 0.0 | 41.211 | 2.427 | 0.0 | 72.52 | 2.428 | 21.54 |
| 0.32 | 114.206 | 1.937 | 0.12 | 1.0 | 0.0 | 58.96 | 1.696 | 0.0 | 113.206 | 1.697 | 13.68 |
| 0.33 | 162.846 | 1.988 | 0.30 | 1.2 | 0.0 | 81.914 | 1.221 | 0.0 | 161.846 | 1.221 | 8.46 |
| 0.34 | 191.194 | 2.05 | 0.05 | 1.4 | 0.0 | 93.265 | 1.072 | 0.0 | 190.194 | 1.073 | 6.63 |
| 0.35 | 153.159 | 1.499 | 0.00 | 1.7 | 0.0 | 102.174 | 0.979 | 0.0 | 152.159 | 0.979 | 7.44 |
| 0.36 | 174.369 | 1.377 | 0.00 | 1.6 | 0.0 | 126.63 | 0.79 | 0.0 | 173.369 | 0.79 | 5.43 |
| 0.37 | 160.603 | 1.621 | 0.00 | 1.6 | 0.0 | 99.076 | 1.009 | 0.0 | 159.603 | 1.01 | 7.32 |
| 0.38 | 100.44 | 2.223 | 0.03 | 1.6 | 0.0 | 45.182 | 2.213 | 0.0 | 99.44 | 2.215 | 17.33 |
| 0.39 | 128.992 | 2.488 | 0.00 | 1.5 | 0.0 | 51.846 | 1.929 | 0.0 | 127.992 | 1.93 | 13.79 |
| 0.40 | 139.903 | 2.682 | 0.04 | 1.5 | 0.0 | 52.164 | 1.917 | 0.0 | 138.903 | 1.918 | 13.09 |
| 0.41 | 141.33 | 2.6 | 0.03 | 1.6 | 0.0 | 54.358 | 1.84 | 0.0 | 140.33 | 1.841 | 12.65 |
| 0.42 | 156.932 | 2.651 | 0.04 | 1.6 | 0.0 | 59.197 | 1.689 | 0.0 | 155.932 | 1.69 | 11.14 |
| 0.43 | 172.533 | 2.386 | 0.04 | 1.6 | 0.0 | 72.311 | 1.383 | 0.0 | 171.533 | 1.383 | 8.96 |
| 0.44 | 182.628 | 2.192 | 0.03 | 1.6 | 0.0 | 83.316 | 1.2 | 0.0 | 181.628 | 1.201 | 7.62 |
| 0.45 | 181.711 | 2.06 | 0.00 | 1.6 | 0.0 | 88.209 | 1.134 | 0.0 | 180.711 | 1.134 | 7.28 |
| 0.46 | 171.819 | 1.856 | 0.00 | 1.6 | 0.0 | 92.575 | 1.08 | 0.0 | 170.819 | 1.081 | 7.32 |
| 0.47 | 173.349 | 1.886 | 0.00 | 1.6 | 0.0 | 91.914 | 1.088 | 0.0 | 172.349 | 1.088 | 7.31 |
| 0.48 | 163.05 | 1.948 | 0.02 | 1.6 | 0.0 | 83.701 | 1.195 | 0.0 | 162.05 | 1.195 | 8.31 |
| 0.49 | 157.238 | 1.937 | 0.02 | 1.6 | 0.0 | 81.176 | 1.232 | 0.0 | 156.238 | 1.232 | 8.76 |
| 0.50 | 152.241 | 2.223 | 0.00 | 1.7 | 0.0 | 68.484 | 1.46 | 0.0 | 151.241 | 1.461 | 10.22 |
| 0.51 | 146.633 | 1.672 | 0.02 | 1.7 | 0.0 | 87.699 | 1.14 | 0.0 | 145.633 | 1.141 | 8.71 |
| 0.52 | 141.84 | 1.448 | 0.02 | 1.7 | 0.0 | 97.956 | 1.021 | 0.0 | 140.84 | 1.021 | 8.22 |
| 0.53 | 135.11 | 1.254 | -0.02 | 1.7 | 0.0 | 107.743 | 0.928 | 0.0 | 134.11 | 0.929 | 7.96 |
| 0.54 | 124.505 | 1.458 | 0.01 | 1.6 | 0.0 | 85.394 | 1.171 | 0.0 | 123.505 | 1.172 | 10.08 |
| 0.55 | 120.223 | 1.397 | 0.00 | 1.6 | 0.0 | 86.058 | 1.162 | 0.0 | 119.223 | 1.163 | 10.3 |
| 0.56 | 114.002 | 1.122 | 0.01 | 1.6 | 0.0 | 101.606 | 0.984 | 0.0 | 113.002 | 0.985 | 9.58 |
| 0.57 | 110.739 | 1.02 | 0.02 | 1.6 | 0.0 | 108.568 | 0.921 | 0.0 | 109.739 | 0.922 | 9.37 |
| 0.58 | 101.256 | 1.02 | 0.00 | 1.5 | 0.0 | 99.271 | 1.007 | 0.0 | 100.256 | 1.008 | 10.68 |
| 0.59 | 90.651 | 1.142 | 0.02 | 1.5 | 0.0 | 79.379 | 1.26 | 0.0 | 89.651 | 1.261 | 13.27 |
| 0.60 | 87.694 | 1.122 | 0.01 | 1.5 | 0.0 | 78.159 | 1.279 | 0.0 | 86.694 | 1.281 | 13.69 |
| 0.61 | 82.494 | 0.877 | 0.00 | 1.5 | 0.0 | 94.064 | 1.063 | 0.0 | 81.494 | 1.064 | 12.85 |
| 0.62 | 80.454 | 0.857 | -0.01 | 1.5 | 0.0 | 93.879 | 1.065 | 0.0 | 79.454 | 1.066 | 13.1 |
| 0.63 | 75.254 | 0.867 | 0.00 | 1.5 | 0.0 | 86.798 | 1.152 | 0.0 | 74.254 | 1.154 | 14.33 |
| 0.64 | 63.833 | 1.142 | 0.01 | 1.5 | 0.0 | 55.896 | 1.789 | 0.0 | 62.833 | 1.792 | 19.96 |
| 0.65 | 62.915 | 1.183 | 0.00 | 1.5 | 0.0 | 53.183 | 1.88 | 0.0 | 61.915 | 1.883 | 20.62 |
| 0.66 | 60.876 | 1.264 | 0.00 | 1.5 | 0.0 | 48.161 | 2.076 | 0.0 | 59.876 | 2.08 | 22.05 |
| 0.67 | 53.534 | 1.152 | -0.01 | 1.5 | 0.0 | 46.47 | 2.152 | 0.0 | 52.534 | 2.156 | 24.03 |
| 0.68 | 51.495 | 1.234 | 0.01 | 1.5 | 0.0 | 41.73 | 2.396 | 0.0 | 50.495 | 2.401 | 25.76 |
| 0.69 | 48.64 | 1.203 | 0.01 | 1.5 | 0.0 | 40.432 | 2.473 | 0.0 | 47.64 | 2.479 | 26.9 |
| 0.70 | 44.663 | 1.173 | 0.01 | 1.5 | 0.0 | 38.076 | 2.626 | 0.0 | 43.663 | 2.633 | 28.82 |
| 0.71 | 43.235 | 0.908 | 0.00 | 1.5 | 0.0 | 47.616 | 2.1 | 0.0 | 42.235 | 2.105 | 26.61 |
| 0.72 | 42.216 | 0.724 | 0.00 | 1.5 | 0.0 | 58.309 | 1.715 | 0.0 | 41.216 | 1.719 | 24.72 |

Prova n. 1

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|----------|--------|-----|--------|--------|--------|
| 0.73 | 38.443 | 0.653 | 0.01 | 1.5 | 0.0 | 58.871 | 1.699 | 0.0 | 37.443 | 1.703 | 25.93 |
| 0.74 | 35.18 | 0.54 | 0.00 | 1.5 | 0.0 | 65.148 | 1.535 | 0.0 | 34.18 | 1.54 | 26.16 |
| 0.75 | 33.14 | 0.602 | 0.01 | 1.4 | 0.0 | 55.05 | 1.817 | 0.0 | 32.14 | 1.823 | 28.88 |
| 0.76 | 30.795 | 0.632 | 0.00 | 1.4 | 0.0 | 48.726 | 2.052 | 0.0 | 29.795 | 2.06 | 31.46 |
| 0.77 | 28.348 | 0.591 | 0.01 | 1.4 | 0.0 | 47.966 | 2.085 | 0.0 | 27.348 | 2.093 | 33.01 |
| 0.78 | 27.838 | 0.469 | 0.00 | 1.4 | 0.0 | 59.356 | 1.685 | 0.0 | 26.838 | 1.692 | 30.81 |
| 0.79 | 25.289 | 0.408 | -0.03 | 1.4 | 0.0 | 61.983 | 1.613 | 0.0 | 24.289 | 1.621 | 31.94 |
| 0.80 | 20.7 | 0.408 | 0.02 | 1.4 | 0.0 | 50.735 | 1.971 | 0.0 | 19.7 | 1.982 | 37.97 |
| 0.81 | 19.272 | 0.489 | 0.01 | 1.4 | 0.0 | 39.411 | 2.537 | 0.0 | 18.272 | 2.553 | 42.78 |
| 0.82 | 18.559 | 0.449 | 0.00 | 1.4 | 0.0 | 41.334 | 2.419 | 0.0 | 17.559 | 2.435 | 42.88 |
| 0.83 | 17.947 | 0.449 | 0.00 | 1.4 | 0.0 | 39.971 | 2.502 | 0.0 | 16.947 | 2.519 | 44.05 |
| 0.84 | 16.519 | 0.418 | 0.01 | 1.4 | 0.0 | 39.519 | 2.53 | 0.0 | 15.519 | 2.55 | 45.99 |
| 0.85 | 14.684 | 0.459 | 0.00 | 1.4 | 0.0 | 31.991 | 3.126 | 0.0 | 13.684 | 3.153 | 51.9 |
| 0.86 | 14.684 | 0.459 | 0.00 | 1.4 | 0.0 | 31.991 | 3.126 | 0.0 | 13.684 | 3.153 | 51.9 |
| 0.87 | 14.684 | 0.459 | 0.00 | 1.4 | 0.0 | 31.991 | 3.126 | 0.0 | 13.684 | 3.154 | 51.9 |
| 0.88 | 13.664 | 0.153 | 0.03 | 1.3 | 0.0 | 89.307 | 1.12 | 0.0 | 12.664 | 1.131 | 39.83 |
| 0.89 | 13.97 | 0.112 | 0.01 | 1.3 | 0.0 | 124.732 | 0.802 | 0.0 | 12.97 | 0.809 | 36 |
| 0.90 | 14.276 | 0.153 | -0.06 | 1.4 | 0.0 | 93.307 | 1.072 | 0.0 | 13.276 | 1.082 | 38.42 |
| 0.91 | 15.601 | 0.204 | 0.00 | 1.4 | 0.0 | 76.475 | 1.308 | 0.0 | 14.601 | 1.319 | 38.72 |
| 0.92 | 15.805 | 0.286 | 0.00 | 1.5 | 0.0 | 55.262 | 1.81 | 0.0 | 14.805 | 1.825 | 42.36 |
| 0.93 | 12.134 | 0.122 | 0.01 | 1.5 | 0.0 | 99.459 | 1.005 | 0.0 | 11.134 | 1.017 | 41.33 |
| 0.94 | 16.723 | 0.143 | 0.01 | 1.5 | 0.0 | 116.944 | 0.855 | 0.0 | 15.723 | 0.862 | 32.98 |
| 0.95 | 19.986 | 0.082 | 0.16 | 1.5 | 0.0 | 243.732 | 0.41 | 0.0 | 18.986 | 0.413 | 24.25 |
| 0.96 | 24.983 | 0.112 | 0.35 | 1.6 | 0.0 | 223.063 | 0.448 | 0.0 | 23.983 | 0.451 | 21.26 |
| 0.97 | 34.568 | 0.102 | 0.04 | 1.7 | 0.0 | 338.902 | 0.295 | 0.0 | 33.568 | 0.296 | 14.73 |
| 0.98 | 40.686 | 0.031 | 0.04 | 1.6 | 0.0 | 1312.452 | 0.076 | 0.0 | 39.686 | 0.076 | 9.78 |
| 0.99 | 45.785 | 0.01 | 0.03 | 1.6 | 0.0 | 4578.5 | 0.022 | 0.0 | 44.785 | 0.022 | 9.71 |
| 1.00 | 43.133 | 0.0 | 0.01 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 42.133 | 0.0 | 19.41 |
| 1.01 | 29.571 | 0.0 | 0.02 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 28.571 | 0.0 | 24.61 |
| 1.02 | 30.081 | 0.0 | 0.02 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 29.081 | 0.0 | 24.35 |
| 1.03 | 40.788 | 0.0 | 0.01 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 39.788 | 0.0 | 20.12 |
| 1.04 | 34.874 | 0.0 | 0.01 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 | 33.874 | 0.0 | 22.22 |
| 1.05 | 42.929 | 0.031 | 0.02 | 1.2 | 0.0 | 1384.806 | 0.072 | 0.0 | 41.929 | 0.072 | 9.2 |
| 1.06 | 43.949 | 0.112 | 0.02 | 1.1 | 0.0 | 392.402 | 0.255 | 0.0 | 42.949 | 0.256 | 11.41 |
| 1.07 | 33.65 | 0.653 | -0.01 | 1.0 | 0.0 | 51.531 | 1.941 | 0.0 | 32.65 | 1.95 | 29.41 |
| 1.08 | 28.348 | 0.908 | 0.00 | 1.1 | 0.0 | 31.22 | 3.203 | 0.0 | 27.348 | 3.221 | 38.79 |
| 1.09 | 23.963 | 1.071 | 0.03 | 1.1 | 0.0 | 22.374 | 4.469 | 0.0 | 22.963 | 4.5 | 47.2 |
| 1.10 | 22.535 | 1.111 | 0.03 | 1.1 | 0.0 | 20.284 | 4.93 | 0.0 | 21.535 | 4.966 | 50.15 |
| 1.11 | 22.026 | 0.918 | 0.02 | 1.2 | 0.0 | 23.993 | 4.168 | 0.0 | 21.026 | 4.199 | 47.73 |
| 1.12 | 23.657 | 0.683 | 0.01 | 1.3 | 0.0 | 34.637 | 2.887 | 0.0 | 22.657 | 2.907 | 40.62 |
| 1.13 | 24.575 | 0.632 | 0.02 | 1.4 | 0.0 | 38.884 | 2.572 | 0.0 | 23.575 | 2.589 | 38.28 |
| 1.14 | 24.677 | 0.591 | 0.02 | 1.5 | 0.0 | 41.755 | 2.395 | 0.0 | 23.677 | 2.411 | 37.24 |
| 1.15 | 20.904 | 0.52 | -0.03 | 1.7 | 0.0 | 40.2 | 2.488 | 0.0 | 19.904 | 2.508 | 40.9 |
| 1.16 | 10.707 | 0.612 | -0.01 | 1.7 | 0.0 | 17.495 | 5.716 | 0.0 | 9.707 | 5.808 | 71.32 |
| 1.17 | 7.036 | 0.816 | 0.00 | 1.7 | 0.0 | 8.623 | 11.597 | 0.0 | 6.036 | 11.888 | 102.35 |
| 1.18 | 16.111 | 0.948 | 0.00 | 1.8 | 0.0 | 16.995 | 5.884 | 0.0 | 15.111 | 5.948 | 61.03 |
| 1.19 | 19.782 | 0.887 | 0.01 | 1.8 | 0.0 | 22.302 | 4.484 | 0.0 | 18.782 | 4.524 | 51.26 |
| 1.20 | 22.331 | 0.897 | 0.12 | 2.0 | 0.0 | 24.895 | 4.017 | 0.0 | 21.331 | 4.049 | 46.85 |
| 1.21 | 23.453 | 0.938 | -0.01 | 2.2 | 0.0 | 25.003 | 3.999 | 0.0 | 22.453 | 4.03 | 45.8 |
| 1.22 | 17.539 | 0.887 | 0.00 | 2.3 | 0.0 | 19.773 | 5.057 | 0.0 | 16.539 | 5.109 | 56.12 |
| 1.23 | 9.177 | 0.989 | 0.02 | 2.3 | 0.0 | 9.279 | 10.777 | 0.0 | 8.177 | 10.993 | 90.92 |
| 1.24 | 2.549 | 1.244 | 0.02 | 2.3 | 0.0 | 2.049 | 48.803 | 0.0 | 1.549 | 52.547 | 213.02 |
| 1.25 | 2.753 | 0.826 | 0.01 | 2.3 | 0.0 | 3.333 | 30.004 | 0.0 | 1.753 | 32.14 | 185.43 |
| 1.26 | 6.118 | 0.591 | 0.00 | 2.3 | 0.0 | 10.352 | 9.66 | 0.0 | 5.118 | 9.96 | 102.95 |
| 1.27 | 17.845 | 0.449 | 0.00 | 2.4 | 0.0 | 39.744 | 2.516 | 0.0 | 16.845 | 2.543 | 44.3 |
| 1.28 | 18.966 | 0.367 | 0.00 | 2.3 | 0.0 | 51.678 | 1.935 | 0.0 | 17.966 | 1.954 | 39.49 |
| 1.29 | 29.979 | 0.469 | 0.00 | 2.3 | 0.0 | 63.921 | 1.564 | 0.0 | 28.979 | 1.574 | 28.82 |
| 1.30 | 32.426 | 0.479 | 0.10 | 2.4 | 0.0 | 67.695 | 1.477 | 0.0 | 31.426 | 1.486 | 27 |
| 1.31 | 33.65 | 0.449 | -0.02 | 2.3 | 0.0 | 74.944 | 1.334 | 0.0 | 32.65 | 1.342 | 25.42 |
| 1.32 | 25.391 | 0.459 | 0.06 | 2.3 | 0.0 | 55.318 | 1.808 | 0.0 | 24.391 | 1.822 | 33.22 |
| 1.33 | 24.473 | 0.428 | 0.12 | 2.3 | 0.0 | 57.18 | 1.749 | 0.0 | 23.473 | 1.763 | 33.47 |
| 1.34 | 18.966 | 0.326 | 0.00 | 2.4 | 0.0 | 58.178 | 1.719 | 0.0 | 17.966 | 1.737 | 38.02 |
| 1.35 | 9.891 | 0.377 | 0.00 | 2.5 | 0.0 | 26.236 | 3.812 | 0.0 | 8.891 | 3.889 | 65.73 |

Prova n. 1

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|--------|---------|-----|--------|---------|--------|
| 1.36 | 8.769 | 0.296 | 0.00 | 2.5 | 0.0 | 29.625 | 3.376 | 0.0 | 7.769 | 3.454 | 67.08 |
| 1.37 | 5.098 | 0.296 | 0.00 | 2.5 | 0.0 | 17.223 | 5.806 | 0.0 | 4.098 | 6.043 | 97.84 |
| 1.38 | 4.283 | 0.224 | 0.00 | 2.5 | 0.0 | 19.121 | 5.23 | 0.0 | 3.283 | 5.488 | 103.23 |
| 1.39 | 2.753 | 0.204 | 0.00 | 2.5 | 0.0 | 13.495 | 7.41 | 0.0 | 1.753 | 7.999 | 137.62 |
| 1.40 | 2.243 | 0.194 | 0.00 | 2.4 | 0.0 | 11.562 | 8.649 | 0.0 | 1.243 | 9.515 | 158.36 |
| 1.41 | 0.51 | 0.153 | 0.00 | 2.4 | 0.0 | 3.333 | 30.0 | 0.0 | -0.49 | 50.268 | 0 |
| 1.42 | 1.02 | 0.071 | 0.00 | 2.4 | 0.0 | 14.366 | 6.961 | 0.0 | 0.02 | 8.734 | 469.78 |
| 1.43 | 0.612 | 0.031 | 0.00 | 2.4 | 0.0 | 19.742 | 5.065 | 0.0 | -0.388 | 7.682 | 0 |
| 1.44 | 0.408 | 0.01 | 0.00 | 2.4 | 0.0 | 40.8 | 2.451 | 0.0 | -0.592 | 5.047 | 0 |
| 1.45 | 0.51 | 0.01 | 0.00 | 2.4 | 0.0 | 51.0 | 1.961 | 0.0 | -0.49 | 3.348 | 0 |
| 1.46 | 0.408 | 0.01 | 0.01 | 2.4 | 0.0 | 40.8 | 2.451 | 0.0 | -0.592 | 5.12 | 0 |
| 1.47 | 0.612 | 0.01 | 0.00 | 2.4 | 0.0 | 61.2 | 1.634 | 0.0 | -0.388 | 2.513 | 0 |
| 1.48 | 0.612 | 0.0 | 0.00 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | -0.388 | 0.0 | 0 |
| 1.49 | 0.816 | 0.0 | 0.00 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | -0.184 | 0.0 | 0 |
| 1.50 | 0.918 | 0.0 | 0.01 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | -0.082 | 0.0 | 0 |
| 1.51 | 1.53 | 0.0 | 0.06 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.53 | 0.0 | 147.02 |
| 1.52 | 4.793 | 0.0 | 0.03 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 | 3.793 | 0.0 | 68.26 |
| 1.53 | 6.832 | 0.0 | 0.03 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.832 | 0.0 | 56.27 |
| 1.54 | 9.483 | 0.0 | 0.01 | 1.9 | 0.0 | 0.0 | 0.0 | 0.0 | 8.483 | 0.0 | 47.1 |
| 1.55 | 9.789 | 0.0 | -0.01 | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 | 8.789 | 0.0 | 46.3 |
| 1.56 | 11.319 | 0.0 | 0.00 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 10.319 | 0.0 | 42.76 |
| 1.57 | 11.523 | 0.0 | 0.00 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 10.523 | 0.0 | 42.34 |
| 1.58 | 14.582 | 0.0 | 0.01 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 13.582 | 0.0 | 37.16 |
| 1.59 | 16.825 | 0.0 | 0.01 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 15.825 | 0.0 | 34.28 |
| 1.60 | 18.661 | 0.0 | 0.01 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 17.661 | 0.0 | 32.31 |
| 1.61 | 20.802 | 0.0 | 0.01 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 19.802 | 0.0 | 30.34 |
| 1.62 | 22.637 | 0.0 | 0.01 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 21.637 | 0.0 | 28.88 |
| 1.63 | 26.818 | 0.0 | 0.00 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 25.818 | 0.0 | 26.11 |
| 1.64 | 30.591 | 0.0 | 0.01 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 29.591 | 0.0 | 24.1 |
| 1.65 | 41.91 | 0.0 | 0.01 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 40.91 | 0.0 | 19.77 |
| 1.66 | 45.173 | 0.0 | 0.01 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 44.173 | 0.0 | 18.83 |
| 1.67 | 49.353 | 0.0 | 0.00 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 48.353 | 0.0 | 17.76 |
| 1.68 | 50.067 | 0.0 | 0.03 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 49.067 | 0.0 | 17.59 |
| 1.69 | 73.011 | 0.0 | 0.01 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 72.011 | 0.0 | 13.55 |
| 1.70 | 85.145 | 0.0 | 0.04 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 84.145 | 0.0 | 12.11 |
| 1.71 | 68.116 | 0.0 | 0.00 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 67.116 | 0.0 | 14.24 |
| 1.72 | 44.051 | 0.0 | -0.04 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 43.051 | 0.0 | 19.14 |
| 1.73 | 14.888 | 0.296 | 0.02 | 1.2 | 0.0 | 50.297 | 1.988 | 0.0 | 13.888 | 2.022 | 45.02 |
| 1.74 | 22.739 | 0.377 | 0.02 | 1.3 | 0.0 | 60.316 | 1.658 | 0.0 | 21.739 | 1.677 | 34.19 |
| 1.75 | 20.19 | 0.398 | -0.01 | 1.4 | 0.0 | 50.729 | 1.971 | 0.0 | 19.19 | 1.996 | 38.54 |
| 1.76 | 3.263 | 0.755 | 0.00 | 1.4 | 0.0 | 4.322 | 23.138 | 0.0 | 2.263 | 25.1 | 163.93 |
| 1.77 | 3.059 | 0.857 | 0.00 | 1.4 | 0.0 | 3.569 | 28.016 | 0.0 | 2.059 | 30.58 | 175.82 |
| 1.78 | 2.141 | 1.02 | 0.00 | 1.5 | 0.0 | 2.099 | 47.641 | 0.0 | 1.141 | 54.166 | 230.82 |
| 1.79 | 0.612 | 1.03 | 0.00 | 1.5 | 0.0 | 0.594 | 168.301 | 0.0 | -0.388 | 292.045 | 0 |
| 1.80 | 0.714 | 0.979 | 0.00 | 1.5 | 0.0 | 0.729 | 137.115 | 0.0 | -0.286 | 215.985 | 0 |
| 1.81 | 0.612 | 0.979 | 0.00 | 1.5 | 0.0 | 0.625 | 159.967 | 0.0 | -0.388 | 279.827 | 0 |
| 1.82 | 0.612 | 0.959 | 0.00 | 1.5 | 0.0 | 0.638 | 156.699 | 0.0 | -0.388 | 275.222 | 0 |
| 1.83 | 0.612 | 0.938 | 0.00 | 1.4 | 0.0 | 0.652 | 153.268 | 0.0 | -0.388 | 270.291 | 0 |
| 1.84 | 0.612 | 0.989 | 0.00 | 1.4 | 0.0 | 0.619 | 161.601 | 0.0 | -0.388 | 286.152 | 0 |
| 1.85 | 0.612 | 0.989 | 0.00 | 1.4 | 0.0 | 0.619 | 161.601 | 0.0 | -0.388 | 287.326 | 0 |
| 1.86 | 0.612 | 0.989 | 0.00 | 1.4 | 0.0 | 0.619 | 161.601 | 0.0 | -0.388 | 288.51 | 0 |
| 1.87 | 0.408 | 0.245 | 0.00 | 1.5 | 0.0 | 1.665 | 60.049 | 0.0 | -0.592 | 178.334 | 0 |
| 1.88 | 0.612 | 0.214 | 0.00 | 1.5 | 0.0 | 2.86 | 34.967 | 0.0 | -0.388 | 62.947 | 0 |
| 1.89 | 0.714 | 0.265 | 0.00 | 1.5 | 0.0 | 2.694 | 37.115 | 0.0 | -0.286 | 60.151 | 0 |
| 1.90 | 0.714 | 0.0 | 0.00 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | -0.286 | 0.0 | 0 |
| 1.91 | 0.51 | 0.0 | 0.00 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | -0.49 | 0.0 | 0 |
| 1.92 | 0.204 | 0.0 | 0.01 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | -0.796 | 0.0 | 0 |
| 1.93 | 0.204 | 0.0 | 0.01 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | -0.796 | 0.0 | 0 |
| 1.94 | 0.102 | 0.0 | 0.01 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | -0.898 | 0.0 | 0 |
| 1.95 | 0.102 | 0.0 | 0.01 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | -0.898 | 0.0 | 0 |
| 1.96 | 0.102 | 0.0 | 0.01 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | -0.898 | 0.0 | 0 |
| 1.97 | 1.733 | 0.0 | 0.02 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.733 | 0.0 | 131.03 |
| 1.98 | 2.651 | 0.0 | 0.00 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 1.651 | 0.0 | 96.43 |

Prova n. 1

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|--------|
| 1.99 | 1.632 | 0.0 | -0.01 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.632 | 0.0 | 138.18 |
| 2.00 | 0.612 | 0.0 | 0.00 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | -0.388 | 0.0 | 0 |
| 2.01 | 2.243 | 0.0 | 0.34 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 1.243 | 0.0 | 107.68 |
| 2.02 | 2.345 | 0.0 | 0.01 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 1.345 | 0.0 | 104.46 |
| 2.03 | 2.753 | 0.0 | 0.03 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 1.753 | 0.0 | 94.16 |
| 2.04 | 3.671 | 0.0 | 0.02 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 2.671 | 0.0 | 79.3 |
| 2.05 | 2.447 | 0.0 | 0.00 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 1.447 | 0.0 | 101.54 |
| 2.06 | 0.204 | 0.0 | -0.02 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | -0.796 | 0.0 | 0 |
| 2.07 | 0.204 | 0.0 | -0.01 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | -0.796 | 0.0 | 0 |
| 2.08 | 0.306 | 0.0 | 0.00 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | -0.694 | 0.0 | 0 |
| 2.09 | 0.306 | 0.0 | 0.00 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | -0.694 | 0.0 | 0 |
| 2.10 | 0.306 | 0.0 | 0.00 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | -0.694 | 0.0 | 0 |
| 2.11 | 0.306 | 0.0 | 0.00 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | -0.694 | 0.0 | 0 |
| 2.12 | 0.306 | 0.0 | 0.00 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | -0.694 | 0.0 | 0 |
| 2.13 | 1.53 | 0.0 | 0.00 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.53 | 0.0 | 147.02 |
| 2.14 | 3.263 | 0.0 | 0.00 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 2.263 | 0.0 | 84.94 |
| 2.15 | 7.546 | 0.0 | 0.00 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 6.546 | 0.0 | 53.32 |
| 2.16 | 7.954 | 0.0 | 0.00 | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 | 6.954 | 0.0 | 51.82 |
| 2.17 | 11.013 | 0.0 | 0.01 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.013 | 0.0 | 43.41 |
| 2.18 | 18.864 | 0.0 | 0.01 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 17.864 | 0.0 | 32.11 |
| 2.19 | 19.068 | 0.0 | 0.01 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 18.068 | 0.0 | 31.91 |
| 2.20 | 21.312 | 0.0 | 0.04 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 20.312 | 0.0 | 29.91 |
| 2.21 | 21.414 | 0.0 | 0.09 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 20.414 | 0.0 | 29.83 |
| 2.22 | 21.312 | 0.0 | -0.04 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 20.312 | 0.0 | 29.91 |
| 2.23 | 19.17 | 0.0 | 0.00 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 18.17 | 0.0 | 31.81 |
| 2.24 | 18.151 | 0.0 | 0.00 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 17.151 | 0.0 | 32.82 |
| 2.25 | 12.542 | 0.0 | 0.00 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.542 | 0.0 | 40.41 |
| 2.26 | 9.075 | 0.031 | 0.00 | 1.9 | 0.0 | 292.742 | 0.342 | 0.0 | 8.075 | 0.354 | 39.18 |
| 2.27 | 17.029 | 0.0 | 0.00 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 16.029 | 0.0 | 34.04 |
| 2.28 | 20.904 | 0.0 | 0.00 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 19.904 | 0.0 | 30.25 |
| 2.29 | 27.736 | 0.0 | 0.00 | 2.8 | 0.0 | 0.0 | 0.0 | 0.0 | 26.736 | 0.0 | 25.58 |
| 2.30 | 4.895 | 0.0 | 0.00 | 4.6 | 0.0 | 0.0 | 0.0 | 0.0 | 3.895 | 0.0 | 67.48 |
| 2.31 | 14.276 | 0.0 | 0.01 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 13.276 | 0.0 | 37.6 |
| 2.32 | 17.845 | 0.0 | 0.00 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 16.845 | 0.0 | 33.15 |
| 2.33 | 19.884 | 0.0 | 0.01 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 18.884 | 0.0 | 31.15 |
| 2.34 | 20.394 | 0.0 | 0.00 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 19.394 | 0.0 | 30.69 |
| 2.35 | 11.115 | 0.0 | 0.00 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 10.115 | 0.0 | 43.19 |
| 2.36 | 2.855 | 0.0 | 0.00 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 1.855 | 0.0 | 92.06 |
| 2.37 | 1.326 | 0.0 | 0.01 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.326 | 0.0 | 173.51 |
| 2.38 | 1.428 | 0.0 | 0.00 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.428 | 0.0 | 158.29 |
| 2.39 | 1.224 | 0.0 | 0.00 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.224 | 0.0 | 196.15 |
| 2.40 | 1.224 | 0.0 | 0.01 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.224 | 0.0 | 196.15 |
| 2.41 | 1.122 | 0.0 | 0.00 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.122 | 0.0 | 237.1 |
| 2.42 | 1.02 | 0.0 | 0.06 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.02 | 0.0 | 394.28 |
| 2.43 | 3.161 | 0.0 | 0.06 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 2.161 | 0.0 | 86.55 |
| 2.44 | 3.365 | 0.0 | 0.06 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 | 2.365 | 0.0 | 83.41 |
| 2.45 | 3.161 | 0.0 | 0.06 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 2.161 | 0.0 | 86.55 |
| 2.46 | 3.977 | 0.0 | 0.02 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 2.977 | 0.0 | 75.76 |
| 2.47 | 2.957 | 0.0 | 0.02 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 1.957 | 0.0 | 90.1 |
| 2.48 | 2.855 | 0.01 | 0.05 | 1.5 | 0.0 | 285.5 | 0.35 | 0.0 | 1.855 | 0.4 | 81.53 |
| 2.49 | 3.569 | 0.01 | 0.07 | 1.5 | 0.0 | 356.9 | 0.28 | 0.0 | 2.569 | 0.311 | 68.59 |
| 2.50 | 2.753 | 0.0 | 0.03 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 1.753 | 0.0 | 94.16 |
| 2.51 | 3.365 | 0.0 | 0.01 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 2.365 | 0.0 | 83.41 |
| 2.52 | 2.549 | 0.0 | -0.04 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 1.549 | 0.0 | 98.88 |
| 2.53 | 1.326 | 0.0 | 0.11 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.326 | 0.0 | 173.51 |
| 2.54 | 2.243 | 0.0 | 0.09 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 1.243 | 0.0 | 107.68 |
| 2.55 | 2.753 | 0.0 | 0.03 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 1.753 | 0.0 | 94.16 |
| 2.56 | 2.753 | 0.0 | 0.03 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 1.753 | 0.0 | 94.16 |
| 2.57 | 2.855 | 0.0 | 0.03 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 1.855 | 0.0 | 92.06 |
| 2.58 | 2.549 | 0.0 | 0.01 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 1.549 | 0.0 | 98.88 |
| 2.59 | 1.733 | 0.0 | 0.03 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.733 | 0.0 | 131.03 |
| 2.60 | 1.53 | 0.0 | 0.04 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.53 | 0.0 | 147.02 |
| 2.61 | 1.53 | 0.0 | 0.10 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.53 | 0.0 | 147.02 |

Prova n. 1

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|--------|
| 2.62 | 1.53 | 0.0 | 0.13 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.53 | 0.0 | 147.02 |
| 2.63 | 1.53 | 0.0 | 0.26 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.53 | 0.0 | 147.02 |
| 2.64 | 1.835 | 0.0 | 0.30 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.835 | 0.0 | 124.97 |
| 2.65 | 1.937 | 0.0 | 0.37 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.937 | 0.0 | 119.77 |
| 2.66 | 2.141 | 0.0 | 0.32 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 1.141 | 0.0 | 111.24 |
| 2.67 | 2.141 | 0.0 | 0.32 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 1.141 | 0.0 | 111.24 |
| 2.68 | 2.345 | 0.0 | 0.34 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 1.345 | 0.0 | 104.46 |
| 2.69 | 2.651 | 0.0 | 0.35 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 1.651 | 0.0 | 96.43 |
| 2.70 | 2.855 | 0.0 | 0.35 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 1.855 | 0.0 | 92.06 |
| 2.71 | 3.161 | 0.0 | 0.33 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 2.161 | 0.0 | 86.55 |
| 2.72 | 3.671 | 0.0 | 0.30 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 2.671 | 0.0 | 79.3 |
| 2.73 | 4.079 | 0.0 | 0.30 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 3.079 | 0.0 | 74.69 |
| 2.74 | 4.793 | 0.0 | 0.33 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 3.793 | 0.0 | 68.26 |
| 2.75 | 5.914 | 0.0 | 0.37 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 4.914 | 0.0 | 60.85 |
| 2.76 | 7.546 | 0.0 | 0.38 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 6.546 | 0.0 | 53.32 |
| 2.77 | 9.381 | 0.0 | 0.36 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 8.381 | 0.0 | 47.38 |
| 2.78 | 10.809 | 0.0 | 0.32 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 9.809 | 0.0 | 43.86 |
| 2.79 | 11.319 | 0.0 | 0.27 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 10.319 | 0.0 | 42.76 |
| 2.80 | 7.036 | 0.0 | 0.29 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 6.036 | 0.0 | 55.38 |
| 2.81 | 11.625 | 0.0 | 0.31 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 10.625 | 0.0 | 42.14 |
| 2.82 | 11.421 | 0.0 | 0.34 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 10.421 | 0.0 | 42.55 |
| 2.83 | 11.93 | 0.0 | 0.39 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 10.93 | 0.0 | 41.54 |
| 2.84 | 8.565 | 0.0 | 0.52 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 7.565 | 0.0 | 49.78 |
| 2.85 | 8.565 | 0.0 | 0.52 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 7.565 | 0.0 | 49.78 |
| 2.86 | 8.565 | 0.0 | 0.52 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 7.565 | 0.0 | 49.78 |
| 2.87 | 15.092 | 0.0 | -0.33 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 14.092 | 0.0 | 36.45 |
| 2.88 | 14.174 | 0.0 | -0.22 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 13.174 | 0.0 | 37.75 |
| 2.89 | 13.358 | 0.0 | -0.22 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 12.358 | 0.0 | 39.02 |
| 2.90 | 12.848 | 0.0 | -0.20 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 11.848 | 0.0 | 39.87 |
| 2.91 | 12.134 | 0.0 | -0.10 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 11.134 | 0.0 | 41.16 |
| 2.92 | 10.911 | 0.0 | 0.21 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 9.911 | 0.0 | 43.63 |
| 2.93 | 10.911 | 0.01 | 0.19 | 1.7 | 0.0 | 1091.1 | 0.092 | 0.0 | 9.911 | 0.095 | 29.88 |
| 2.94 | 11.013 | 0.01 | 0.24 | 1.7 | 0.0 | 1101.3 | 0.091 | 0.0 | 10.013 | 0.094 | 29.67 |
| 2.95 | 11.625 | 0.01 | 0.85 | 1.6 | 0.0 | 1162.5 | 0.086 | 0.0 | 10.625 | 0.089 | 28.48 |
| 2.96 | 12.542 | 0.01 | 1.15 | 1.6 | 0.0 | 1254.2 | 0.08 | 0.0 | 11.542 | 0.083 | 26.89 |
| 2.97 | 13.562 | 0.01 | 1.60 | 1.6 | 0.0 | 1356.2 | 0.074 | 0.0 | 12.562 | 0.076 | 25.33 |
| 2.98 | 14.99 | 0.01 | 1.38 | 1.6 | 0.0 | 1499.0 | 0.067 | 0.0 | 13.99 | 0.069 | 23.45 |
| 2.99 | 17.437 | 0.02 | 0.66 | 1.6 | 0.0 | 871.85 | 0.115 | 0.0 | 16.437 | 0.118 | 21.53 |
| 3.00 | 19.374 | 0.031 | 0.32 | 1.6 | 0.0 | 624.968 | 0.16 | 0.0 | 18.374 | 0.164 | 20.65 |
| 3.01 | 21.618 | 0.071 | 0.06 | 1.6 | 0.0 | 304.479 | 0.328 | 0.0 | 20.618 | 0.335 | 21.82 |
| 3.02 | 23.657 | 0.122 | -0.11 | 1.6 | 0.0 | 193.91 | 0.516 | 0.0 | 22.657 | 0.525 | 23.06 |
| 3.03 | 24.473 | 0.153 | -0.33 | 1.6 | 0.0 | 159.954 | 0.625 | 0.0 | 23.473 | 0.636 | 23.87 |
| 3.04 | 24.269 | 0.163 | -0.45 | 1.6 | 0.0 | 148.89 | 0.672 | 0.0 | 23.269 | 0.684 | 24.54 |
| 3.05 | 22.739 | 0.163 | -0.54 | 1.5 | 0.0 | 139.503 | 0.717 | 0.0 | 21.739 | 0.731 | 26.1 |
| 3.06 | 21.516 | 0.173 | -0.55 | 1.6 | 0.0 | 124.37 | 0.804 | 0.0 | 20.516 | 0.821 | 27.98 |
| 3.07 | 19.782 | 0.184 | -0.54 | 1.6 | 0.0 | 107.511 | 0.93 | 0.0 | 18.782 | 0.951 | 30.77 |
| 3.08 | 18.253 | 0.173 | -0.52 | 1.6 | 0.0 | 105.509 | 0.948 | 0.0 | 17.253 | 0.971 | 32.44 |
| 3.09 | 16.825 | 0.153 | -0.51 | 1.7 | 0.0 | 109.967 | 0.909 | 0.0 | 15.825 | 0.934 | 33.61 |
| 3.10 | 15.805 | 0.133 | -0.51 | 1.7 | 0.0 | 118.835 | 0.842 | 0.0 | 14.805 | 0.866 | 34.12 |
| 3.11 | 15.805 | 0.112 | -0.50 | 1.7 | 0.0 | 141.116 | 0.709 | 0.0 | 14.805 | 0.729 | 32.59 |
| 3.12 | 17.845 | 0.102 | -0.48 | 1.7 | 0.0 | 174.951 | 0.572 | 0.0 | 16.845 | 0.586 | 28.56 |
| 3.13 | 20.598 | 0.092 | -0.17 | 1.7 | 0.0 | 223.891 | 0.447 | 0.0 | 19.598 | 0.457 | 24.37 |
| 3.14 | 26.002 | 0.102 | -0.10 | 1.6 | 0.0 | 254.922 | 0.392 | 0.0 | 25.002 | 0.399 | 19.97 |
| 3.15 | 32.528 | 0.092 | -0.27 | 1.6 | 0.0 | 353.565 | 0.283 | 0.0 | 31.528 | 0.287 | 15.35 |
| 3.16 | 33.65 | 0.071 | -0.37 | 1.6 | 0.0 | 473.944 | 0.211 | 0.0 | 32.65 | 0.214 | 13.83 |
| 3.17 | 28.144 | 0.041 | -0.39 | 1.5 | 0.0 | 686.439 | 0.146 | 0.0 | 27.144 | 0.148 | 15.02 |
| 3.18 | 25.9 | 0.041 | -0.28 | 1.5 | 0.0 | 631.707 | 0.158 | 0.0 | 24.9 | 0.161 | 16.34 |
| 3.19 | 27.634 | 0.051 | -0.31 | 1.5 | 0.0 | 541.843 | 0.185 | 0.0 | 26.634 | 0.188 | 15.91 |
| 3.20 | 32.528 | 0.041 | -0.29 | 1.5 | 0.0 | 793.366 | 0.126 | 0.0 | 31.528 | 0.128 | 12.9 |
| 3.21 | 33.752 | 0.041 | -0.14 | 1.5 | 0.0 | 823.22 | 0.121 | 0.0 | 32.752 | 0.123 | 12.39 |
| 3.22 | 27.226 | 0.02 | -0.20 | 1.4 | 0.0 | 1361.3 | 0.073 | 0.0 | 26.226 | 0.075 | 14.44 |
| 3.23 | 21.72 | 0.061 | -0.19 | 1.5 | 0.0 | 356.066 | 0.281 | 0.0 | 20.72 | 0.287 | 20.99 |
| 3.24 | 16.723 | 0.122 | -0.16 | 1.5 | 0.0 | 137.074 | 0.73 | 0.0 | 15.723 | 0.75 | 31.75 |

Prova n. 1

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|---------|-------|-----|--------|--------|-------|
| 3.25 | 13.358 | 0.163 | -0.13 | 1.5 | 0.0 | 81.951 | 1.22 | 0.0 | 12.358 | 1.264 | 41.57 |
| 3.26 | 10.605 | 0.143 | 0.37 | 1.5 | 0.0 | 74.161 | 1.348 | 0.0 | 9.605 | 1.411 | 48.31 |
| 3.27 | 8.871 | 0.163 | 0.60 | 1.5 | 0.0 | 54.423 | 1.837 | 0.0 | 7.871 | 1.94 | 57.35 |
| 3.28 | 6.73 | 0.224 | 1.88 | 1.5 | 0.0 | 30.045 | 3.328 | 0.0 | 5.73 | 3.578 | 76.19 |
| 3.29 | 8.565 | 0.265 | 2.52 | 1.5 | 0.0 | 32.321 | 3.094 | 0.0 | 7.565 | 3.274 | 66.83 |
| 3.30 | 36.403 | 0.326 | 0.96 | 1.5 | 0.0 | 111.666 | 0.896 | 0.0 | 35.403 | 0.907 | 20.83 |
| 3.31 | 61.896 | 0.337 | 0.56 | 1.7 | 0.0 | 183.668 | 0.544 | 0.0 | 60.896 | 0.549 | 11.36 |
| 3.32 | 66.994 | 0.367 | 0.10 | 1.7 | 0.0 | 182.545 | 0.548 | 0.0 | 65.994 | 0.552 | 10.64 |
| 3.33 | 78.619 | 0.408 | -0.09 | 1.6 | 0.0 | 192.694 | 0.519 | 0.0 | 77.619 | 0.522 | 8.94 |
| 3.34 | 85.043 | 0.459 | -0.03 | 1.7 | 0.0 | 185.279 | 0.54 | 0.0 | 84.043 | 0.543 | 8.48 |
| 3.35 | 79.129 | 0.459 | -0.01 | 1.8 | 0.0 | 172.394 | 0.58 | 0.0 | 78.129 | 0.584 | 9.45 |
| 3.36 | 76.07 | 0.469 | 0.11 | 1.7 | 0.0 | 162.196 | 0.617 | 0.0 | 75.07 | 0.62 | 10.13 |
| 3.37 | 67.3 | 0.286 | 0.03 | 1.7 | 0.0 | 235.315 | 0.425 | 0.0 | 66.3 | 0.428 | 9.35 |
| 3.38 | 56.389 | 0.184 | 0.07 | 1.7 | 0.0 | 306.462 | 0.326 | 0.0 | 55.389 | 0.329 | 9.86 |
| 3.39 | 53.636 | 0.153 | 0.01 | 1.7 | 0.0 | 350.562 | 0.285 | 0.0 | 52.636 | 0.288 | 9.82 |
| 3.40 | 45.683 | 0.489 | -0.02 | 1.7 | 0.0 | 93.421 | 1.07 | 0.0 | 44.683 | 1.082 | 19.34 |
| 3.41 | 39.055 | 0.5 | 0.02 | 1.7 | 0.0 | 78.11 | 1.28 | 0.0 | 38.055 | 1.296 | 22.98 |
| 3.42 | 27.226 | 0.765 | 0.10 | 1.7 | 0.0 | 35.59 | 2.81 | 0.0 | 26.226 | 2.861 | 37.81 |
| 3.43 | 26.002 | 0.683 | 0.12 | 1.7 | 0.0 | 38.07 | 2.627 | 0.0 | 25.002 | 2.677 | 37.71 |
| 3.44 | 23.759 | 0.642 | 0.12 | 1.7 | 0.0 | 37.008 | 2.702 | 0.0 | 22.759 | 2.759 | 39.79 |
| 3.45 | 21.924 | 0.673 | 0.14 | 1.7 | 0.0 | 32.577 | 3.07 | 0.0 | 20.924 | 3.14 | 43.22 |
| 3.46 | 18.762 | 0.724 | 0.15 | 1.7 | 0.0 | 25.914 | 3.859 | 0.0 | 17.762 | 3.963 | 50.14 |
| 3.47 | 17.233 | 0.836 | 0.17 | 1.7 | 0.0 | 20.614 | 4.851 | 0.0 | 16.233 | 4.995 | 56.11 |
| 3.48 | 15.499 | 0.867 | 0.30 | 1.8 | 0.0 | 17.877 | 5.594 | 0.0 | 14.499 | 5.78 | 61.41 |
| 3.49 | 11.93 | 0.908 | 0.52 | 1.8 | 0.0 | 13.139 | 7.611 | 0.0 | 10.93 | 7.944 | 75.03 |
| 3.50 | 9.789 | 0.969 | 0.53 | 1.8 | 0.0 | 10.102 | 9.899 | 0.0 | 8.789 | 10.433 | 87.5 |
| 3.51 | 10.095 | 0.877 | 0.61 | 1.8 | 0.0 | 11.511 | 8.687 | 0.0 | 9.095 | 9.142 | 83.26 |
| 3.52 | 10.299 | 0.897 | 0.47 | 1.8 | 0.0 | 11.482 | 8.71 | 0.0 | 9.299 | 9.157 | 82.69 |
| 3.53 | 10.605 | 0.785 | 0.39 | 1.8 | 0.0 | 13.51 | 7.402 | 0.0 | 9.605 | 7.772 | 77.95 |
| 3.54 | 10.707 | 0.785 | 0.39 | 1.8 | 0.0 | 13.639 | 7.332 | 0.0 | 9.707 | 7.696 | 77.44 |
| 3.55 | 10.809 | 0.806 | 0.51 | 1.8 | 0.0 | 13.411 | 7.457 | 0.0 | 9.809 | 7.824 | 77.54 |
| 3.56 | 10.911 | 0.816 | 0.55 | 1.8 | 0.0 | 13.371 | 7.479 | 0.0 | 9.911 | 7.845 | 77.32 |
| 3.57 | 11.013 | 0.846 | 0.52 | 1.8 | 0.0 | 13.018 | 7.682 | 0.0 | 10.013 | 8.055 | 77.65 |
| 3.58 | 11.115 | 0.826 | 0.50 | 1.8 | 0.0 | 13.456 | 7.431 | 0.0 | 10.115 | 7.79 | 76.62 |
| 3.59 | 11.319 | 0.693 | 0.50 | 1.8 | 0.0 | 16.333 | 6.122 | 0.0 | 10.319 | 6.413 | 71.82 |
| 3.60 | 11.523 | 0.632 | 0.49 | 1.8 | 0.0 | 18.233 | 5.485 | 0.0 | 10.523 | 5.741 | 69 |
| 3.61 | 11.523 | 0.612 | 0.48 | 1.8 | 0.0 | 18.828 | 5.311 | 0.0 | 10.523 | 5.56 | 68.35 |
| 3.62 | 11.625 | 0.612 | 0.48 | 1.8 | 0.0 | 18.995 | 5.265 | 0.0 | 10.625 | 5.51 | 67.92 |
| 3.63 | 11.523 | 0.51 | 0.46 | 1.8 | 0.0 | 22.594 | 4.426 | 0.0 | 10.523 | 4.635 | 64.77 |
| 3.64 | 11.319 | 0.51 | 0.43 | 1.8 | 0.0 | 22.194 | 4.506 | 0.0 | 10.319 | 4.723 | 65.61 |
| 3.65 | 11.115 | 0.52 | 0.41 | 1.8 | 0.0 | 21.375 | 4.678 | 0.0 | 10.115 | 4.909 | 66.87 |
| 3.66 | 11.115 | 0.53 | 0.38 | 1.8 | 0.0 | 20.972 | 4.768 | 0.0 | 10.115 | 5.004 | 67.24 |
| 3.67 | 11.319 | 0.53 | 0.37 | 1.8 | 0.0 | 21.357 | 4.682 | 0.0 | 10.319 | 4.91 | 66.37 |
| 3.68 | 11.319 | 0.52 | 0.34 | 1.8 | 0.0 | 21.767 | 4.594 | 0.0 | 10.319 | 4.818 | 66 |
| 3.69 | 11.217 | 0.53 | 0.34 | 1.9 | 0.0 | 21.164 | 4.725 | 0.0 | 10.217 | 4.958 | 66.81 |
| 3.70 | 11.217 | 0.551 | 0.33 | 1.9 | 0.0 | 20.358 | 4.912 | 0.0 | 10.217 | 5.155 | 67.58 |
| 3.71 | 11.115 | 0.561 | 0.31 | 1.9 | 0.0 | 19.813 | 5.047 | 0.0 | 10.115 | 5.3 | 68.39 |
| 3.72 | 11.115 | 0.581 | 0.28 | 1.9 | 0.0 | 19.131 | 5.227 | 0.0 | 10.115 | 5.49 | 69.1 |
| 3.73 | 11.217 | 0.581 | 0.27 | 1.9 | 0.0 | 19.306 | 5.18 | 0.0 | 10.217 | 5.438 | 68.65 |
| 3.74 | 11.217 | 0.591 | 0.25 | 1.9 | 0.0 | 18.98 | 5.269 | 0.0 | 10.217 | 5.533 | 69 |
| 3.75 | 11.421 | 0.602 | 0.24 | 1.9 | 0.0 | 18.972 | 5.271 | 0.0 | 10.421 | 5.531 | 68.49 |
| 3.76 | 11.421 | 0.591 | 0.22 | 1.9 | 0.0 | 19.325 | 5.175 | 0.0 | 10.421 | 5.43 | 68.12 |
| 3.77 | 11.319 | 0.581 | 0.22 | 1.9 | 0.0 | 19.482 | 5.133 | 0.0 | 10.319 | 5.39 | 68.22 |
| 3.78 | 11.217 | 0.571 | 0.22 | 1.9 | 0.0 | 19.644 | 5.09 | 0.0 | 10.217 | 5.348 | 68.31 |
| 3.79 | 11.115 | 0.561 | 0.21 | 1.9 | 0.0 | 19.813 | 5.047 | 0.0 | 10.115 | 5.306 | 68.41 |
| 3.80 | 11.115 | 0.551 | 0.20 | 1.9 | 0.0 | 20.172 | 4.957 | 0.0 | 10.115 | 5.212 | 68.05 |
| 3.81 | 11.013 | 0.551 | 0.19 | 1.9 | 0.0 | 19.987 | 5.003 | 0.0 | 10.013 | 5.264 | 68.5 |
| 3.82 | 10.605 | 0.561 | 0.20 | 1.9 | 0.0 | 18.904 | 5.29 | 0.0 | 9.605 | 5.577 | 70.75 |
| 3.83 | 8.056 | 0.561 | 0.20 | 1.9 | 0.0 | 14.36 | 6.964 | 0.0 | 7.056 | 7.472 | 85.72 |
| 3.84 | 8.056 | 0.561 | 0.20 | 1.9 | 0.0 | 14.36 | 6.964 | 0.0 | 7.056 | 7.473 | 85.72 |
| 3.85 | 8.056 | 0.561 | 0.20 | 1.9 | 0.0 | 14.36 | 6.964 | 0.0 | 7.056 | 7.474 | 85.73 |
| 3.86 | 8.056 | 0.561 | 0.20 | 1.9 | 0.0 | 14.36 | 6.964 | 0.0 | 7.056 | 7.476 | 85.73 |
| 3.87 | 10.503 | 0.489 | 0.21 | 1.9 | 0.0 | 21.479 | 4.656 | 0.0 | 9.503 | 4.915 | 68.48 |

Prova n. 1

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|--------|-----|--------|--------|-------|
| 3.88 | 10.605 | 0.489 | 0.22 | 1.9 | 0.0 | 21.687 | 4.611 | 0.0 | 9.605 | 4.865 | 68.01 |
| 3.89 | 10.605 | 0.479 | 0.21 | 1.9 | 0.0 | 22.14 | 4.517 | 0.0 | 9.605 | 4.767 | 67.61 |
| 3.90 | 10.605 | 0.469 | 0.21 | 1.9 | 0.0 | 22.612 | 4.422 | 0.0 | 9.605 | 4.668 | 67.2 |
| 3.91 | 10.605 | 0.459 | 0.19 | 1.9 | 0.0 | 23.105 | 4.328 | 0.0 | 9.605 | 4.569 | 66.78 |
| 3.92 | 10.707 | 0.479 | 0.19 | 1.9 | 0.0 | 22.353 | 4.474 | 0.0 | 9.707 | 4.721 | 67.15 |
| 3.93 | 10.707 | 0.489 | 0.20 | 1.9 | 0.0 | 21.896 | 4.567 | 0.0 | 9.707 | 4.82 | 67.55 |
| 3.94 | 11.013 | 0.5 | 0.20 | 1.9 | 0.0 | 22.026 | 4.54 | 0.0 | 10.013 | 4.785 | 66.62 |
| 3.95 | 11.217 | 0.5 | 0.20 | 1.9 | 0.0 | 22.434 | 4.458 | 0.0 | 10.217 | 4.694 | 65.74 |
| 3.96 | 11.523 | 0.5 | 0.24 | 1.9 | 0.0 | 23.046 | 4.339 | 0.0 | 10.523 | 4.563 | 64.47 |
| 3.97 | 11.93 | 0.5 | 0.29 | 1.9 | 0.0 | 23.86 | 4.191 | 0.0 | 10.93 | 4.4 | 62.86 |
| 3.98 | 12.542 | 0.5 | 0.31 | 1.9 | 0.0 | 25.084 | 3.987 | 0.0 | 11.542 | 4.176 | 60.58 |
| 3.99 | 12.95 | 0.489 | 0.34 | 1.9 | 0.0 | 26.483 | 3.776 | 0.0 | 11.95 | 3.95 | 58.76 |
| 4.00 | 13.868 | 0.479 | 0.37 | 1.9 | 0.0 | 28.952 | 3.454 | 0.0 | 12.868 | 3.602 | 55.46 |
| 4.01 | 13.97 | 0.479 | 0.39 | 1.9 | 0.0 | 29.165 | 3.429 | 0.0 | 12.97 | 3.575 | 55.16 |
| 4.02 | 13.97 | 0.479 | 0.40 | 1.9 | 0.0 | 29.165 | 3.429 | 0.0 | 12.97 | 3.576 | 55.16 |
| 4.03 | 14.072 | 0.479 | 0.41 | 1.9 | 0.0 | 29.378 | 3.404 | 0.0 | 13.072 | 3.549 | 54.86 |
| 4.04 | 14.072 | 0.479 | 0.41 | 1.9 | 0.0 | 29.378 | 3.404 | 0.0 | 13.072 | 3.55 | 54.86 |
| 4.05 | 14.276 | 0.479 | 0.38 | 1.9 | 0.0 | 29.804 | 3.355 | 0.0 | 13.276 | 3.497 | 54.26 |
| 4.06 | 14.378 | 0.489 | 0.37 | 1.9 | 0.0 | 29.403 | 3.401 | 0.0 | 13.378 | 3.544 | 54.31 |
| 4.07 | 14.174 | 0.51 | 0.37 | 1.9 | 0.0 | 27.792 | 3.598 | 0.0 | 13.174 | 3.752 | 55.63 |
| 4.08 | 14.072 | 0.53 | 0.38 | 1.9 | 0.0 | 26.551 | 3.766 | 0.0 | 13.072 | 3.929 | 56.6 |
| 4.09 | 14.174 | 0.54 | 0.39 | 1.9 | 0.0 | 26.248 | 3.81 | 0.0 | 13.174 | 3.974 | 56.62 |
| 4.10 | 14.378 | 0.551 | 0.38 | 1.9 | 0.0 | 26.094 | 3.832 | 0.0 | 13.378 | 3.995 | 56.37 |
| 4.11 | 14.276 | 0.571 | 0.39 | 1.9 | 0.0 | 25.002 | 4.0 | 0.0 | 13.276 | 4.171 | 57.31 |
| 4.12 | 14.378 | 0.581 | 0.41 | 1.9 | 0.0 | 24.747 | 4.041 | 0.0 | 13.378 | 4.213 | 57.31 |
| 4.13 | 14.684 | 0.591 | 0.44 | 1.9 | 0.0 | 24.846 | 4.025 | 0.0 | 13.684 | 4.193 | 56.72 |
| 4.14 | 14.888 | 0.602 | 0.48 | 1.9 | 0.0 | 24.731 | 4.044 | 0.0 | 13.888 | 4.211 | 56.46 |
| 4.15 | 15.194 | 0.612 | 0.50 | 1.9 | 0.0 | 24.827 | 4.028 | 0.0 | 14.194 | 4.191 | 55.89 |
| 4.16 | 15.907 | 0.622 | 0.52 | 1.9 | 0.0 | 25.574 | 3.91 | 0.0 | 14.907 | 4.062 | 54.26 |
| 4.17 | 17.539 | 0.653 | 0.54 | 1.9 | 0.0 | 26.859 | 3.723 | 0.0 | 16.539 | 3.854 | 51.14 |
| 4.18 | 18.355 | 0.653 | 0.56 | 1.9 | 0.0 | 28.109 | 3.558 | 0.0 | 17.355 | 3.677 | 49.37 |
| 4.19 | 18.864 | 0.673 | 0.60 | 1.9 | 0.0 | 28.03 | 3.568 | 0.0 | 17.864 | 3.685 | 48.81 |
| 4.20 | 19.272 | 0.683 | 0.60 | 1.9 | 0.0 | 28.217 | 3.544 | 0.0 | 18.272 | 3.658 | 48.24 |
| 4.21 | 19.884 | 0.673 | 0.57 | 1.9 | 0.0 | 29.545 | 3.385 | 0.0 | 18.884 | 3.49 | 46.83 |
| 4.22 | 20.292 | 0.673 | 0.57 | 1.9 | 0.0 | 30.152 | 3.317 | 0.0 | 19.292 | 3.418 | 46.08 |
| 4.23 | 20.19 | 0.693 | 0.55 | 1.9 | 0.0 | 29.134 | 3.432 | 0.0 | 19.19 | 3.538 | 46.73 |
| 4.24 | 19.68 | 0.734 | 0.55 | 1.9 | 0.0 | 26.812 | 3.73 | 0.0 | 18.68 | 3.848 | 48.62 |
| 4.25 | 19.272 | 0.785 | 0.54 | 1.9 | 0.0 | 24.55 | 4.073 | 0.0 | 18.272 | 4.206 | 50.56 |
| 4.26 | 19.272 | 0.816 | 0.54 | 1.9 | 0.0 | 23.618 | 4.234 | 0.0 | 18.272 | 4.372 | 51.23 |
| 4.27 | 19.17 | 0.846 | 0.52 | 1.9 | 0.0 | 22.66 | 4.413 | 0.0 | 18.17 | 4.558 | 52.07 |
| 4.28 | 18.559 | 0.887 | 0.50 | 1.9 | 0.0 | 20.923 | 4.779 | 0.0 | 17.559 | 4.942 | 54.23 |
| 4.29 | 17.641 | 0.938 | 0.51 | 1.9 | 0.0 | 18.807 | 5.317 | 0.0 | 16.641 | 5.508 | 57.4 |
| 4.30 | 16.927 | 0.979 | 0.53 | 1.9 | 0.0 | 17.29 | 5.784 | 0.0 | 15.927 | 6.001 | 60.02 |
| 4.31 | 16.621 | 1.01 | 0.52 | 1.9 | 0.0 | 16.456 | 6.077 | 0.0 | 15.621 | 6.31 | 61.45 |
| 4.32 | 16.315 | 1.02 | 0.51 | 1.9 | 0.0 | 15.995 | 6.252 | 0.0 | 15.315 | 6.498 | 62.49 |
| 4.33 | 16.009 | 1.04 | 0.49 | 1.9 | 0.0 | 15.393 | 6.496 | 0.0 | 15.009 | 6.757 | 63.76 |
| 4.34 | 15.703 | 1.06 | 0.47 | 1.9 | 0.0 | 14.814 | 6.75 | 0.0 | 14.703 | 7.028 | 65.05 |
| 4.35 | 14.786 | 1.122 | 0.46 | 1.9 | 0.0 | 13.178 | 7.588 | 0.0 | 13.786 | 7.921 | 69.15 |
| 4.36 | 13.766 | 1.183 | 0.46 | 1.9 | 0.0 | 11.637 | 8.594 | 0.0 | 12.766 | 9.001 | 73.92 |
| 4.37 | 12.95 | 1.203 | 0.46 | 1.9 | 0.0 | 10.765 | 9.29 | 0.0 | 11.95 | 9.76 | 77.5 |
| 4.38 | 12.44 | 1.224 | 0.46 | 1.9 | 0.0 | 10.163 | 9.839 | 0.0 | 11.44 | 10.36 | 80.09 |
| 4.39 | 11.115 | 1.193 | 0.54 | 1.9 | 0.0 | 9.317 | 10.733 | 0.0 | 10.115 | 11.375 | 85.74 |
| 4.40 | 10.809 | 1.162 | 0.56 | 1.9 | 0.0 | 9.302 | 10.75 | 0.0 | 9.809 | 11.413 | 86.69 |
| 4.41 | 10.605 | 1.111 | 0.57 | 1.9 | 0.0 | 9.545 | 10.476 | 0.0 | 9.605 | 11.137 | 86.65 |
| 4.42 | 10.605 | 1.06 | 0.58 | 1.9 | 0.0 | 10.005 | 9.995 | 0.0 | 9.605 | 10.628 | 85.46 |
| 4.43 | 10.707 | 0.989 | 0.58 | 1.9 | 0.0 | 10.826 | 9.237 | 0.0 | 9.707 | 9.817 | 83.19 |
| 4.44 | 10.911 | 0.928 | 0.58 | 1.9 | 0.0 | 11.758 | 8.505 | 0.0 | 9.911 | 9.03 | 80.6 |
| 4.45 | 11.013 | 0.867 | 0.59 | 1.9 | 0.0 | 12.702 | 7.873 | 0.0 | 10.013 | 8.354 | 78.5 |
| 4.46 | 11.013 | 0.826 | 0.59 | 1.9 | 0.0 | 13.333 | 7.5 | 0.0 | 10.013 | 7.96 | 77.38 |
| 4.47 | 11.013 | 0.775 | 0.59 | 1.9 | 0.0 | 14.21 | 7.037 | 0.0 | 10.013 | 7.47 | 75.94 |
| 4.48 | 10.911 | 0.714 | 0.59 | 1.9 | 0.0 | 15.282 | 6.544 | 0.0 | 9.911 | 6.951 | 74.61 |
| 4.49 | 10.605 | 0.642 | 0.60 | 1.9 | 0.0 | 16.519 | 6.054 | 0.0 | 9.605 | 6.443 | 73.79 |
| 4.50 | 9.789 | 0.5 | 0.60 | 1.9 | 0.0 | 19.578 | 5.108 | 0.0 | 8.789 | 5.466 | 72.68 |

Prova n. 1

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 4.51 | 9.483 | 0.438 | 0.60 | 1.9 | 0.0 | 21.651 | 4.619 | 0.0 | 8.483 | 4.955 | 71.62 |
| 4.52 | 9.381 | 0.398 | 0.60 | 1.9 | 0.0 | 23.57 | 4.243 | 0.0 | 8.381 | 4.556 | 70.27 |
| 4.53 | 9.381 | 0.398 | 0.60 | 1.9 | 0.0 | 23.57 | 4.243 | 0.0 | 8.381 | 4.557 | 70.28 |
| 4.54 | 9.279 | 0.347 | 0.59 | 1.9 | 0.0 | 26.741 | 3.74 | 0.0 | 8.279 | 4.02 | 68.2 |
| 4.55 | 9.279 | 0.337 | 0.58 | 1.9 | 0.0 | 27.534 | 3.632 | 0.0 | 8.279 | 3.905 | 67.65 |
| 4.56 | 9.075 | 0.326 | 0.57 | 1.9 | 0.0 | 27.837 | 3.592 | 0.0 | 8.075 | 3.87 | 68.14 |
| 4.57 | 8.973 | 0.326 | 0.57 | 1.9 | 0.0 | 27.525 | 3.633 | 0.0 | 7.973 | 3.918 | 68.71 |
| 4.58 | 8.871 | 0.326 | 0.58 | 2.0 | 0.0 | 27.212 | 3.675 | 0.0 | 7.871 | 3.967 | 69.29 |
| 4.59 | 8.667 | 0.326 | 0.59 | 2.0 | 0.0 | 26.586 | 3.761 | 0.0 | 7.667 | 4.069 | 70.47 |
| 4.60 | 8.158 | 0.316 | 0.63 | 2.0 | 0.0 | 25.816 | 3.873 | 0.0 | 7.158 | 4.212 | 73.02 |
| 4.61 | 8.158 | 0.306 | 0.63 | 2.0 | 0.0 | 26.66 | 3.751 | 0.0 | 7.158 | 4.08 | 72.4 |
| 4.62 | 8.056 | 0.296 | 0.64 | 2.0 | 0.0 | 27.216 | 3.674 | 0.0 | 7.056 | 4.002 | 72.42 |
| 4.63 | 7.954 | 0.286 | 0.64 | 2.0 | 0.0 | 27.811 | 3.596 | 0.0 | 6.954 | 3.921 | 72.43 |
| 4.64 | 7.954 | 0.275 | 0.65 | 2.0 | 0.0 | 28.924 | 3.457 | 0.0 | 6.954 | 3.771 | 71.69 |
| 4.65 | 7.852 | 0.265 | 0.65 | 2.0 | 0.0 | 29.63 | 3.375 | 0.0 | 6.852 | 3.686 | 71.67 |
| 4.66 | 7.75 | 0.255 | 0.66 | 2.0 | 0.0 | 30.392 | 3.29 | 0.0 | 6.75 | 3.599 | 71.64 |
| 4.67 | 7.648 | 0.255 | 0.66 | 2.0 | 0.0 | 29.992 | 3.334 | 0.0 | 6.648 | 3.652 | 72.34 |
| 4.68 | 7.648 | 0.235 | 0.67 | 2.0 | 0.0 | 32.545 | 3.073 | 0.0 | 6.648 | 3.367 | 70.83 |
| 4.69 | 7.648 | 0.224 | 0.67 | 2.0 | 0.0 | 34.143 | 2.929 | 0.0 | 6.648 | 3.21 | 69.96 |
| 4.70 | 7.546 | 0.214 | 0.68 | 2.0 | 0.0 | 35.262 | 2.836 | 0.0 | 6.546 | 3.112 | 69.84 |
| 4.71 | 7.546 | 0.204 | 0.68 | 2.0 | 0.0 | 36.99 | 2.703 | 0.0 | 6.546 | 2.968 | 69 |
| 4.72 | 7.444 | 0.194 | 0.68 | 2.1 | 0.0 | 38.371 | 2.606 | 0.0 | 6.444 | 2.865 | 68.82 |
| 4.73 | 7.444 | 0.184 | 0.69 | 2.1 | 0.0 | 40.457 | 2.472 | 0.0 | 6.444 | 2.718 | 67.91 |
| 4.74 | 7.444 | 0.173 | 0.69 | 2.1 | 0.0 | 43.029 | 2.324 | 0.0 | 6.444 | 2.556 | 66.88 |
| 4.75 | 7.444 | 0.163 | 0.69 | 2.1 | 0.0 | 45.669 | 2.19 | 0.0 | 6.444 | 2.409 | 65.9 |
| 4.76 | 7.546 | 0.153 | 0.70 | 2.1 | 0.0 | 49.32 | 2.028 | 0.0 | 6.546 | 2.228 | 64.22 |
| 4.77 | 7.546 | 0.143 | 0.71 | 2.1 | 0.0 | 52.769 | 1.895 | 0.0 | 6.546 | 2.083 | 63.17 |
| 4.78 | 7.546 | 0.143 | 0.71 | 2.1 | 0.0 | 52.769 | 1.895 | 0.0 | 6.546 | 2.083 | 63.17 |
| 4.79 | 7.546 | 0.143 | 0.71 | 2.1 | 0.0 | 52.769 | 1.895 | 0.0 | 6.546 | 2.084 | 63.17 |
| 4.80 | 7.546 | 0.133 | 0.72 | 2.1 | 0.0 | 56.737 | 1.763 | 0.0 | 6.546 | 1.938 | 62.07 |
| 4.81 | 7.546 | 0.133 | 0.72 | 2.1 | 0.0 | 56.737 | 1.763 | 0.0 | 6.546 | 1.939 | 62.08 |
| 4.82 | 7.546 | 0.122 | 0.72 | 2.1 | 0.0 | 61.852 | 1.617 | 0.0 | 6.546 | 1.779 | 60.8 |
| 4.83 | 7.546 | 0.122 | 0.72 | 2.1 | 0.0 | 61.852 | 1.617 | 0.0 | 6.546 | 1.779 | 60.81 |
| 4.84 | 7.75 | 0.122 | 0.73 | 2.1 | 0.0 | 63.525 | 1.574 | 0.0 | 6.75 | 1.728 | 59.59 |
| 4.85 | 7.75 | 0.122 | 0.73 | 2.1 | 0.0 | 63.525 | 1.574 | 0.0 | 6.75 | 1.728 | 59.59 |
| 4.86 | 7.75 | 0.122 | 0.73 | 2.1 | 0.0 | 63.525 | 1.574 | 0.0 | 6.75 | 1.729 | 59.59 |
| 4.87 | 7.852 | 0.112 | 1.66 | 2.1 | 0.0 | 70.107 | 1.426 | 0.0 | 6.852 | 1.565 | 57.81 |
| 4.88 | 7.75 | 0.112 | 1.88 | 2.1 | 0.0 | 69.196 | 1.445 | 0.0 | 6.75 | 1.588 | 58.39 |
| 4.89 | 7.75 | 0.122 | 1.93 | 2.2 | 0.0 | 63.525 | 1.574 | 0.0 | 6.75 | 1.73 | 59.6 |
| 4.90 | 7.75 | 0.122 | 1.94 | 2.2 | 0.0 | 63.525 | 1.574 | 0.0 | 6.75 | 1.73 | 59.6 |
| 4.91 | 7.852 | 0.122 | 1.97 | 2.2 | 0.0 | 64.361 | 1.554 | 0.0 | 6.852 | 1.706 | 59.01 |
| 4.92 | 7.954 | 0.122 | 2.00 | 2.2 | 0.0 | 65.197 | 1.534 | 0.0 | 6.954 | 1.682 | 58.44 |
| 4.93 | 8.26 | 0.122 | 2.10 | 2.2 | 0.0 | 67.705 | 1.477 | 0.0 | 7.26 | 1.614 | 56.77 |
| 4.94 | 8.464 | 0.122 | 2.16 | 2.2 | 0.0 | 69.377 | 1.441 | 0.0 | 7.464 | 1.572 | 55.71 |
| 4.95 | 8.769 | 0.122 | 2.20 | 2.2 | 0.0 | 71.877 | 1.391 | 0.0 | 7.769 | 1.513 | 54.21 |
| 4.96 | 8.973 | 0.122 | 2.27 | 2.2 | 0.0 | 73.549 | 1.36 | 0.0 | 7.973 | 1.476 | 53.25 |
| 4.97 | 9.075 | 0.122 | 2.36 | 2.2 | 0.0 | 74.385 | 1.344 | 0.0 | 8.075 | 1.458 | 52.79 |
| 4.98 | 9.177 | 0.122 | 2.43 | 2.2 | 0.0 | 75.221 | 1.329 | 0.0 | 8.177 | 1.441 | 52.33 |
| 4.99 | 9.381 | 0.122 | 2.52 | 2.2 | 0.0 | 76.893 | 1.301 | 0.0 | 8.381 | 1.407 | 51.44 |
| 5.00 | 9.483 | 0.122 | 2.64 | 2.2 | 0.0 | 77.73 | 1.287 | 0.0 | 8.483 | 1.391 | 51.01 |
| 5.01 | 9.993 | 0.122 | 2.83 | 2.2 | 0.0 | 81.91 | 1.221 | 0.0 | 8.993 | 1.315 | 48.94 |
| 5.02 | 10.299 | 0.122 | 3.00 | 2.2 | 0.0 | 84.418 | 1.185 | 0.0 | 9.299 | 1.273 | 47.79 |
| 5.03 | 10.707 | 0.133 | 3.25 | 2.2 | 0.0 | 80.504 | 1.242 | 0.0 | 9.707 | 1.331 | 47.36 |
| 5.04 | 11.319 | 0.133 | 3.53 | 2.2 | 0.0 | 85.105 | 1.175 | 0.0 | 10.319 | 1.255 | 45.3 |
| 5.05 | 11.829 | 0.133 | 3.84 | 2.2 | 0.0 | 88.94 | 1.124 | 0.0 | 10.829 | 1.197 | 43.71 |
| 5.06 | 12.338 | 0.143 | 4.13 | 2.3 | 0.0 | 86.28 | 1.159 | 0.0 | 11.338 | 1.231 | 43.05 |
| 5.07 | 12.644 | 0.143 | 4.38 | 2.3 | 0.0 | 88.42 | 1.131 | 0.0 | 11.644 | 1.2 | 42.2 |
| 5.08 | 12.95 | 0.153 | 4.84 | 2.3 | 0.0 | 84.641 | 1.181 | 0.0 | 11.95 | 1.251 | 42.14 |
| 5.09 | 12.95 | 0.153 | 5.01 | 2.3 | 0.0 | 84.641 | 1.181 | 0.0 | 11.95 | 1.252 | 42.14 |
| 5.10 | 12.95 | 0.153 | 5.13 | 2.2 | 0.0 | 84.641 | 1.181 | 0.0 | 11.95 | 1.252 | 42.14 |
| 5.11 | 12.848 | 0.153 | 5.17 | 2.2 | 0.0 | 83.974 | 1.191 | 0.0 | 11.848 | 1.262 | 42.42 |
| 5.12 | 12.746 | 0.153 | 5.12 | 2.3 | 0.0 | 83.307 | 1.2 | 0.0 | 11.746 | 1.273 | 42.7 |
| 5.13 | 12.542 | 0.163 | 5.09 | 2.3 | 0.0 | 76.945 | 1.3 | 0.0 | 11.542 | 1.38 | 44.02 |

Prova n. 1

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|-------|
| 5.14 | 12.338 | 0.163 | 5.14 | 2.3 | 0.0 | 75.693 | 1.321 | 0.0 | 11.338 | 1.405 | 44.61 |
| 5.15 | 11.93 | 0.153 | 5.28 | 2.3 | 0.0 | 77.974 | 1.282 | 0.0 | 10.93 | 1.367 | 45.06 |
| 5.16 | 11.727 | 0.153 | 5.29 | 2.3 | 0.0 | 76.647 | 1.305 | 0.0 | 10.727 | 1.392 | 45.69 |
| 5.17 | 11.523 | 0.143 | 5.29 | 2.3 | 0.0 | 80.58 | 1.241 | 0.0 | 10.523 | 1.326 | 45.52 |
| 5.18 | 11.217 | 0.133 | 5.35 | 2.3 | 0.0 | 84.338 | 1.186 | 0.0 | 10.217 | 1.269 | 45.65 |
| 5.19 | 11.013 | 0.122 | 5.39 | 2.3 | 0.0 | 90.27 | 1.108 | 0.0 | 10.013 | 1.188 | 45.32 |
| 5.20 | 10.911 | 0.112 | 5.36 | 2.3 | 0.0 | 97.42 | 1.026 | 0.0 | 9.911 | 1.101 | 44.69 |
| 5.21 | 10.809 | 0.112 | 5.26 | 2.3 | 0.0 | 96.509 | 1.036 | 0.0 | 9.809 | 1.113 | 45.03 |
| 5.22 | 10.809 | 0.102 | 5.21 | 2.3 | 0.0 | 105.971 | 0.944 | 0.0 | 9.809 | 1.013 | 44 |
| 5.23 | 10.503 | 0.082 | 5.03 | 2.3 | 0.0 | 128.085 | 0.781 | 0.0 | 9.503 | 0.84 | 42.75 |
| 5.24 | 10.299 | 0.071 | 5.03 | 2.3 | 0.0 | 145.056 | 0.689 | 0.0 | 9.299 | 0.743 | 42.02 |
| 5.25 | 10.095 | 0.061 | 5.08 | 2.3 | 0.0 | 165.492 | 0.604 | 0.0 | 9.095 | 0.653 | 41.31 |
| 5.26 | 9.993 | 0.051 | 5.11 | 2.3 | 0.0 | 195.941 | 0.51 | 0.0 | 8.993 | 0.552 | 40.12 |
| 5.27 | 9.789 | 0.051 | 5.17 | 2.3 | 0.0 | 191.941 | 0.521 | 0.0 | 8.789 | 0.564 | 40.8 |
| 5.28 | 9.789 | 0.041 | 5.22 | 2.3 | 0.0 | 238.756 | 0.419 | 0.0 | 8.789 | 0.454 | 39.08 |
| 5.29 | 9.687 | 0.031 | 5.23 | 2.3 | 0.0 | 312.484 | 0.32 | 0.0 | 8.687 | 0.347 | 37.49 |
| 5.30 | 9.687 | 0.02 | 5.24 | 2.3 | 0.0 | 484.35 | 0.206 | 0.0 | 8.687 | 0.224 | 35.09 |
| 5.31 | 9.585 | 0.01 | 5.23 | 2.3 | 0.0 | 958.5 | 0.104 | 0.0 | 8.585 | 0.113 | 33.02 |
| 5.32 | 9.483 | 0.01 | 5.18 | 2.3 | 0.0 | 948.3 | 0.105 | 0.0 | 8.483 | 0.115 | 33.28 |
| 5.33 | 9.483 | 0.01 | 5.13 | 2.4 | 0.0 | 948.3 | 0.105 | 0.0 | 8.483 | 0.115 | 33.29 |
| 5.34 | 9.381 | 0.01 | 5.11 | 2.3 | 0.0 | 938.1 | 0.107 | 0.0 | 8.381 | 0.116 | 33.56 |
| 5.35 | 9.381 | 0.0 | 5.09 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 8.381 | 0.0 | 47.38 |
| 5.36 | 9.381 | 0.0 | 5.09 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 8.381 | 0.0 | 47.38 |
| 5.37 | 9.585 | 0.0 | 5.19 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 8.585 | 0.0 | 46.83 |
| 5.38 | 10.401 | 0.0 | 5.62 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 9.401 | 0.0 | 44.79 |
| 5.39 | 11.013 | 0.0 | 5.81 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 10.013 | 0.0 | 43.41 |
| 5.40 | 12.236 | 0.0 | 6.17 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 11.236 | 0.0 | 40.97 |
| 5.41 | 13.97 | 0.0 | 6.40 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 12.97 | 0.0 | 38.06 |
| 5.42 | 16.213 | 0.0 | 6.16 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 15.213 | 0.0 | 35 |
| 5.43 | 18.457 | 0.0 | 5.76 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 17.457 | 0.0 | 32.51 |
| 5.44 | 21.006 | 0.0 | 4.74 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 20.006 | 0.0 | 30.17 |
| 5.45 | 24.983 | 0.0 | 3.05 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 23.983 | 0.0 | 27.24 |
| 5.46 | 26.716 | 0.01 | 2.69 | 2.4 | 0.0 | 2671.6 | 0.037 | 0.0 | 25.716 | 0.039 | 14.89 |
| 5.47 | 28.348 | 0.041 | 2.44 | 2.4 | 0.0 | 691.415 | 0.145 | 0.0 | 27.348 | 0.149 | 14.94 |
| 5.48 | 30.081 | 0.082 | 2.27 | 2.4 | 0.0 | 366.841 | 0.273 | 0.0 | 29.081 | 0.28 | 16.25 |
| 5.49 | 31.305 | 0.133 | 2.09 | 2.4 | 0.0 | 235.376 | 0.425 | 0.0 | 30.305 | 0.436 | 17.88 |
| 5.50 | 32.426 | 0.173 | 2.06 | 2.4 | 0.0 | 187.434 | 0.534 | 0.0 | 31.426 | 0.547 | 18.76 |
| 5.51 | 33.242 | 0.194 | 1.98 | 2.4 | 0.0 | 171.351 | 0.584 | 0.0 | 32.242 | 0.598 | 19 |
| 5.52 | 35.893 | 0.275 | 2.02 | 2.4 | 0.0 | 130.52 | 0.766 | 0.0 | 34.893 | 0.783 | 19.88 |
| 5.53 | 37.627 | 0.296 | 1.75 | 2.4 | 0.0 | 127.118 | 0.787 | 0.0 | 36.627 | 0.803 | 19.45 |
| 5.54 | 39.36 | 0.306 | 1.35 | 2.4 | 0.0 | 128.627 | 0.777 | 0.0 | 38.36 | 0.793 | 18.77 |
| 5.55 | 40.992 | 0.316 | 1.15 | 2.4 | 0.0 | 129.722 | 0.771 | 0.0 | 39.992 | 0.786 | 18.19 |
| 5.56 | 42.42 | 0.347 | 1.04 | 2.4 | 0.0 | 122.248 | 0.818 | 0.0 | 41.42 | 0.834 | 18.2 |
| 5.57 | 43.133 | 0.367 | 0.95 | 2.4 | 0.0 | 117.529 | 0.851 | 0.0 | 42.133 | 0.867 | 18.28 |
| 5.58 | 43.643 | 0.398 | 0.79 | 2.4 | 0.0 | 109.656 | 0.912 | 0.0 | 42.643 | 0.929 | 18.67 |
| 5.59 | 43.643 | 0.428 | 0.79 | 2.4 | 0.0 | 101.97 | 0.981 | 0.0 | 42.643 | 0.999 | 19.25 |
| 5.60 | 43.541 | 0.418 | 0.86 | 2.4 | 0.0 | 104.165 | 0.96 | 0.0 | 42.541 | 0.978 | 19.11 |
| 5.61 | 43.847 | 0.418 | 0.90 | 2.4 | 0.0 | 104.897 | 0.953 | 0.0 | 42.847 | 0.971 | 18.96 |
| 5.62 | 44.357 | 0.428 | 0.97 | 2.4 | 0.0 | 103.638 | 0.965 | 0.0 | 43.357 | 0.983 | 18.91 |
| 5.63 | 44.969 | 0.428 | 1.04 | 2.4 | 0.0 | 105.068 | 0.952 | 0.0 | 43.969 | 0.969 | 18.63 |
| 5.64 | 45.377 | 0.408 | 1.11 | 2.4 | 0.0 | 111.218 | 0.899 | 0.0 | 44.377 | 0.915 | 18.08 |
| 5.65 | 47.416 | 0.377 | 1.19 | 2.4 | 0.0 | 125.772 | 0.795 | 0.0 | 46.416 | 0.809 | 16.64 |
| 5.66 | 48.232 | 0.347 | 1.25 | 2.4 | 0.0 | 138.997 | 0.719 | 0.0 | 47.232 | 0.732 | 15.74 |
| 5.67 | 49.455 | 0.377 | 1.33 | 2.4 | 0.0 | 131.18 | 0.762 | 0.0 | 48.455 | 0.775 | 15.85 |
| 5.68 | 51.597 | 0.418 | 1.39 | 2.5 | 0.0 | 123.438 | 0.81 | 0.0 | 50.597 | 0.823 | 15.79 |
| 5.69 | 54.962 | 0.479 | 1.46 | 2.5 | 0.0 | 114.743 | 0.872 | 0.0 | 53.962 | 0.885 | 15.61 |
| 5.70 | 58.735 | 0.571 | 1.48 | 2.5 | 0.0 | 102.863 | 0.972 | 0.0 | 57.735 | 0.986 | 15.68 |
| 5.71 | 66.382 | 0.744 | 0.99 | 2.5 | 0.0 | 89.223 | 1.121 | 0.0 | 65.382 | 1.135 | 15.47 |
| 5.72 | 70.665 | 0.826 | 0.76 | 2.5 | 0.0 | 85.551 | 1.169 | 0.0 | 69.665 | 1.183 | 15.16 |
| 5.73 | 74.54 | 0.877 | 0.55 | 2.5 | 0.0 | 84.994 | 1.177 | 0.0 | 73.54 | 1.19 | 14.67 |
| 5.74 | 77.191 | 0.918 | 0.46 | 2.5 | 0.0 | 84.086 | 1.189 | 0.0 | 76.191 | 1.202 | 14.4 |
| 5.75 | 79.435 | 0.959 | 0.27 | 2.5 | 0.0 | 82.831 | 1.207 | 0.0 | 78.435 | 1.22 | 14.24 |
| 5.76 | 83.921 | 1.06 | -0.02 | 2.5 | 0.0 | 79.171 | 1.263 | 0.0 | 82.921 | 1.276 | 14.07 |

Prova n. 1

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|-------|
| 5.77 | 85.451 | 1.101 | -0.14 | 2.5 | 0.0 | 77.612 | 1.288 | 0.0 | 84.451 | 1.301 | 14.06 |
| 5.78 | 87.082 | 1.142 | -0.27 | 2.5 | 0.0 | 76.254 | 1.311 | 0.0 | 86.082 | 1.324 | 14.02 |
| 5.79 | 88.408 | 1.183 | -0.35 | 2.5 | 0.0 | 74.732 | 1.338 | 0.0 | 87.408 | 1.351 | 14.05 |
| 5.80 | 89.632 | 1.234 | -0.40 | 2.5 | 0.0 | 72.635 | 1.377 | 0.0 | 88.632 | 1.39 | 14.15 |
| 5.81 | 91.773 | 1.315 | -0.47 | 2.5 | 0.0 | 69.789 | 1.433 | 0.0 | 90.773 | 1.446 | 14.26 |
| 5.82 | 93.201 | 1.356 | -0.50 | 2.5 | 0.0 | 68.732 | 1.455 | 0.0 | 92.201 | 1.468 | 14.24 |
| 5.83 | 94.118 | 1.366 | -0.52 | 2.5 | 0.0 | 68.9 | 1.451 | 0.0 | 93.118 | 1.464 | 14.13 |
| 5.84 | 94.832 | 1.387 | -0.54 | 2.5 | 0.0 | 68.372 | 1.463 | 0.0 | 93.832 | 1.476 | 14.13 |
| 5.85 | 94.832 | 1.387 | -0.54 | 2.5 | 0.0 | 68.372 | 1.463 | 0.0 | 93.832 | 1.476 | 14.13 |
| 5.86 | 94.832 | 1.387 | -0.54 | 2.5 | 0.0 | 68.372 | 1.463 | 0.0 | 93.832 | 1.476 | 14.13 |
| 5.87 | 94.628 | 0.693 | -0.45 | 2.5 | 0.0 | 136.548 | 0.732 | 0.0 | 93.628 | 0.739 | 9.27 |
| 5.88 | 93.71 | 0.734 | -0.47 | 2.5 | 0.0 | 127.67 | 0.783 | 0.0 | 92.71 | 0.79 | 9.75 |
| 5.89 | 92.793 | 0.765 | -0.49 | 2.5 | 0.0 | 121.298 | 0.824 | 0.0 | 91.793 | 0.832 | 10.15 |
| 5.90 | 91.875 | 0.795 | -0.50 | 2.5 | 0.0 | 115.566 | 0.865 | 0.0 | 90.875 | 0.873 | 10.54 |
| 5.91 | 90.141 | 0.887 | -0.52 | 2.5 | 0.0 | 101.625 | 0.984 | 0.0 | 89.141 | 0.993 | 11.56 |
| 5.92 | 89.836 | 0.948 | -0.54 | 2.5 | 0.0 | 94.764 | 1.055 | 0.0 | 88.836 | 1.065 | 12.08 |
| 5.93 | 89.428 | 1.02 | -0.64 | 2.5 | 0.0 | 87.675 | 1.141 | 0.0 | 88.428 | 1.151 | 12.7 |
| 5.94 | 89.02 | 1.101 | -0.65 | 2.5 | 0.0 | 80.854 | 1.237 | 0.0 | 88.02 | 1.249 | 13.36 |
| 5.95 | 86.98 | 1.234 | -0.66 | 2.6 | 0.0 | 70.486 | 1.419 | 0.0 | 85.98 | 1.433 | 14.69 |
| 5.96 | 85.859 | 1.275 | -0.66 | 2.6 | 0.0 | 67.34 | 1.485 | 0.0 | 84.859 | 1.5 | 15.2 |
| 5.97 | 85.349 | 1.315 | -0.70 | 2.6 | 0.0 | 64.904 | 1.541 | 0.0 | 84.349 | 1.556 | 15.58 |
| 5.98 | 85.757 | 1.336 | -0.70 | 2.6 | 0.0 | 64.189 | 1.558 | 0.0 | 84.757 | 1.574 | 15.63 |
| 5.99 | 86.674 | 1.366 | -0.70 | 2.6 | 0.0 | 63.451 | 1.576 | 0.0 | 85.674 | 1.592 | 15.63 |
| 6.00 | 90.345 | 1.377 | -0.70 | 2.6 | 0.0 | 65.61 | 1.524 | 0.0 | 89.345 | 1.539 | 14.93 |
| 6.01 | 92.793 | 1.377 | -0.70 | 2.6 | 0.0 | 67.388 | 1.484 | 0.0 | 91.793 | 1.498 | 14.45 |
| 6.02 | 95.342 | 1.346 | -0.70 | 2.6 | 0.0 | 70.834 | 1.412 | 0.0 | 94.342 | 1.425 | 13.79 |
| 6.03 | 97.279 | 1.305 | -0.70 | 2.6 | 0.0 | 74.543 | 1.342 | 0.0 | 96.279 | 1.353 | 13.19 |
| 6.04 | 97.483 | 1.234 | -0.69 | 2.5 | 0.0 | 78.998 | 1.266 | 0.0 | 96.483 | 1.277 | 12.72 |
| 6.05 | 96.77 | 1.04 | -0.69 | 2.5 | 0.0 | 93.048 | 1.075 | 0.0 | 95.77 | 1.084 | 11.56 |
| 6.06 | 95.648 | 0.959 | -0.68 | 2.6 | 0.0 | 99.737 | 1.003 | 0.0 | 94.648 | 1.012 | 11.18 |
| 6.07 | 91.569 | 0.887 | -0.68 | 2.6 | 0.0 | 103.234 | 0.969 | 0.0 | 90.569 | 0.978 | 11.32 |
| 6.08 | 89.326 | 0.755 | -0.68 | 2.6 | 0.0 | 118.313 | 0.845 | 0.0 | 88.326 | 0.853 | 10.63 |
| 6.09 | 87.694 | 0.663 | -0.68 | 2.6 | 0.0 | 132.268 | 0.756 | 0.0 | 86.694 | 0.764 | 10.1 |
| 6.10 | 86.573 | 0.54 | -0.70 | 2.6 | 0.0 | 160.32 | 0.624 | 0.0 | 85.573 | 0.63 | 9.11 |
| 6.11 | 86.776 | 0.54 | -0.70 | 2.6 | 0.0 | 160.696 | 0.622 | 0.0 | 85.776 | 0.629 | 9.07 |
| 6.12 | 86.98 | 0.571 | -0.70 | 2.6 | 0.0 | 152.329 | 0.656 | 0.0 | 85.98 | 0.663 | 9.35 |
| 6.13 | 87.388 | 0.591 | -0.70 | 2.6 | 0.0 | 147.865 | 0.676 | 0.0 | 86.388 | 0.683 | 9.48 |
| 6.14 | 86.878 | 0.622 | -0.70 | 2.6 | 0.0 | 139.675 | 0.716 | 0.0 | 85.878 | 0.723 | 9.85 |
| 6.15 | 83.513 | 0.642 | -0.69 | 2.6 | 0.0 | 130.083 | 0.769 | 0.0 | 82.513 | 0.777 | 10.62 |
| 6.16 | 81.678 | 0.612 | -0.69 | 2.6 | 0.0 | 133.461 | 0.749 | 0.0 | 80.678 | 0.757 | 10.66 |
| 6.17 | 78.925 | 0.561 | -0.69 | 2.6 | 0.0 | 140.686 | 0.711 | 0.0 | 77.925 | 0.719 | 10.65 |
| 6.18 | 74.132 | 0.479 | -0.69 | 2.6 | 0.0 | 154.764 | 0.646 | 0.0 | 73.132 | 0.654 | 10.65 |
| 6.19 | 69.544 | 0.418 | -0.69 | 2.6 | 0.0 | 166.373 | 0.601 | 0.0 | 68.544 | 0.609 | 10.83 |
| 6.20 | 58.225 | 0.265 | -0.68 | 2.6 | 0.0 | 219.717 | 0.455 | 0.0 | 57.225 | 0.462 | 11.07 |
| 6.21 | 52.922 | 0.204 | -0.68 | 2.6 | 0.0 | 259.422 | 0.385 | 0.0 | 51.922 | 0.392 | 11.23 |
| 6.22 | 46.804 | 0.173 | -0.68 | 2.6 | 0.0 | 270.543 | 0.37 | 0.0 | 45.804 | 0.377 | 12.32 |
| 6.23 | 41.502 | 0.153 | -0.68 | 2.7 | 0.0 | 271.255 | 0.369 | 0.0 | 40.502 | 0.377 | 13.65 |
| 6.24 | 37.015 | 0.143 | -0.67 | 2.6 | 0.0 | 258.846 | 0.386 | 0.0 | 36.015 | 0.396 | 15.24 |
| 6.25 | 33.446 | 0.143 | -0.67 | 2.6 | 0.0 | 233.888 | 0.428 | 0.0 | 32.446 | 0.439 | 17.06 |
| 6.26 | 27.022 | 0.245 | -0.62 | 2.6 | 0.0 | 110.294 | 0.907 | 0.0 | 26.022 | 0.938 | 25.42 |
| 6.27 | 24.575 | 0.296 | -0.61 | 2.6 | 0.0 | 83.024 | 1.204 | 0.0 | 23.575 | 1.25 | 29.65 |
| 6.28 | 22.331 | 0.337 | -0.59 | 2.6 | 0.0 | 66.264 | 1.509 | 0.0 | 21.331 | 1.572 | 33.78 |
| 6.29 | 20.088 | 0.377 | -0.57 | 2.6 | 0.0 | 53.284 | 1.877 | 0.0 | 19.088 | 1.964 | 38.43 |
| 6.30 | 18.355 | 0.418 | -0.55 | 2.6 | 0.0 | 43.911 | 2.277 | 0.0 | 17.355 | 2.394 | 42.87 |
| 6.31 | 16.927 | 0.387 | -0.54 | 2.6 | 0.0 | 43.739 | 2.286 | 0.0 | 15.927 | 2.414 | 44.68 |
| 6.32 | 16.009 | 0.347 | -0.51 | 2.6 | 0.0 | 46.135 | 2.168 | 0.0 | 15.009 | 2.297 | 45.18 |
| 6.33 | 14.582 | 0.235 | -0.49 | 2.6 | 0.0 | 62.051 | 1.612 | 0.0 | 13.582 | 1.718 | 43.33 |
| 6.34 | 14.378 | 0.214 | -0.46 | 2.6 | 0.0 | 67.187 | 1.488 | 0.0 | 13.378 | 1.588 | 42.65 |
| 6.35 | 14.072 | 0.194 | -0.44 | 2.6 | 0.0 | 72.536 | 1.379 | 0.0 | 13.072 | 1.473 | 42.21 |
| 6.36 | 13.562 | 0.194 | -0.42 | 2.6 | 0.0 | 69.907 | 1.43 | 0.0 | 12.562 | 1.533 | 43.51 |
| 6.37 | 13.562 | 0.173 | -0.41 | 2.6 | 0.0 | 78.393 | 1.276 | 0.0 | 12.562 | 1.367 | 42.13 |
| 6.38 | 13.46 | 0.153 | -0.40 | 2.6 | 0.0 | 87.974 | 1.137 | 0.0 | 12.46 | 1.219 | 40.98 |
| 6.39 | 14.378 | 0.122 | -0.38 | 2.6 | 0.0 | 117.852 | 0.849 | 0.0 | 13.378 | 0.906 | 36.47 |

Prova n. 1

| | | | | | | | | | | | |
|------|---------|-------|-------|-----|-----|----------|-------|-----|---------|-------|-------|
| 6.40 | 19.17 | 0.061 | -0.33 | 2.7 | 0.0 | 314.262 | 0.318 | 0.0 | 18.17 | 0.334 | 23.74 |
| 6.41 | 24.575 | 0.061 | 0.52 | 2.7 | 0.0 | 402.869 | 0.248 | 0.0 | 23.575 | 0.258 | 18.68 |
| 6.42 | 21.312 | 0.071 | 3.69 | 2.8 | 0.0 | 300.169 | 0.333 | 0.0 | 20.312 | 0.348 | 22.24 |
| 6.43 | 18.762 | 0.061 | 5.48 | 2.7 | 0.0 | 307.574 | 0.325 | 0.0 | 17.762 | 0.342 | 24.22 |
| 6.44 | 17.641 | 0.051 | 5.63 | 2.7 | 0.0 | 345.902 | 0.289 | 0.0 | 16.641 | 0.305 | 24.67 |
| 6.45 | 16.723 | 0.051 | 4.90 | 2.7 | 0.0 | 327.902 | 0.305 | 0.0 | 15.723 | 0.323 | 25.9 |
| 6.46 | 14.99 | 0.061 | 6.11 | 2.7 | 0.0 | 245.738 | 0.407 | 0.0 | 13.99 | 0.434 | 29.67 |
| 6.47 | 11.829 | 0.092 | 4.80 | 2.7 | 0.0 | 128.576 | 0.778 | 0.0 | 10.829 | 0.843 | 40.01 |
| 6.48 | 11.93 | 0.092 | 5.83 | 2.7 | 0.0 | 129.674 | 0.771 | 0.0 | 10.93 | 0.836 | 39.73 |
| 6.49 | 12.134 | 0.082 | 6.84 | 2.7 | 0.0 | 147.976 | 0.676 | 0.0 | 11.134 | 0.731 | 38.1 |
| 6.50 | 11.727 | 0.061 | 7.33 | 2.7 | 0.0 | 192.246 | 0.52 | 0.0 | 10.727 | 0.565 | 36.64 |
| 6.51 | 11.727 | 0.061 | 7.56 | 2.7 | 0.0 | 192.246 | 0.52 | 0.0 | 10.727 | 0.565 | 36.64 |
| 6.52 | 12.032 | 0.071 | 8.45 | 2.7 | 0.0 | 169.465 | 0.59 | 0.0 | 11.032 | 0.639 | 37.1 |
| 6.53 | 12.542 | 0.061 | 8.55 | 2.7 | 0.0 | 205.607 | 0.486 | 0.0 | 11.542 | 0.525 | 34.62 |
| 6.54 | 14.378 | 0.02 | 8.70 | 2.7 | 0.0 | 718.9 | 0.139 | 0.0 | 13.378 | 0.149 | 25.45 |
| 6.55 | 15.092 | 0.01 | 8.21 | 2.7 | 0.0 | 1509.2 | 0.066 | 0.0 | 14.092 | 0.071 | 23.35 |
| 6.56 | 23.759 | 0.02 | 6.93 | 2.8 | 0.0 | 1187.95 | 0.084 | 0.0 | 22.759 | 0.088 | 16.39 |
| 6.57 | 34.058 | 0.01 | 8.35 | 2.8 | 0.0 | 3405.8 | 0.029 | 0.0 | 33.058 | 0.03 | 12.25 |
| 6.58 | 47.008 | 0.01 | 5.84 | 2.8 | 0.0 | 4700.8 | 0.021 | 0.0 | 46.008 | 0.022 | 9.47 |
| 6.59 | 72.501 | 0.02 | 2.78 | 2.8 | 0.0 | 3625.05 | 0.028 | 0.0 | 71.501 | 0.028 | 5.21 |
| 6.60 | 78.619 | 0.071 | 0.62 | 2.8 | 0.0 | 1107.31 | 0.09 | 0.0 | 77.619 | 0.091 | 4.2 |
| 6.61 | 82.086 | 0.153 | -0.20 | 2.8 | 0.0 | 536.51 | 0.186 | 0.0 | 81.086 | 0.189 | 5 |
| 6.62 | 83.208 | 0.163 | -0.44 | 2.8 | 0.0 | 510.479 | 0.196 | 0.0 | 82.208 | 0.198 | 5.01 |
| 6.63 | 83.921 | 0.286 | -0.52 | 2.8 | 0.0 | 293.43 | 0.341 | 0.0 | 82.921 | 0.345 | 6.62 |
| 6.64 | 83.004 | 0.347 | -0.55 | 2.8 | 0.0 | 239.205 | 0.418 | 0.0 | 82.004 | 0.423 | 7.52 |
| 6.65 | 84.839 | 0.418 | -0.55 | 2.8 | 0.0 | 202.964 | 0.493 | 0.0 | 83.839 | 0.498 | 8.08 |
| 6.66 | 85.961 | 0.438 | -0.52 | 2.8 | 0.0 | 196.258 | 0.51 | 0.0 | 84.961 | 0.515 | 8.14 |
| 6.67 | 86.674 | 0.428 | -0.51 | 2.8 | 0.0 | 202.509 | 0.494 | 0.0 | 85.674 | 0.499 | 7.92 |
| 6.68 | 87.082 | 0.438 | -0.50 | 2.8 | 0.0 | 198.817 | 0.503 | 0.0 | 86.082 | 0.509 | 7.97 |
| 6.69 | 87.286 | 0.438 | -0.49 | 2.8 | 0.0 | 199.283 | 0.502 | 0.0 | 86.286 | 0.507 | 7.94 |
| 6.70 | 86.98 | 0.377 | -0.48 | 2.8 | 0.0 | 230.716 | 0.433 | 0.0 | 85.98 | 0.438 | 7.31 |
| 6.71 | 86.471 | 0.347 | -0.48 | 2.8 | 0.0 | 249.196 | 0.401 | 0.0 | 85.471 | 0.406 | 7.03 |
| 6.72 | 86.063 | 0.347 | -0.47 | 2.8 | 0.0 | 248.02 | 0.403 | 0.0 | 85.063 | 0.408 | 7.08 |
| 6.73 | 85.961 | 0.337 | -0.46 | 2.8 | 0.0 | 255.077 | 0.392 | 0.0 | 84.961 | 0.396 | 6.98 |
| 6.74 | 86.063 | 0.326 | -0.46 | 2.8 | 0.0 | 263.997 | 0.379 | 0.0 | 85.063 | 0.383 | 6.83 |
| 6.75 | 86.267 | 0.255 | -0.44 | 2.8 | 0.0 | 338.302 | 0.296 | 0.0 | 85.267 | 0.299 | 5.91 |
| 6.76 | 86.471 | 0.204 | -0.42 | 2.8 | 0.0 | 423.877 | 0.236 | 0.0 | 85.471 | 0.239 | 5.21 |
| 6.77 | 86.878 | 0.184 | -0.42 | 2.8 | 0.0 | 472.163 | 0.212 | 0.0 | 85.878 | 0.214 | 4.9 |
| 6.78 | 86.98 | 0.184 | -0.41 | 2.8 | 0.0 | 472.717 | 0.212 | 0.0 | 85.98 | 0.214 | 4.88 |
| 6.79 | 87.49 | 0.204 | -0.40 | 2.8 | 0.0 | 428.873 | 0.233 | 0.0 | 86.49 | 0.236 | 5.1 |
| 6.80 | 88.51 | 0.204 | -0.39 | 2.8 | 0.0 | 433.873 | 0.23 | 0.0 | 87.51 | 0.233 | 4.98 |
| 6.81 | 88.51 | 0.214 | -0.39 | 2.8 | 0.0 | 413.598 | 0.242 | 0.0 | 87.51 | 0.244 | 5.11 |
| 6.82 | 89.02 | 0.224 | -0.38 | 2.8 | 0.0 | 397.411 | 0.252 | 0.0 | 88.02 | 0.254 | 5.19 |
| 6.83 | 89.734 | 0.214 | -0.34 | 2.8 | 0.0 | 419.318 | 0.238 | 0.0 | 88.734 | 0.241 | 4.98 |
| 6.84 | 90.753 | 0.214 | -0.32 | 2.8 | 0.0 | 424.079 | 0.236 | 0.0 | 89.753 | 0.238 | 4.87 |
| 6.85 | 90.753 | 0.214 | -0.32 | 2.8 | 0.0 | 424.079 | 0.236 | 0.0 | 89.753 | 0.238 | 4.87 |
| 6.86 | 90.753 | 0.214 | -0.32 | 2.8 | 0.0 | 424.079 | 0.236 | 0.0 | 89.753 | 0.238 | 4.87 |
| 6.87 | 96.158 | 0.112 | 0.61 | 2.8 | 0.0 | 858.554 | 0.116 | 0.0 | 95.158 | 0.118 | 3.12 |
| 6.88 | 100.44 | 0.122 | 0.58 | 2.8 | 0.0 | 823.279 | 0.121 | 0.0 | 99.44 | 0.123 | 2.9 |
| 6.89 | 103.602 | 0.143 | 0.58 | 2.8 | 0.0 | 724.49 | 0.138 | 0.0 | 102.602 | 0.139 | 2.89 |
| 6.90 | 106.763 | 0.143 | 0.59 | 2.8 | 0.0 | 746.594 | 0.134 | 0.0 | 105.763 | 0.135 | 2.66 |
| 6.91 | 110.332 | 0.143 | 0.60 | 2.8 | 0.0 | 771.552 | 0.13 | 0.0 | 109.332 | 0.131 | 2.42 |
| 6.92 | 114.002 | 0.143 | 0.60 | 2.8 | 0.0 | 797.217 | 0.125 | 0.0 | 113.002 | 0.127 | 2.19 |
| 6.93 | 117.673 | 0.133 | 0.60 | 2.8 | 0.0 | 884.759 | 0.113 | 0.0 | 116.673 | 0.114 | 1.9 |
| 6.94 | 123.894 | 0.133 | 0.59 | 2.8 | 0.0 | 931.534 | 0.107 | 0.0 | 122.894 | 0.108 | 1.57 |
| 6.95 | 126.239 | 0.133 | 0.60 | 2.8 | 0.0 | 949.165 | 0.105 | 0.0 | 125.239 | 0.106 | 1.45 |
| 6.96 | 128.584 | 0.122 | 0.61 | 2.8 | 0.0 | 1053.967 | 0.095 | 0.0 | 127.584 | 0.096 | 1.27 |
| 6.97 | 130.318 | 0.133 | 0.61 | 2.8 | 0.0 | 979.835 | 0.102 | 0.0 | 129.318 | 0.103 | 1.26 |
| 6.98 | 132.969 | 0.153 | 0.63 | 2.8 | 0.0 | 869.078 | 0.115 | 0.0 | 131.969 | 0.116 | 1.27 |
| 6.99 | 134.6 | 0.163 | 0.64 | 2.8 | 0.0 | 825.767 | 0.121 | 0.0 | 133.6 | 0.122 | 1.27 |
| 7.00 | 135.314 | 0.163 | 0.64 | 2.8 | 0.0 | 830.147 | 0.12 | 0.0 | 134.314 | 0.121 | 1.24 |
| 7.01 | 135.62 | 0.173 | 0.64 | 2.8 | 0.0 | 783.931 | 0.128 | 0.0 | 134.62 | 0.129 | 1.29 |
| 7.02 | 135.314 | 0.194 | 0.65 | 2.8 | 0.0 | 697.495 | 0.143 | 0.0 | 134.314 | 0.144 | 1.46 |

Prova n. 1

| | | | | | | | | | | | |
|------|---------|-------|-------|-----|-----|---------|-------|-----|---------|-------|------|
| 7.03 | 135.314 | 0.204 | 0.66 | 2.9 | 0.0 | 663.304 | 0.151 | 0.0 | 134.314 | 0.152 | 1.53 |
| 7.04 | 135.722 | 0.214 | 0.67 | 2.8 | 0.0 | 634.215 | 0.158 | 0.0 | 134.722 | 0.159 | 1.59 |
| 7.05 | 136.946 | 0.235 | 0.67 | 2.8 | 0.0 | 582.749 | 0.172 | 0.0 | 135.946 | 0.173 | 1.68 |
| 7.06 | 138.679 | 0.245 | 0.68 | 2.9 | 0.0 | 566.037 | 0.177 | 0.0 | 137.679 | 0.178 | 1.67 |
| 7.07 | 141.84 | 0.265 | 0.70 | 2.9 | 0.0 | 535.245 | 0.187 | 0.0 | 140.84 | 0.188 | 1.66 |
| 7.08 | 142.554 | 0.265 | 0.71 | 2.9 | 0.0 | 537.94 | 0.186 | 0.0 | 141.554 | 0.187 | 1.62 |
| 7.09 | 142.86 | 0.286 | 0.71 | 2.9 | 0.0 | 499.51 | 0.2 | 0.0 | 141.86 | 0.202 | 1.75 |
| 7.10 | 142.35 | 0.286 | 0.71 | 2.9 | 0.0 | 497.727 | 0.201 | 0.0 | 141.35 | 0.202 | 1.78 |
| 7.11 | 141.126 | 0.306 | 0.70 | 2.9 | 0.0 | 461.196 | 0.217 | 0.0 | 140.126 | 0.218 | 1.98 |
| 7.12 | 135.518 | 0.316 | 0.70 | 2.9 | 0.0 | 428.854 | 0.233 | 0.0 | 134.518 | 0.235 | 2.36 |
| 7.13 | 134.804 | 0.316 | 0.72 | 2.9 | 0.0 | 426.595 | 0.234 | 0.0 | 133.804 | 0.236 | 2.4 |
| 7.14 | 128.89 | 0.387 | 0.68 | 2.9 | 0.0 | 333.049 | 0.3 | 0.0 | 127.89 | 0.303 | 3.31 |
| 7.15 | 127.666 | 0.337 | 0.56 | 3.0 | 0.0 | 378.831 | 0.264 | 0.0 | 126.666 | 0.266 | 3.01 |
| 7.16 | 124.913 | 0.53 | 0.68 | 3.0 | 0.0 | 235.685 | 0.424 | 0.0 | 123.913 | 0.428 | 4.67 |
| 7.17 | 125.933 | 0.449 | 0.69 | 3.0 | 0.0 | 280.474 | 0.357 | 0.0 | 124.933 | 0.359 | 3.99 |
| 7.18 | 127.259 | 0.438 | 0.71 | 3.0 | 0.0 | 290.546 | 0.344 | 0.0 | 126.259 | 0.347 | 3.81 |
| 7.19 | 127.361 | 0.408 | 0.72 | 3.0 | 0.0 | 312.159 | 0.32 | 0.0 | 126.361 | 0.323 | 3.58 |
| 7.20 | 127.87 | 0.408 | 0.73 | 3.0 | 0.0 | 313.407 | 0.319 | 0.0 | 126.87 | 0.322 | 3.54 |
| 7.21 | 128.584 | 0.387 | 0.73 | 3.0 | 0.0 | 332.258 | 0.301 | 0.0 | 127.584 | 0.303 | 3.33 |
| 7.22 | 125.525 | 0.377 | 0.66 | 3.0 | 0.0 | 332.958 | 0.3 | 0.0 | 124.525 | 0.303 | 3.47 |
| 7.23 | 124.811 | 0.357 | 0.64 | 3.0 | 0.0 | 349.611 | 0.286 | 0.0 | 123.811 | 0.288 | 3.36 |
| 7.24 | 124.097 | 0.337 | 0.64 | 3.0 | 0.0 | 368.24 | 0.272 | 0.0 | 123.097 | 0.274 | 3.25 |
| 7.25 | 124.913 | 0.316 | 0.67 | 3.0 | 0.0 | 395.294 | 0.253 | 0.0 | 123.913 | 0.255 | 3.02 |
| 7.26 | 129.298 | 0.316 | 0.55 | 3.0 | 0.0 | 409.171 | 0.244 | 0.0 | 128.298 | 0.246 | 2.74 |
| 7.27 | 131.541 | 0.316 | 0.39 | 3.0 | 0.0 | 416.269 | 0.24 | 0.0 | 130.541 | 0.242 | 2.6 |
| 7.28 | 133.887 | 0.296 | 0.30 | 3.0 | 0.0 | 452.321 | 0.221 | 0.0 | 132.887 | 0.223 | 2.31 |
| 7.29 | 135.62 | 0.204 | 0.31 | 3.0 | 0.0 | 664.804 | 0.15 | 0.0 | 134.62 | 0.152 | 1.52 |
| 7.30 | 136.028 | 0.194 | -0.04 | 3.0 | 0.0 | 701.175 | 0.143 | 0.0 | 135.028 | 0.144 | 1.42 |
| 7.31 | 133.785 | 0.184 | -0.33 | 3.0 | 0.0 | 727.092 | 0.138 | 0.0 | 132.785 | 0.139 | 1.46 |
| 7.32 | 131.745 | 0.184 | -0.29 | 3.0 | 0.0 | 716.005 | 0.14 | 0.0 | 130.745 | 0.141 | 1.56 |
| 7.33 | 129.604 | 0.163 | -0.28 | 3.0 | 0.0 | 795.117 | 0.126 | 0.0 | 128.604 | 0.127 | 1.51 |
| 7.34 | 127.055 | 0.143 | -0.25 | 3.0 | 0.0 | 888.497 | 0.113 | 0.0 | 126.055 | 0.113 | 1.48 |
| 7.35 | 125.015 | 0.143 | -0.25 | 3.0 | 0.0 | 874.231 | 0.114 | 0.0 | 124.015 | 0.115 | 1.59 |
| 7.36 | 117.673 | 0.153 | -0.22 | 3.0 | 0.0 | 769.105 | 0.13 | 0.0 | 116.673 | 0.131 | 2.06 |
| 7.37 | 114.512 | 0.163 | -0.21 | 3.0 | 0.0 | 702.528 | 0.142 | 0.0 | 113.512 | 0.144 | 2.35 |
| 7.38 | 111.555 | 0.184 | -0.21 | 3.0 | 0.0 | 606.277 | 0.165 | 0.0 | 110.555 | 0.167 | 2.74 |
| 7.39 | 108.496 | 0.194 | -0.20 | 3.0 | 0.0 | 559.258 | 0.179 | 0.0 | 107.496 | 0.181 | 3.06 |
| 7.40 | 105.947 | 0.214 | -0.19 | 3.0 | 0.0 | 495.079 | 0.202 | 0.0 | 104.947 | 0.204 | 3.46 |
| 7.41 | 103.296 | 0.224 | -0.18 | 3.0 | 0.0 | 461.143 | 0.217 | 0.0 | 102.296 | 0.219 | 3.79 |
| 7.42 | 98.299 | 0.265 | -0.17 | 3.0 | 0.0 | 370.94 | 0.27 | 0.0 | 97.299 | 0.273 | 4.7 |
| 7.43 | 96.362 | 0.275 | -0.16 | 3.0 | 0.0 | 350.407 | 0.285 | 0.0 | 95.362 | 0.289 | 5.01 |
| 7.44 | 95.24 | 0.296 | -0.15 | 3.0 | 0.0 | 321.757 | 0.311 | 0.0 | 94.24 | 0.314 | 5.37 |
| 7.45 | 94.424 | 0.306 | -0.08 | 3.0 | 0.0 | 308.575 | 0.324 | 0.0 | 93.424 | 0.328 | 5.57 |
| 7.46 | 93.506 | 0.316 | -0.07 | 3.0 | 0.0 | 295.905 | 0.338 | 0.0 | 92.506 | 0.342 | 5.79 |
| 7.47 | 92.079 | 0.347 | -0.04 | 3.0 | 0.0 | 265.357 | 0.377 | 0.0 | 91.079 | 0.381 | 6.3 |
| 7.48 | 90.753 | 0.357 | -0.03 | 3.0 | 0.0 | 254.21 | 0.393 | 0.0 | 89.753 | 0.398 | 6.58 |
| 7.49 | 89.02 | 0.357 | -0.03 | 3.0 | 0.0 | 249.356 | 0.401 | 0.0 | 88.02 | 0.406 | 6.81 |
| 7.50 | 87.184 | 0.347 | -0.02 | 3.0 | 0.0 | 251.251 | 0.398 | 0.0 | 86.184 | 0.403 | 6.94 |
| 7.51 | 84.839 | 0.316 | -0.01 | 3.0 | 0.0 | 268.478 | 0.372 | 0.0 | 83.839 | 0.377 | 6.88 |
| 7.52 | 83.106 | 0.296 | 0.00 | 3.0 | 0.0 | 280.764 | 0.356 | 0.0 | 82.106 | 0.361 | 6.87 |
| 7.53 | 81.168 | 0.255 | 0.02 | 3.0 | 0.0 | 318.306 | 0.314 | 0.0 | 80.168 | 0.318 | 6.59 |
| 7.54 | 80.862 | 0.245 | 0.02 | 3.0 | 0.0 | 330.049 | 0.303 | 0.0 | 79.862 | 0.307 | 6.49 |
| 7.55 | 80.964 | 0.235 | 0.03 | 3.0 | 0.0 | 344.528 | 0.29 | 0.0 | 79.964 | 0.294 | 6.34 |
| 7.56 | 81.78 | 0.214 | 0.03 | 3.0 | 0.0 | 382.15 | 0.262 | 0.0 | 80.78 | 0.265 | 5.93 |
| 7.57 | 82.698 | 0.194 | 0.04 | 3.0 | 0.0 | 426.278 | 0.235 | 0.0 | 81.698 | 0.238 | 5.53 |
| 7.58 | 83.615 | 0.184 | 0.04 | 3.0 | 0.0 | 454.429 | 0.22 | 0.0 | 82.615 | 0.223 | 5.27 |
| 7.59 | 85.247 | 0.163 | 0.05 | 3.0 | 0.0 | 522.988 | 0.191 | 0.0 | 84.247 | 0.194 | 4.79 |
| 7.60 | 86.063 | 0.173 | 0.07 | 3.0 | 0.0 | 497.474 | 0.201 | 0.0 | 85.063 | 0.204 | 4.84 |
| 7.61 | 86.165 | 0.153 | 0.08 | 3.0 | 0.0 | 563.17 | 0.178 | 0.0 | 85.165 | 0.18 | 4.55 |
| 7.62 | 87.184 | 0.143 | 0.09 | 3.0 | 0.0 | 609.678 | 0.164 | 0.0 | 86.184 | 0.166 | 4.3 |
| 7.63 | 87.694 | 0.133 | 0.09 | 3.0 | 0.0 | 659.353 | 0.152 | 0.0 | 86.694 | 0.154 | 4.12 |
| 7.64 | 88.204 | 0.122 | 0.10 | 3.0 | 0.0 | 722.984 | 0.138 | 0.0 | 87.204 | 0.14 | 3.92 |
| 7.65 | 87.898 | 0.112 | 0.11 | 3.0 | 0.0 | 784.804 | 0.127 | 0.0 | 86.898 | 0.129 | 3.82 |

Prova n. 1

| | | | | | | | | | | | |
|------|---------|-------|------|-----|-----|----------|-------|-----|---------|-------|------|
| 7.66 | 87.694 | 0.102 | 0.11 | 3.0 | 0.0 | 859.745 | 0.116 | 0.0 | 86.694 | 0.118 | 3.72 |
| 7.67 | 87.694 | 0.102 | 0.12 | 3.0 | 0.0 | 859.745 | 0.116 | 0.0 | 86.694 | 0.118 | 3.72 |
| 7.68 | 87.694 | 0.092 | 0.12 | 3.0 | 0.0 | 953.196 | 0.105 | 0.0 | 86.694 | 0.106 | 3.6 |
| 7.69 | 89.02 | 0.082 | 0.13 | 3.0 | 0.0 | 1085.61 | 0.092 | 0.0 | 88.02 | 0.093 | 3.38 |
| 7.70 | 90.04 | 0.082 | 0.10 | 3.0 | 0.0 | 1098.049 | 0.091 | 0.0 | 89.04 | 0.092 | 3.29 |
| 7.71 | 90.243 | 0.071 | 0.09 | 3.0 | 0.0 | 1271.028 | 0.079 | 0.0 | 89.243 | 0.08 | 3.19 |
| 7.72 | 91.773 | 0.122 | 0.13 | 3.1 | 0.0 | 752.238 | 0.133 | 0.0 | 90.773 | 0.135 | 3.6 |
| 7.73 | 94.934 | 0.102 | 0.14 | 3.1 | 0.0 | 930.725 | 0.107 | 0.0 | 93.934 | 0.109 | 3.11 |
| 7.74 | 100.542 | 0.092 | 0.16 | 3.1 | 0.0 | 1092.848 | 0.092 | 0.0 | 99.542 | 0.093 | 2.61 |
| 7.75 | 104.009 | 0.092 | 0.17 | 3.1 | 0.0 | 1130.533 | 0.088 | 0.0 | 103.009 | 0.089 | 2.38 |
| 7.76 | 107.374 | 0.082 | 0.19 | 3.1 | 0.0 | 1309.439 | 0.076 | 0.0 | 106.374 | 0.077 | 2.12 |
| 7.77 | 109.21 | 0.082 | 0.19 | 3.1 | 0.0 | 1331.829 | 0.075 | 0.0 | 108.21 | 0.076 | 2.01 |
| 7.78 | 108.292 | 0.082 | 0.15 | 3.1 | 0.0 | 1320.634 | 0.076 | 0.0 | 107.292 | 0.077 | 2.07 |
| 7.79 | 109.924 | 0.092 | 0.17 | 3.1 | 0.0 | 1194.826 | 0.084 | 0.0 | 108.924 | 0.085 | 2.03 |
| 7.80 | 109.108 | 0.102 | 0.20 | 3.1 | 0.0 | 1069.686 | 0.093 | 0.0 | 108.108 | 0.094 | 2.15 |
| 7.81 | 110.739 | 0.122 | 0.24 | 3.1 | 0.0 | 907.697 | 0.11 | 0.0 | 109.739 | 0.111 | 2.21 |
| 7.82 | 113.595 | 0.122 | 0.26 | 3.1 | 0.0 | 931.107 | 0.107 | 0.0 | 112.595 | 0.108 | 2.04 |
| 7.83 | 116.144 | 0.133 | 0.24 | 3.1 | 0.0 | 873.263 | 0.115 | 0.0 | 115.144 | 0.116 | 1.98 |
| 7.84 | 117.367 | 0.173 | 0.25 | 3.1 | 0.0 | 678.422 | 0.147 | 0.0 | 116.367 | 0.149 | 2.26 |
| 7.85 | 117.367 | 0.173 | 0.25 | 3.1 | 0.0 | 678.422 | 0.147 | 0.0 | 116.367 | 0.149 | 2.26 |
| 7.86 | 117.367 | 0.173 | 0.25 | 3.1 | 0.0 | 678.422 | 0.147 | 0.0 | 116.367 | 0.149 | 2.26 |
| 7.87 | 120.936 | 0.235 | 0.67 | 3.1 | 0.0 | 514.621 | 0.194 | 0.0 | 119.936 | 0.196 | 2.59 |
| 7.88 | 123.384 | 0.347 | 0.74 | 3.1 | 0.0 | 355.573 | 0.281 | 0.0 | 122.384 | 0.284 | 3.38 |
| 7.89 | 130.929 | 0.367 | 0.76 | 3.1 | 0.0 | 356.755 | 0.28 | 0.0 | 129.929 | 0.283 | 3.03 |
| 7.90 | 135.416 | 0.387 | 0.77 | 3.1 | 0.0 | 349.912 | 0.286 | 0.0 | 134.416 | 0.288 | 2.89 |
| 7.91 | 139.393 | 0.408 | 0.79 | 3.1 | 0.0 | 341.65 | 0.293 | 0.0 | 138.393 | 0.295 | 2.8 |
| 7.92 | 147.755 | 0.438 | 0.81 | 3.1 | 0.0 | 337.34 | 0.296 | 0.0 | 146.755 | 0.299 | 2.52 |
| 7.93 | 151.323 | 0.449 | 0.82 | 3.1 | 0.0 | 337.022 | 0.297 | 0.0 | 150.323 | 0.299 | 2.4 |
| 7.94 | 155.504 | 0.459 | 0.83 | 3.1 | 0.0 | 338.789 | 0.295 | 0.0 | 154.504 | 0.297 | 2.24 |
| 7.95 | 158.767 | 0.469 | 0.84 | 3.1 | 0.0 | 338.522 | 0.295 | 0.0 | 157.767 | 0.298 | 2.14 |
| 7.96 | 163.254 | 0.52 | 0.85 | 3.1 | 0.0 | 313.95 | 0.319 | 0.0 | 162.254 | 0.321 | 2.21 |
| 7.97 | 163.356 | 0.51 | 0.84 | 3.1 | 0.0 | 320.306 | 0.312 | 0.0 | 162.356 | 0.314 | 2.15 |
| 7.98 | 163.866 | 0.51 | 0.84 | 3.1 | 0.0 | 321.306 | 0.311 | 0.0 | 162.866 | 0.313 | 2.12 |
| 7.99 | 171.514 | 0.52 | 0.87 | 3.1 | 0.0 | 329.835 | 0.303 | 0.0 | 170.514 | 0.305 | 1.83 |
| 8.00 | 175.592 | 0.51 | 0.89 | 3.1 | 0.0 | 344.298 | 0.29 | 0.0 | 174.592 | 0.292 | 1.6 |
| 8.01 | 179.671 | 0.469 | 0.83 | 3.1 | 0.0 | 383.094 | 0.261 | 0.0 | 178.671 | 0.263 | 1.23 |
| 8.02 | 184.26 | 0.459 | 0.91 | 3.1 | 0.0 | 401.438 | 0.249 | 0.0 | 183.26 | 0.251 | 1.01 |
| 8.03 | 199.453 | 0.479 | 0.95 | 3.2 | 0.0 | 416.395 | 0.24 | 0.0 | 198.453 | 0.242 | 0.6 |
| 8.04 | 211.996 | 0.459 | 0.97 | 3.2 | 0.0 | 461.865 | 0.217 | 0.0 | 210.996 | 0.218 | 0.15 |
| 8.05 | 212.505 | 0.5 | 0.96 | 3.2 | 0.0 | 425.01 | 0.235 | 0.0 | 211.505 | 0.237 | 0.3 |
| 8.06 | 220.663 | 0.54 | 1.02 | 3.2 | 0.0 | 408.635 | 0.245 | 0.0 | 219.663 | 0.246 | 0.23 |
| 8.07 | 222.499 | 0.54 | 1.03 | 3.2 | 0.0 | 412.035 | 0.243 | 0.0 | 221.499 | 0.244 | 0.19 |
| 8.08 | 237.794 | 0.54 | 1.01 | 3.2 | 0.0 | 440.359 | 0.227 | 0.0 | 236.794 | 0.228 | 0 |
| 8.09 | 239.222 | 0.632 | 0.95 | 3.2 | 0.0 | 378.516 | 0.264 | 0.0 | 238.222 | 0.265 | 0.09 |
| 8.10 | 242.893 | 0.622 | 0.99 | 3.2 | 0.0 | 390.503 | 0.256 | 0.0 | 241.893 | 0.257 | 0 |
| 8.11 | 244.932 | 0.622 | 1.02 | 3.2 | 0.0 | 393.781 | 0.254 | 0.0 | 243.932 | 0.255 | 0 |
| 8.12 | 248.195 | 0.612 | 1.04 | 3.3 | 0.0 | 405.547 | 0.247 | 0.0 | 247.195 | 0.248 | 0 |
| 8.13 | 254.313 | 0.663 | 1.05 | 3.3 | 0.0 | 383.579 | 0.261 | 0.0 | 253.313 | 0.262 | 0 |
| 8.14 | 246.767 | 0.744 | 0.84 | 3.3 | 0.0 | 331.676 | 0.301 | 0.0 | 245.767 | 0.303 | 0.28 |
| 8.15 | 240.343 | 0.897 | 0.87 | 3.3 | 0.0 | 267.941 | 0.373 | 0.0 | 239.343 | 0.375 | 0.93 |
| 8.16 | 235.653 | 0.989 | 0.88 | 3.3 | 0.0 | 238.274 | 0.42 | 0.0 | 234.653 | 0.422 | 1.36 |
| 8.17 | 240.853 | 0.867 | 0.80 | 3.3 | 0.0 | 277.8 | 0.36 | 0.0 | 239.853 | 0.362 | 0.82 |
| 8.18 | 246.869 | 0.836 | 0.82 | 3.3 | 0.0 | 295.298 | 0.339 | 0.0 | 245.869 | 0.34 | 0.56 |
| 8.19 | 253.701 | 0.724 | 0.81 | 3.3 | 0.0 | 350.416 | 0.285 | 0.0 | 252.701 | 0.287 | 0.05 |
| 8.20 | 254.517 | 0.704 | 0.85 | 3.3 | 0.0 | 361.53 | 0.277 | 0.0 | 253.517 | 0.278 | 0 |
| 8.21 | 260.227 | 1.04 | 0.93 | 3.3 | 0.0 | 250.218 | 0.4 | 0.0 | 259.227 | 0.401 | 0.82 |
| 8.22 | 274.503 | 1.203 | 1.06 | 3.4 | 0.0 | 228.182 | 0.438 | 0.0 | 273.503 | 0.44 | 0.9 |
| 8.23 | 293.674 | 1.081 | 0.89 | 3.4 | 0.0 | 271.669 | 0.368 | 0.0 | 292.674 | 0.37 | 0.16 |
| 8.24 | 316.005 | 1.132 | 1.00 | 3.4 | 0.0 | 279.156 | 0.358 | 0.0 | 315.005 | 0.36 | 0 |
| 8.25 | 374.842 | 1.183 | 1.18 | 3.5 | 0.0 | 316.857 | 0.316 | 0.0 | 373.842 | 0.317 | 0 |
| 8.26 | 405.943 | 1.122 | 1.30 | 3.5 | 0.0 | 361.803 | 0.276 | 0.0 | 404.943 | 0.277 | 0 |
| 8.27 | 403.189 | 0.979 | 1.31 | 3.5 | 0.0 | 411.838 | 0.243 | 0.0 | 402.189 | 0.244 | 0 |

Prova n. 1

STIMA PARAMETRI GEOTECNICI Nr.1**TERRENI COESIVI**Coesione non drenata (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Lunne & Eide | Sunda Relazione Sperimentale | Lunne T.- Kleven A. 1981 | Kjekstad. 1978 - Lunne, Robertson and Powell 1977 | Lunne, Robertson and Powell 1977 | Terzaghi |
|------------------|--------------------------|--------------------------|--------------|------------------------------|--------------------------|---|----------------------------------|----------|
| 0.90 | 132.704 | 96.647 | 6.41 | 4.16 | 8.84 | 7.80 | 6.98 | 6.64 |
| 1.37 | 34.255 | 25.636 | 1.64 | 1.98 | 2.27 | 2.00 | 1.79 | 1.71 |
| 1.51 | 2.32 | 1.661 | 0.10 | 0.16 | 0.13 | 0.12 | 0.11 | 0.12 |
| 1.78 | 49.244 | 35.008 | 2.36 | 2.52 | 3.26 | 2.88 | 2.57 | 2.46 |
| 2.93 | 12.382 | 8.792 | 0.57 | 0.86 | 0.79 | 0.70 | 0.63 | 0.62 |
| 4.52 | 32.777 | 23.485 | 1.55 | 1.89 | 2.13 | 1.88 | 1.69 | 1.64 |
| 5.40 | 11.105 | 9.558 | 0.49 | 0.74 | 0.67 | 0.59 | 0.53 | 0.56 |
| 6.27 | 92.061 | 71.009 | 4.39 | 3.52 | 6.06 | 5.35 | 4.78 | 4.60 |
| 6.58 | 24.724 | 18.953 | 1.13 | 1.49 | 1.56 | 1.38 | 1.23 | 1.24 |
| 7.72 | 127.492 | 108.201 | 6.09 | 4.05 | 8.40 | 7.41 | 6.63 | 6.37 |
| 8.27 | 269.271 | 207.229 | 12.93 | 5.11 | 17.84 | 15.74 | 14.08 | 13.46 |

Modulo Edometrico (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Mitchell & Gardner (1975) | Metodo generale del modulo edometrico | Buismann | Buismann Sanglerat |
|------------------|--------------------------|--------------------------|---------------------------|---------------------------------------|----------|--------------------|
| 0.90 | 132.704 | 96.647 | 331.76 | 265.40 | 398.11 | 199.06 |
| 1.37 | 34.255 | 25.636 | 85.64 | 68.51 | 102.76 | 102.76 |
| 1.51 | 2.32 | 1.661 | 18.56 | 14.12 | 34.80 | 6.96 |
| 1.78 | 49.244 | 35.008 | 123.11 | 98.49 | 147.73 | 73.87 |
| 2.93 | 12.382 | 8.792 | 61.91 | 47.26 | 74.29 | 37.15 |
| 4.52 | 32.777 | 23.485 | 81.94 | 65.55 | 98.33 | 98.33 |
| 5.40 | 11.105 | 9.558 | 55.53 | 45.59 | 66.63 | 33.31 |
| 6.27 | 92.061 | 71.009 | 230.15 | 184.12 | 276.18 | 138.09 |
| 6.58 | 24.724 | 18.953 | 61.81 | 49.45 | 74.17 | 74.17 |
| 7.72 | 127.492 | 108.201 | 318.73 | 254.98 | 382.48 | 191.24 |
| 8.27 | 269.271 | 207.229 | 673.18 | 538.53 | 807.81 | 403.91 |

Modulo di deformazione non drenato Eu (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Cancelli 1980 | Ladd 1977 (30) |
|------------------|--------------------------|--------------------------|---------------|----------------|
| 0.90 | 132.704 | 96.647 | 4972.52 | 199.20 |
| 1.37 | 34.255 | 25.636 | 1274.95 | 51.30 |
| 1.51 | 2.32 | 1.661 | 75.14 | 3.60 |
| 1.78 | 49.244 | 35.008 | 1833.34 | 73.80 |
| 2.93 | 12.382 | 8.792 | 445.85 | 18.60 |
| 4.52 | 32.777 | 23.485 | 1200.60 | 49.20 |
| 5.40 | 11.105 | 9.558 | 378.81 | 16.80 |
| 6.27 | 92.061 | 71.009 | 3407.93 | 138.00 |
| 6.58 | 24.724 | 18.953 | 878.04 | 37.20 |
| 7.72 | 127.492 | 108.201 | 4725.76 | 191.10 |
| 8.27 | 269.271 | 207.229 | 10035.09 | 403.80 |

Modulo di deformazione a taglio

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Modulo di deformazione a taglio (Kg/cm ²) |
|------------------|--------------------------|--------------------------|-----------------|---|
| 0.90 | 132.704 | 96.647 | Imai & Tomauchi | 554.93 |
| 1.37 | 34.255 | 25.636 | Imai & Tomauchi | 242.59 |
| 1.51 | 2.32 | 1.661 | Imai & Tomauchi | 46.82 |
| 1.78 | 49.244 | 35.008 | Imai & Tomauchi | 302.82 |
| 2.93 | 12.382 | 8.792 | Imai & Tomauchi | 130.27 |
| 4.52 | 32.777 | 23.485 | Imai & Tomauchi | 236.14 |
| 5.40 | 11.105 | 9.558 | Imai & Tomauchi | 121.89 |
| 6.27 | 92.061 | 71.009 | Imai & Tomauchi | 443.82 |
| 6.58 | 24.724 | 18.953 | Imai & Tomauchi | 198.77 |
| 7.72 | 127.492 | 108.201 | Imai & Tomauchi | 541.51 |
| 8.27 | 269.271 | 207.229 | Imai & Tomauchi | 855.07 |

Prova n. 1

Grado di sovraconsolidazione

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Stress-History |
|---------------------|-----------------------------|-----------------------------|----------------|
| 0.90 | 132.704 | 96.647 | >9 |
| 1.37 | 34.255 | 25.636 | 3.11 |
| 1.51 | 2.32 | 1.661 | <0.5 |
| 1.78 | 49.244 | 35.008 | 3.23 |
| 2.93 | 12.382 | 8.792 | 0.58 |
| 4.52 | 32.777 | 23.485 | 1 |
| 5.40 | 11.105 | 9.558 | <0.5 |
| 6.27 | 92.061 | 71.009 | 1.81 |
| 6.58 | 24.724 | 18.953 | <0.5 |
| 7.72 | 127.492 | 108.201 | 2.01 |
| 8.27 | 269.271 | 207.229 | 3.75 |

Peso unità di volume

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume (t/m ³) |
|---------------------|-----------------------------|-----------------------------|--------------|---|
| 0.90 | 132.704 | 96.647 | Meyerhof | 2.29 |
| 1.37 | 34.255 | 25.636 | Meyerhof | 2.06 |
| 1.51 | 2.32 | 1.661 | Meyerhof | 1.59 |
| 1.78 | 49.244 | 35.008 | Meyerhof | 2.12 |
| 2.93 | 12.382 | 8.792 | Meyerhof | 1.89 |
| 4.52 | 32.777 | 23.485 | Meyerhof | 2.05 |
| 5.40 | 11.105 | 9.558 | Meyerhof | 1.86 |
| 6.27 | 92.061 | 71.009 | Meyerhof | 2.23 |
| 6.58 | 24.724 | 18.953 | Meyerhof | 2.00 |
| 7.72 | 127.492 | 108.201 | Meyerhof | 2.28 |
| 8.27 | 269.271 | 207.229 | Meyerhof | 2.41 |

Peso unità di volume saturo

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume saturo (t/m ³) |
|---------------------|-----------------------------|-----------------------------|--------------|--|
| 0.90 | 132.704 | 96.647 | Meyerhof | 2.37 |
| 1.37 | 34.255 | 25.636 | Meyerhof | 2.14 |
| 1.51 | 2.32 | 1.661 | Meyerhof | 1.67 |
| 1.78 | 49.244 | 35.008 | Meyerhof | 2.20 |
| 2.93 | 12.382 | 8.792 | Meyerhof | 1.97 |
| 4.52 | 32.777 | 23.485 | Meyerhof | 2.13 |
| 5.40 | 11.105 | 9.558 | Meyerhof | 1.94 |
| 6.27 | 92.061 | 71.009 | Meyerhof | 2.31 |
| 6.58 | 24.724 | 18.953 | Meyerhof | 2.08 |
| 7.72 | 127.492 | 108.201 | Meyerhof | 2.36 |
| 8.27 | 269.271 | 207.229 | Meyerhof | 2.49 |

Prova n. 1**TERRENI INCOERENTI**

Densità relativa (%)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Baldi 1978 - Schmertmann 1976 | Schmertmann | Harman | Lancellotta 1983 | Jamiolkowski 1985 |
|------------------|--------------------------|--------------------------|-------------------------------|-------------|--------|------------------|-------------------|
| 0.90 | 132.704 | 96.647 | 100 | 100 | 100 | 100 | 100 |
| 1.37 | 34.255 | 25.636 | 54.79 | 68.15 | 67.93 | 55.52 | 75.59 |
| 1.51 | 2.32 | 1.661 | < 5 | < 5 | 5 | 5 | 5 |
| 1.78 | 49.244 | 35.008 | 60.47 | 72.68 | 72.57 | 61.26 | 76.66 |
| 2.93 | 12.382 | 8.792 | 16.58 | 13.34 | 17.26 | 16.99 | 27.7 |
| 4.52 | 32.777 | 23.485 | 38.07 | 37.27 | 40.25 | 38.66 | 43.14 |
| 5.40 | 11.105 | 9.558 | < 5 | < 5 | 5 | 5 | 5 |
| 6.27 | 92.061 | 71.009 | 61.15 | 63.21 | 65.12 | 61.94 | 60.1 |
| 6.58 | 24.724 | 18.953 | 22.34 | 12.35 | 17.5 | 22.8 | 19.5 |
| 7.72 | 127.492 | 108.201 | 67.3 | 69.25 | 71.06 | 68.14 | 63.17 |
| 8.27 | 269.271 | 207.229 | 86.77 | 93.23 | 93.72 | 87.77 | 81 |

Angolo di resistenza al taglio (°)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Durgunouglu-Mitchell 1973 | Caquot | Koppejan | De Beer | Schmertmann | Robertson & Campanella 1983 | Herminier | Meyerhof 1951 |
|------------------|--------------------------|--------------------------|---------------------------|--------|----------|---------|-------------|-----------------------------|-----------|---------------|
| 0.90 | 132.704 | 96.647 | 45 | 45 | 43.08 | 39.96 | 42 | 45 | 15 | 45 |
| 1.37 | 34.255 | 25.636 | 37.49 | 34.08 | 31.3 | 29.2 | 37.54 | 42.21 | 29.76 | 32.38 |
| 1.51 | 2.32 | 1.661 | 23.62 | 19.69 | 16.18 | 15.39 | 28.7 | 22.22 | 21.38 | 18.04 |
| 1.78 | 49.244 | 35.008 | 37.76 | 34.26 | 31.5 | 29.38 | 38.18 | 42.39 | 30.12 | 39.11 |
| 2.93 | 12.382 | 8.792 | 29.66 | 25.79 | 22.6 | 21.25 | 29.87 | 32.57 | 22.78 | 22.56 |
| 4.52 | 32.777 | 23.485 | 32.38 | 28.46 | 25.41 | 23.81 | 33.22 | 35.95 | 24.11 | 31.72 |
| 5.40 | 11.105 | 9.558 | 25.94 | 21.72 | 18.32 | 17.34 | 28.7 | 26.23 | 21.82 | 21.99 |
| 6.27 | 92.061 | 71.009 | 35.35 | 31.4 | 28.49 | 26.63 | 36.85 | 39.36 | 26.49 | 45 |
| 6.58 | 24.724 | 18.953 | 28.58 | 24.37 | 21.11 | 19.89 | 29.73 | 30.66 | 22.41 | 28.1 |
| 7.72 | 127.492 | 108.201 | 35.93 | 31.93 | 29.05 | 27.14 | 37.69 | 39.94 | 27.08 | 45 |
| 8.27 | 269.271 | 207.229 | 38.96 | 35.02 | 32.29 | 30.1 | 41.05 | 43.14 | 31.51 | 45 |

Modulo di Young (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Schmertmann | Robertson & Campanella (1983) | ISOPT-1 1988 Ey(50) |
|------------------|--------------------------|--------------------------|-------------|-------------------------------|---------------------|
| 0.90 | 132.704 | 96.647 | 331.76 | 265.41 | 530.82 |
| 1.37 | 34.255 | 25.636 | 85.64 | 68.51 | 267.94 |
| 1.51 | 2.32 | 1.661 | 5.80 | 4.64 | 35.73 |
| 1.78 | 49.244 | 35.008 | 123.11 | 98.49 | 358.42 |
| 2.93 | 12.382 | 8.792 | 30.95 | 24.76 | 178.29 |
| 4.52 | 32.777 | 23.485 | 81.94 | 65.55 | 377.84 |
| 5.40 | 11.105 | 9.558 | 27.76 | 22.21 | 171.02 |
| 6.27 | 92.061 | 71.009 | 230.15 | 184.12 | 774.67 |
| 6.58 | 24.724 | 18.953 | 61.81 | 49.45 | 358.94 |
| 7.72 | 127.492 | 108.201 | 318.73 | 254.98 | 980.41 |
| 8.27 | 269.271 | 207.229 | 673.18 | 538.54 | 1295.84 |

Modulo Edometrico (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Robertson & Campanella da Schmertmann | Lunne-Christoffersen 1983 - Robertson and Powell 1997 | Kulhaway-Mayne 1990 | Mitchell & Gardner 1975 | Buisman - Sanglerat |
|------------------|--------------------------|--------------------------|---------------------------------------|---|---------------------|-------------------------|---------------------|
| 0.90 | 132.704 | 96.647 | 84.19 | 280.28 | 1085.70 | 199.06 | 199.06 |
| 1.37 | 34.255 | 25.636 | 57.87 | 134.37 | 272.24 | 68.51 | 102.76 |
| 1.51 | 2.32 | 1.661 | 7.72 | 9.10 | 8.28 | 4.64 | 18.56 |
| 1.78 | 49.244 | 35.008 | 63.05 | 193.17 | 395.08 | 98.49 | 73.87 |
| 2.93 | 12.382 | 8.792 | 16.67 | 48.57 | 89.84 | 24.76 | 61.91 |
| 4.52 | 32.777 | 23.485 | 39.33 | 128.57 | 255.88 | 65.55 | 98.33 |
| 5.40 | 11.105 | 9.558 | 16.02 | 43.56 | 75.09 | 22.21 | 55.52 |
| 6.27 | 92.061 | 71.009 | 66.54 | 361.12 | 741.50 | 156.50 | 138.09 |
| 6.58 | 24.724 | 18.953 | 25.82 | 96.98 | 184.92 | 49.45 | 123.62 |
| 7.72 | 127.492 | 108.201 | 75.75 | 270.05 | 1031.42 | 191.24 | 191.24 |
| 8.27 | 269.271 | 207.229 | 101.25 | 548.13 | 2199.47 | 403.91 | 403.91 |

Prova n. 1

Modulo di deformazione a taglio

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | G (Kg/cm ²) |
|------------------|--------------------------|--------------------------|-----------------|-------------------------|
| 0.90 | 132.704 | 96.647 | Imai & Tomauchi | 554.93 |
| 1.37 | 34.255 | 25.636 | Imai & Tomauchi | 242.59 |
| 1.51 | 2.32 | 1.661 | Imai & Tomauchi | 46.82 |
| 1.78 | 49.244 | 35.008 | Imai & Tomauchi | 302.82 |
| 2.93 | 12.382 | 8.792 | Imai & Tomauchi | 130.27 |
| 4.52 | 32.777 | 23.485 | Imai & Tomauchi | 236.14 |
| 5.40 | 11.105 | 9.558 | Imai & Tomauchi | 121.89 |
| 6.27 | 92.061 | 71.009 | Imai & Tomauchi | 443.82 |
| 6.58 | 24.724 | 18.953 | Imai & Tomauchi | 198.77 |
| 7.72 | 127.492 | 108.201 | Imai & Tomauchi | 541.51 |
| 8.27 | 269.271 | 207.229 | Imai & Tomauchi | 855.07 |

Grado di sovraconsolidazione

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Stress-History | Piacentini Righi 1978 | Larsson 1991 S.G.I. | Ladd e Foot 1977 |
|------------------|--------------------------|--------------------------|----------------|-----------------------|---------------------|------------------|
| 0.90 | 132.704 | 96.647 | >9 | >9 | <0.5 | >9 |
| 1.37 | 34.255 | 25.636 | 3.11 | >9 | 1.09 | >9 |
| 1.51 | 2.32 | 1.661 | <0.5 | >9 | <0.5 | 1.22 |
| 1.78 | 49.244 | 35.008 | 3.23 | >9 | 1.06 | >9 |
| 2.93 | 12.382 | 8.792 | 0.58 | >9 | <0.5 | 6.5 |
| 4.52 | 32.777 | 23.485 | 1 | >9 | <0.5 | >9 |
| 5.40 | 11.105 | 9.558 | <0.5 | >9 | <0.5 | 2.18 |
| 6.27 | 92.061 | 71.009 | 1.81 | >9 | 1.55 | >9 |
| 6.58 | 24.724 | 18.953 | <0.5 | >9 | <0.5 | 4.47 |
| 7.72 | 127.492 | 108.201 | 2.01 | >9 | 1.43 | >9 |
| 8.27 | 269.271 | 207.229 | 3.75 | >9 | 0.95 | >9 |

Modulo di reazione Ko

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Ko |
|------------------|--------------------------|--------------------------|------------------------|------|
| 0.90 | 132.704 | 96.647 | Kulhawy & Mayne (1990) | 0.00 |
| 1.37 | 34.255 | 25.636 | Kulhawy & Mayne (1990) | 0.73 |
| 1.51 | 2.32 | 1.661 | Kulhawy & Mayne (1990) | 0.00 |
| 1.78 | 49.244 | 35.008 | Kulhawy & Mayne (1990) | 0.75 |
| 2.93 | 12.382 | 8.792 | Kulhawy & Mayne (1990) | 0.25 |
| 4.52 | 32.777 | 23.485 | Kulhawy & Mayne (1990) | 0.35 |
| 5.40 | 11.105 | 9.558 | Kulhawy & Mayne (1990) | 0.00 |
| 6.27 | 92.061 | 71.009 | Kulhawy & Mayne (1990) | 0.51 |
| 6.58 | 24.724 | 18.953 | Kulhawy & Mayne (1990) | 0.00 |
| 7.72 | 127.492 | 108.201 | Kulhawy & Mayne (1990) | 0.55 |
| 8.27 | 269.271 | 207.229 | Kulhawy & Mayne (1990) | 0.83 |

Fattori di compressibilità C Crm

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | C | Crm |
|------------------|--------------------------|--------------------------|---------|---------|
| 0.90 | 132.704 | 96.647 | 0.09421 | 0.01225 |
| 1.37 | 34.255 | 25.636 | 0.11689 | 0.0152 |
| 1.51 | 2.32 | 1.661 | 0.64028 | 0.08324 |
| 1.78 | 49.244 | 35.008 | 0.10607 | 0.01379 |
| 2.93 | 12.382 | 8.792 | 0.17441 | 0.02267 |
| 4.52 | 32.777 | 23.485 | 0.11845 | 0.0154 |
| 5.40 | 11.105 | 9.558 | 0.18677 | 0.02428 |
| 6.27 | 92.061 | 71.009 | 0.09516 | 0.01237 |
| 6.58 | 24.724 | 18.953 | 0.12079 | 0.0157 |
| 7.72 | 127.492 | 108.201 | 0.094 | 0.01222 |
| 8.27 | 269.271 | 207.229 | 0.00916 | 0.00119 |

Prova n. 1

Peso unità di volume

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|--|
| 0.90 | 132.704 | 96.647 | Meyerhof | 1.80 |
| 1.37 | 34.255 | 25.636 | Meyerhof | 1.80 |
| 1.51 | 2.32 | 1.661 | Meyerhof | 1.80 |
| 1.78 | 49.244 | 35.008 | Meyerhof | 1.80 |
| 2.93 | 12.382 | 8.792 | Meyerhof | 1.80 |
| 4.52 | 32.777 | 23.485 | Meyerhof | 1.80 |
| 5.40 | 11.105 | 9.558 | Meyerhof | 1.80 |
| 6.27 | 92.061 | 71.009 | Meyerhof | 1.80 |
| 6.58 | 24.724 | 18.953 | Meyerhof | 1.80 |
| 7.72 | 127.492 | 108.201 | Meyerhof | 1.80 |
| 8.27 | 269.271 | 207.229 | Meyerhof | 1.80 |

Peso unità di volume saturo

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume saturo (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|---|
| 0.90 | 132.704 | 96.647 | Meyerhof | 2.10 |
| 1.37 | 34.255 | 25.636 | Meyerhof | 2.10 |
| 1.51 | 2.32 | 1.661 | Meyerhof | 2.10 |
| 1.78 | 49.244 | 35.008 | Meyerhof | 2.10 |
| 2.93 | 12.382 | 8.792 | Meyerhof | 2.10 |
| 4.52 | 32.777 | 23.485 | Meyerhof | 2.10 |
| 5.40 | 11.105 | 9.558 | Meyerhof | 2.10 |
| 6.27 | 92.061 | 71.009 | Meyerhof | 2.10 |
| 6.58 | 24.724 | 18.953 | Meyerhof | 2.10 |
| 7.72 | 127.492 | 108.201 | Meyerhof | 2.10 |
| 8.27 | 269.271 | 207.229 | Meyerhof | 2.10 |

Liquefazione - Accelerazione sismica massima (g)=0

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Fattore di sicurezza a liquefazione |
|------------------|--------------------------|--------------------------|------------------------|-------------------------------------|
| 0.90 | 132.704 | 96.647 | Robertson & Wride 1997 | 0 |
| 1.37 | 34.255 | 25.636 | Robertson & Wride 1997 | 0 |
| 1.51 | 2.32 | 1.661 | Robertson & Wride 1997 | 0 |
| 1.78 | 49.244 | 35.008 | Robertson & Wride 1997 | 0 |
| 2.93 | 12.382 | 8.792 | Robertson & Wride 1997 | 0 |
| 4.52 | 32.777 | 23.485 | Robertson & Wride 1997 | 0 |
| 5.40 | 11.105 | 9.558 | Robertson & Wride 1997 | 0 |
| 6.27 | 92.061 | 71.009 | Robertson & Wride 1997 | 0 |
| 6.58 | 24.724 | 18.953 | Robertson & Wride 1997 | 0 |
| 7.72 | 127.492 | 108.201 | Robertson & Wride 1997 | 0 |
| 8.27 | 269.271 | 207.229 | Robertson & Wride 1997 | 0 |

Permeabilità

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Permeabilità (cm/s) |
|------------------|--------------------------|--------------------------|-----------------------|---------------------|
| 0.90 | 132.704 | 96.647 | Piacentini-Righi 1988 | 1E-11 |
| 1.37 | 34.255 | 25.636 | Piacentini-Righi 1988 | 1E-11 |
| 1.51 | 2.32 | 1.661 | Piacentini-Righi 1988 | 1E-11 |
| 1.78 | 49.244 | 35.008 | Piacentini-Righi 1988 | 1E-11 |
| 2.93 | 12.382 | 8.792 | Piacentini-Righi 1988 | 1E-11 |
| 4.52 | 32.777 | 23.485 | Piacentini-Righi 1988 | 1E-11 |
| 5.40 | 11.105 | 9.558 | Piacentini-Righi 1988 | 1E-11 |
| 6.27 | 92.061 | 71.009 | Piacentini-Righi 1988 | 1E-11 |
| 6.58 | 24.724 | 18.953 | Piacentini-Righi 1988 | 1E-11 |
| 7.72 | 127.492 | 108.201 | Piacentini-Righi 1988 | 1E-11 |
| 8.27 | 269.271 | 207.229 | Piacentini-Righi 1988 | 1E-11 |

Prova n. 1

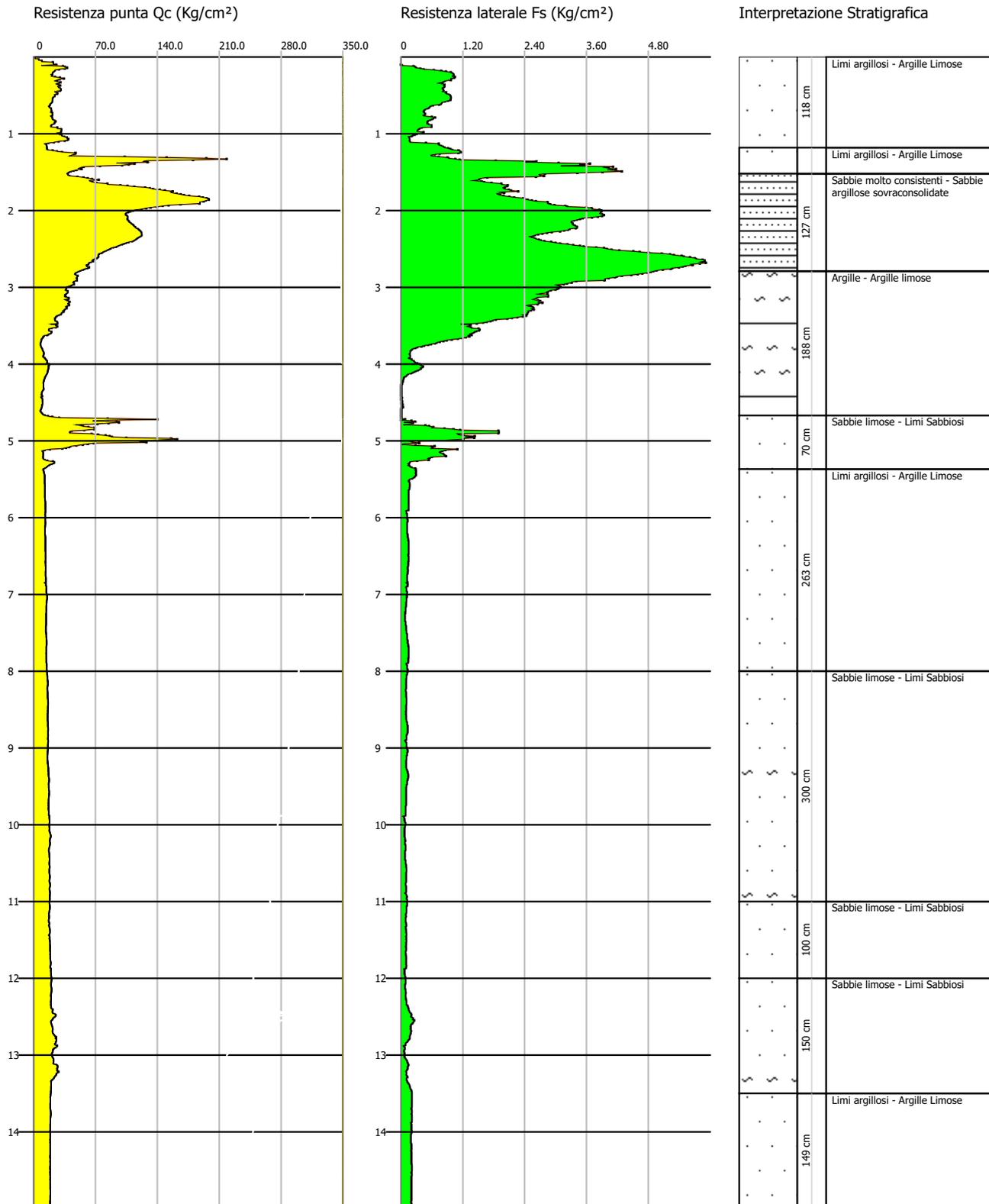
Coefficiente di consolidazione

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Coefficiente di consolidazione (cm ² /s) |
|---------------------|-----------------------------|-----------------------------|-----------------------|---|
| 0.90 | 132.704 | 96.647 | Piacentini-Righi 1988 | 3.98112E-06 |
| 1.37 | 34.255 | 25.636 | Piacentini-Righi 1988 | 1.02765E-06 |
| 1.51 | 2.32 | 1.661 | Piacentini-Righi 1988 | 6.96E-08 |
| 1.78 | 49.244 | 35.008 | Piacentini-Righi 1988 | 1.47732E-06 |
| 2.93 | 12.382 | 8.792 | Piacentini-Righi 1988 | 3.7146E-07 |
| 4.52 | 32.777 | 23.485 | Piacentini-Righi 1988 | 9.8331E-07 |
| 5.40 | 11.105 | 9.558 | Piacentini-Righi 1988 | 3.3315E-07 |
| 6.27 | 92.061 | 71.009 | Piacentini-Righi 1988 | 2.76183E-06 |
| 6.58 | 24.724 | 18.953 | Piacentini-Righi 1988 | 7.4172E-07 |
| 7.72 | 127.492 | 108.201 | Piacentini-Righi 1988 | 3.82476E-06 |
| 8.27 | 269.271 | 207.229 | Piacentini-Righi 1988 | 8.07813E-06 |

Probe CPTU - Piezocone Nr.2
 Strumento utilizzato PAGANI 200 kN (CPTU)

Committente: Comune di Livorno
 Cantiere: Parco Pertini - Livorno
 Località: Parco Pertini - Livorno

Data: 10/01/2019



Prova n. 2

PROVA CPTU2_MS2

Committente: Comune di Livorno
 Strumento utilizzato: PAGANI 200 kN (CPTU)
 Prova eseguita in data: 10/01/2019
 Profondità prova: 15.00 mt
 Località: Parco Pertini - Livorno

RESISTENZE / LITOLOGIE

Profondità
 qc Resistenza punta (Kg/cm²);
 fs Resistenza laterale (Kg/cm²);
 Tilt Inclinazione (°)
 Temp Temperatura (°)
 Fr fs/qcx100 (Schmertmann)
 qcn qc normalizzata (Kg/cm²);
 fsn fs normalizzato (Kg/cm²);
 U2 Pressione neutrale intorno al cono (Kg/cm²);
 Uo Pressione neutrale rilevata (Kg/cm²);
 Fc Contenuto in materiale fine(%)

| Profondità | qc | fs | U2 | Tilt | Temp | qc/fs | Fr | Uo | qcn | fsn | FC% |
|------------|--------|-------|-------|------|------|---------|-------|-----|--------|-------|-------|
| 0.01 | 1.122 | 0.0 | 0.00 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.122 | 0.0 | 237.1 |
| 0.02 | 1.122 | 0.0 | 0.00 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.122 | 0.0 | 237.1 |
| 0.03 | 5.404 | 0.0 | 0.00 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 4.404 | 0.0 | 63.91 |
| 0.04 | 5.404 | 0.0 | 0.00 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 4.404 | 0.0 | 63.91 |
| 0.05 | 8.973 | 0.0 | 0.02 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 7.973 | 0.0 | 48.54 |
| 0.06 | 8.973 | 0.0 | 0.02 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 7.973 | 0.0 | 48.54 |
| 0.07 | 21.72 | 0.0 | -0.14 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 20.72 | 0.0 | 29.59 |
| 0.08 | 21.72 | 0.0 | -0.14 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 20.72 | 0.0 | 29.59 |
| 0.09 | 21.72 | 0.0 | -0.14 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 20.72 | 0.0 | 29.59 |
| 0.10 | 25.594 | 0.0 | -0.12 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 24.594 | 0.0 | 26.85 |
| 0.11 | 8.464 | 0.02 | 0.02 | 0.4 | 0.0 | 423.2 | 0.236 | 0.0 | 7.464 | 0.237 | 38.58 |
| 0.12 | 33.038 | 0.245 | -0.12 | 0.4 | 0.0 | 134.849 | 0.742 | 0.0 | 32.038 | 0.742 | 20.6 |
| 0.13 | 35.282 | 0.265 | -0.06 | 0.4 | 0.0 | 133.14 | 0.751 | 0.0 | 34.282 | 0.752 | 19.8 |

Prova n. 2

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|-------|
| 0.14 | 37.933 | 0.286 | -0.05 | 0.4 | 0.0 | 132.633 | 0.754 | 0.0 | 36.933 | 0.755 | 18.88 |
| 0.15 | 35.384 | 0.377 | -0.03 | 0.4 | 0.0 | 93.857 | 1.065 | 0.0 | 34.384 | 1.066 | 22.57 |
| 0.16 | 28.654 | 0.438 | 0.00 | 0.4 | 0.0 | 65.42 | 1.529 | 0.0 | 27.654 | 1.53 | 29.24 |
| 0.17 | 23.963 | 0.642 | 0.00 | 0.4 | 0.0 | 37.326 | 2.679 | 0.0 | 22.963 | 2.683 | 39.24 |
| 0.18 | 23.147 | 0.785 | -0.01 | 0.4 | 0.0 | 29.487 | 3.391 | 0.0 | 22.147 | 3.397 | 43.35 |
| 0.19 | 22.229 | 0.877 | -0.13 | 0.4 | 0.0 | 25.347 | 3.945 | 0.0 | 21.229 | 3.952 | 46.55 |
| 0.20 | 21.108 | 0.969 | -0.10 | 0.4 | 0.0 | 21.783 | 4.591 | 0.0 | 20.108 | 4.6 | 50.17 |
| 0.21 | 20.904 | 0.989 | -0.12 | 0.4 | 0.0 | 21.137 | 4.731 | 0.0 | 19.904 | 4.741 | 50.9 |
| 0.22 | 20.904 | 1.01 | -0.11 | 0.4 | 0.0 | 20.697 | 4.832 | 0.0 | 19.904 | 4.842 | 51.27 |
| 0.23 | 19.272 | 1.02 | -0.12 | 0.4 | 0.0 | 18.894 | 5.293 | 0.0 | 18.272 | 5.306 | 54.69 |
| 0.24 | 20.904 | 1.01 | -0.13 | 0.4 | 0.0 | 20.697 | 4.832 | 0.0 | 19.904 | 4.843 | 51.28 |
| 0.25 | 19.782 | 0.999 | -0.01 | 0.4 | 0.0 | 19.802 | 5.05 | 0.0 | 18.782 | 5.063 | 53.26 |
| 0.26 | 24.167 | 1.05 | -0.13 | 0.4 | 0.0 | 23.016 | 4.345 | 0.0 | 23.167 | 4.354 | 46.48 |
| 0.27 | 29.673 | 1.03 | -0.01 | 0.4 | 0.0 | 28.809 | 3.471 | 0.0 | 28.673 | 3.478 | 39.11 |
| 0.28 | 34.16 | 0.969 | -0.01 | 0.4 | 0.0 | 35.253 | 2.837 | 0.0 | 33.16 | 2.841 | 33.87 |
| 0.29 | 29.265 | 0.969 | 0.00 | 0.4 | 0.0 | 30.201 | 3.311 | 0.0 | 28.265 | 3.318 | 38.66 |
| 0.30 | 26.614 | 0.969 | 0.00 | 0.4 | 0.0 | 27.465 | 3.641 | 0.0 | 25.614 | 3.649 | 41.8 |
| 0.31 | 23.861 | 0.857 | 0.00 | 0.4 | 0.0 | 27.842 | 3.592 | 0.0 | 22.861 | 3.601 | 43.66 |
| 0.32 | 26.206 | 0.826 | -0.02 | 0.4 | 0.0 | 31.726 | 3.152 | 0.0 | 25.206 | 3.16 | 39.92 |
| 0.33 | 30.183 | 0.795 | -0.01 | 0.4 | 0.0 | 37.966 | 2.634 | 0.0 | 29.183 | 2.64 | 34.93 |
| 0.34 | 28.246 | 0.724 | 0.00 | 0.4 | 0.0 | 39.014 | 2.563 | 0.0 | 27.246 | 2.569 | 35.7 |
| 0.35 | 25.085 | 0.806 | 0.00 | 0.4 | 0.0 | 31.123 | 3.213 | 0.0 | 24.085 | 3.222 | 41.02 |
| 0.36 | 26.308 | 0.846 | -0.01 | 0.4 | 0.0 | 31.097 | 3.216 | 0.0 | 25.308 | 3.225 | 40.15 |
| 0.37 | 29.979 | 0.826 | -0.01 | 0.4 | 0.0 | 36.294 | 2.755 | 0.0 | 28.979 | 2.762 | 35.65 |
| 0.38 | 27.124 | 0.846 | 0.00 | 0.4 | 0.0 | 32.061 | 3.119 | 0.0 | 26.124 | 3.128 | 39.15 |
| 0.39 | 27.634 | 0.836 | -0.01 | 0.4 | 0.0 | 33.055 | 3.025 | 0.0 | 26.634 | 3.034 | 38.38 |
| 0.40 | 28.246 | 0.806 | -0.01 | 0.3 | 0.0 | 35.045 | 2.854 | 0.0 | 27.246 | 2.862 | 37.17 |
| 0.41 | 29.775 | 0.795 | -0.03 | 0.3 | 0.0 | 37.453 | 2.67 | 0.0 | 28.775 | 2.678 | 35.35 |
| 0.42 | 30.387 | 0.806 | -0.03 | 0.4 | 0.0 | 37.701 | 2.652 | 0.0 | 29.387 | 2.66 | 34.92 |
| 0.43 | 30.285 | 0.816 | 0.02 | 0.4 | 0.0 | 37.114 | 2.694 | 0.0 | 29.285 | 2.702 | 35.18 |
| 0.44 | 29.571 | 0.826 | -0.02 | 0.4 | 0.0 | 35.8 | 2.793 | 0.0 | 28.571 | 2.802 | 36.08 |
| 0.45 | 23.759 | 0.806 | -0.03 | 0.4 | 0.0 | 29.478 | 3.392 | 0.0 | 22.759 | 3.405 | 42.88 |
| 0.46 | 24.269 | 0.877 | -0.03 | 0.4 | 0.0 | 27.673 | 3.614 | 0.0 | 23.269 | 3.628 | 43.45 |
| 0.47 | 26.716 | 0.867 | -0.26 | 0.4 | 0.0 | 30.814 | 3.245 | 0.0 | 25.716 | 3.257 | 40.02 |
| 0.48 | 26.41 | 0.877 | -0.11 | 0.4 | 0.0 | 30.114 | 3.321 | 0.0 | 25.41 | 3.333 | 40.57 |
| 0.49 | 23.249 | 0.928 | -0.05 | 0.4 | 0.0 | 25.053 | 3.992 | 0.0 | 22.249 | 4.009 | 45.88 |
| 0.50 | 23.453 | 0.948 | -0.06 | 0.4 | 0.0 | 24.739 | 4.042 | 0.0 | 22.453 | 4.06 | 45.92 |
| 0.51 | 23.453 | 0.959 | -0.07 | 0.4 | 0.0 | 24.456 | 4.089 | 0.0 | 22.453 | 4.107 | 46.11 |
| 0.52 | 21.924 | 0.959 | -0.02 | 0.4 | 0.0 | 22.861 | 4.374 | 0.0 | 20.924 | 4.395 | 48.6 |
| 0.53 | 21.006 | 0.969 | 0.00 | 0.4 | 0.0 | 21.678 | 4.613 | 0.0 | 20.006 | 4.637 | 50.41 |
| 0.54 | 21.006 | 0.959 | -0.01 | 0.4 | 0.0 | 21.904 | 4.565 | 0.0 | 20.006 | 4.589 | 50.23 |
| 0.55 | 20.7 | 0.959 | -0.01 | 0.4 | 0.0 | 21.585 | 4.633 | 0.0 | 19.7 | 4.658 | 50.8 |
| 0.56 | 20.904 | 0.959 | -0.01 | 0.4 | 0.0 | 21.798 | 4.588 | 0.0 | 19.904 | 4.613 | 50.42 |
| 0.57 | 20.598 | 0.918 | -0.01 | 0.4 | 0.0 | 22.438 | 4.457 | 0.0 | 19.598 | 4.482 | 50.23 |
| 0.58 | 20.598 | 0.857 | -0.01 | 0.4 | 0.0 | 24.035 | 4.161 | 0.0 | 19.598 | 4.184 | 49.06 |
| 0.59 | 20.292 | 0.795 | 0.00 | 0.4 | 0.0 | 25.525 | 3.918 | 0.0 | 19.292 | 3.941 | 48.37 |
| 0.60 | 19.272 | 0.785 | 0.00 | 0.4 | 0.0 | 24.55 | 4.073 | 0.0 | 18.272 | 4.099 | 50.13 |
| 0.61 | 18.253 | 0.775 | 0.00 | 0.4 | 0.0 | 23.552 | 4.246 | 0.0 | 17.253 | 4.275 | 52.03 |
| 0.62 | 18.049 | 0.744 | 0.00 | 0.4 | 0.0 | 24.259 | 4.122 | 0.0 | 17.049 | 4.151 | 51.77 |
| 0.63 | 17.845 | 0.622 | 0.00 | 0.4 | 0.0 | 28.69 | 3.486 | 0.0 | 16.845 | 3.511 | 49.23 |
| 0.64 | 16.621 | 0.571 | 0.00 | 0.4 | 0.0 | 29.109 | 3.435 | 0.0 | 15.621 | 3.462 | 50.57 |
| 0.65 | 17.029 | 0.551 | 0.00 | 0.4 | 0.0 | 30.906 | 3.236 | 0.0 | 16.029 | 3.261 | 49.07 |
| 0.66 | 17.539 | 0.54 | 0.00 | 0.4 | 0.0 | 32.48 | 3.079 | 0.0 | 16.539 | 3.102 | 47.64 |
| 0.67 | 19.068 | 0.51 | 0.00 | 0.4 | 0.0 | 37.388 | 2.675 | 0.0 | 18.068 | 2.694 | 43.76 |
| 0.68 | 19.374 | 0.469 | 0.00 | 0.4 | 0.0 | 41.309 | 2.421 | 0.0 | 18.374 | 2.438 | 42.02 |
| 0.69 | 19.272 | 0.449 | 0.00 | 0.4 | 0.0 | 42.922 | 2.33 | 0.0 | 18.272 | 2.347 | 41.6 |
| 0.70 | 19.68 | 0.438 | 0.00 | 0.4 | 0.0 | 44.932 | 2.226 | 0.0 | 18.68 | 2.242 | 40.56 |
| 0.71 | 19.578 | 0.428 | 0.00 | 0.4 | 0.0 | 45.743 | 2.186 | 0.0 | 18.578 | 2.202 | 40.42 |
| 0.72 | 18.864 | 0.438 | 0.00 | 0.4 | 0.0 | 43.068 | 2.322 | 0.0 | 17.864 | 2.34 | 41.99 |
| 0.73 | 20.904 | 0.449 | 0.00 | 0.4 | 0.0 | 46.557 | 2.148 | 0.0 | 19.904 | 2.163 | 38.91 |
| 0.74 | 20.802 | 0.469 | 0.00 | 0.4 | 0.0 | 44.354 | 2.255 | 0.0 | 19.802 | 2.271 | 39.65 |
| 0.75 | 20.904 | 0.459 | 0.00 | 0.4 | 0.0 | 45.542 | 2.196 | 0.0 | 19.904 | 2.212 | 39.2 |
| 0.76 | 20.496 | 0.428 | 0.00 | 0.4 | 0.0 | 47.888 | 2.088 | 0.0 | 19.496 | 2.104 | 38.92 |
| 0.77 | 18.762 | 0.449 | 0.00 | 0.4 | 0.0 | 41.786 | 2.393 | 0.0 | 17.762 | 2.413 | 42.53 |
| 0.78 | 20.088 | 0.602 | 0.00 | 0.4 | 0.0 | 33.369 | 2.997 | 0.0 | 19.088 | 3.02 | 44.39 |
| 0.79 | 20.394 | 0.663 | 0.00 | 0.4 | 0.0 | 30.76 | 3.251 | 0.0 | 19.394 | 3.276 | 45.32 |

Prova n. 2

| | | | | | | | | | | | |
|------|---------|-------|------|-----|-----|---------|-------|-----|---------|-------|-------|
| 0.80 | 20.598 | 0.622 | 0.00 | 0.4 | 0.0 | 33.116 | 3.02 | 0.0 | 19.598 | 3.043 | 43.99 |
| 0.81 | 20.7 | 0.591 | 0.00 | 0.4 | 0.0 | 35.025 | 2.855 | 0.0 | 19.7 | 2.878 | 43.06 |
| 0.82 | 21.618 | 0.561 | 0.00 | 0.4 | 0.0 | 38.535 | 2.595 | 0.0 | 20.618 | 2.615 | 40.83 |
| 0.83 | 23.351 | 0.52 | 0.00 | 0.4 | 0.0 | 44.906 | 2.227 | 0.0 | 22.351 | 2.243 | 37.3 |
| 0.84 | 24.575 | 0.51 | 0.00 | 0.4 | 0.0 | 48.186 | 2.075 | 0.0 | 23.575 | 2.09 | 35.47 |
| 0.85 | 22.841 | 0.5 | 0.00 | 0.4 | 0.0 | 45.682 | 2.189 | 0.0 | 21.841 | 2.205 | 37.49 |
| 0.86 | 23.453 | 0.51 | 0.00 | 0.4 | 0.0 | 45.986 | 2.175 | 0.0 | 22.453 | 2.191 | 36.91 |
| 0.87 | 22.331 | 0.5 | 0.00 | 0.4 | 0.0 | 44.662 | 2.239 | 0.0 | 21.331 | 2.257 | 38.21 |
| 0.88 | 20.088 | 0.53 | 0.00 | 0.4 | 0.0 | 37.902 | 2.638 | 0.0 | 19.088 | 2.662 | 42.53 |
| 0.89 | 19.068 | 0.591 | 0.00 | 0.4 | 0.0 | 32.264 | 3.099 | 0.0 | 18.068 | 3.129 | 46 |
| 0.90 | 19.068 | 0.591 | 0.00 | 0.4 | 0.0 | 32.264 | 3.099 | 0.0 | 18.068 | 3.129 | 46 |
| 0.91 | 19.068 | 0.591 | 0.00 | 0.4 | 0.0 | 32.264 | 3.099 | 0.0 | 18.068 | 3.129 | 46 |
| 0.92 | 26.614 | 0.398 | 0.04 | 0.4 | 0.0 | 66.869 | 1.495 | 0.0 | 25.614 | 1.506 | 30.27 |
| 0.93 | 26.308 | 0.357 | 0.04 | 0.4 | 0.0 | 73.692 | 1.357 | 0.0 | 25.308 | 1.367 | 29.43 |
| 0.94 | 30.897 | 0.337 | 0.05 | 0.4 | 0.0 | 91.682 | 1.091 | 0.0 | 29.897 | 1.097 | 24.78 |
| 0.95 | 31.203 | 0.316 | 0.05 | 0.3 | 0.0 | 98.744 | 1.013 | 0.0 | 30.203 | 1.019 | 23.97 |
| 0.96 | 30.591 | 0.316 | 0.05 | 0.3 | 0.0 | 96.807 | 1.033 | 0.0 | 29.591 | 1.04 | 24.44 |
| 0.97 | 30.081 | 0.306 | 0.05 | 0.3 | 0.0 | 98.304 | 1.017 | 0.0 | 29.081 | 1.024 | 24.56 |
| 0.98 | 30.693 | 0.438 | 0.05 | 0.3 | 0.0 | 70.075 | 1.427 | 0.0 | 29.693 | 1.436 | 27.49 |
| 0.99 | 26.206 | 0.418 | 0.05 | 0.3 | 0.0 | 62.694 | 1.595 | 0.0 | 25.206 | 1.607 | 31.24 |
| 1.00 | 27.736 | 0.306 | 0.00 | 0.2 | 0.0 | 90.641 | 1.103 | 0.0 | 26.736 | 1.111 | 26.55 |
| 1.01 | 28.756 | 0.265 | 0.00 | 0.2 | 0.0 | 108.513 | 0.922 | 0.0 | 27.756 | 0.928 | 24.38 |
| 1.02 | 31.203 | 0.224 | 0.00 | 0.2 | 0.0 | 139.299 | 0.718 | 0.0 | 30.203 | 0.723 | 21.2 |
| 1.03 | 31.611 | 0.204 | 0.00 | 0.2 | 0.0 | 154.956 | 0.645 | 0.0 | 30.611 | 0.65 | 20.25 |
| 1.04 | 34.466 | 0.143 | 0.05 | 0.2 | 0.0 | 241.021 | 0.415 | 0.0 | 33.466 | 0.417 | 16.4 |
| 1.05 | 37.423 | 0.153 | 0.13 | 0.3 | 0.0 | 244.595 | 0.409 | 0.0 | 36.423 | 0.411 | 15.3 |
| 1.06 | 37.423 | 0.153 | 0.13 | 0.3 | 0.0 | 244.595 | 0.409 | 0.0 | 36.423 | 0.411 | 15.3 |
| 1.07 | 39.055 | 0.163 | 0.10 | 0.5 | 0.0 | 239.601 | 0.417 | 0.0 | 38.055 | 0.42 | 14.89 |
| 1.08 | 37.933 | 0.163 | 0.08 | 0.6 | 0.0 | 232.718 | 0.43 | 0.0 | 36.933 | 0.432 | 15.39 |
| 1.09 | 35.18 | 0.153 | 0.08 | 0.6 | 0.0 | 229.935 | 0.435 | 0.0 | 34.18 | 0.438 | 16.39 |
| 1.10 | 28.246 | 0.163 | 0.08 | 0.6 | 0.0 | 173.288 | 0.577 | 0.0 | 27.246 | 0.582 | 21.08 |
| 1.11 | 22.739 | 0.173 | 0.08 | 0.6 | 0.0 | 131.439 | 0.761 | 0.0 | 21.739 | 0.768 | 26.5 |
| 1.12 | 16.417 | 0.489 | 0.08 | 0.6 | 0.0 | 33.573 | 2.979 | 0.0 | 15.417 | 3.02 | 48.67 |
| 1.13 | 12.236 | 0.734 | 0.08 | 0.7 | 0.0 | 16.67 | 5.999 | 0.0 | 11.236 | 6.112 | 68.64 |
| 1.14 | 13.46 | 0.724 | 0.08 | 0.7 | 0.0 | 18.591 | 5.379 | 0.0 | 12.46 | 5.472 | 63.88 |
| 1.15 | 13.97 | 0.744 | 0.08 | 0.7 | 0.0 | 18.777 | 5.326 | 0.0 | 12.97 | 5.415 | 62.72 |
| 1.16 | 14.174 | 0.785 | 0.08 | 0.7 | 0.0 | 18.056 | 5.538 | 0.0 | 13.174 | 5.631 | 63.12 |
| 1.17 | 14.378 | 0.816 | 0.08 | 0.7 | 0.0 | 17.62 | 5.675 | 0.0 | 13.378 | 5.769 | 63.24 |
| 1.18 | 14.378 | 0.846 | 0.08 | 0.7 | 0.0 | 16.995 | 5.884 | 0.0 | 13.378 | 5.982 | 63.96 |
| 1.19 | 14.378 | 0.918 | 0.09 | 0.7 | 0.0 | 15.662 | 6.385 | 0.0 | 13.378 | 6.492 | 65.63 |
| 1.20 | 14.378 | 0.959 | 0.08 | 0.7 | 0.0 | 14.993 | 6.67 | 0.0 | 13.378 | 6.783 | 66.54 |
| 1.21 | 15.194 | 0.999 | 0.09 | 0.7 | 0.0 | 15.209 | 6.575 | 0.0 | 14.194 | 6.681 | 64.83 |
| 1.22 | 21.414 | 1.122 | 0.12 | 0.7 | 0.0 | 19.086 | 5.24 | 0.0 | 20.414 | 5.3 | 52.39 |
| 1.23 | 26.206 | 1.142 | 0.14 | 0.7 | 0.0 | 22.947 | 4.358 | 0.0 | 25.206 | 4.399 | 45.08 |
| 1.24 | 31.917 | 1.173 | 0.15 | 0.7 | 0.0 | 27.21 | 3.675 | 0.0 | 30.917 | 3.704 | 38.78 |
| 1.25 | 47.416 | 1.122 | 0.16 | 0.8 | 0.0 | 42.26 | 2.366 | 0.0 | 46.416 | 2.379 | 26.75 |
| 1.26 | 47.008 | 0.755 | 0.11 | 0.8 | 0.0 | 62.262 | 1.606 | 0.0 | 46.008 | 1.615 | 22.65 |
| 1.27 | 44.561 | 0.653 | 0.08 | 0.8 | 0.0 | 68.24 | 1.465 | 0.0 | 43.561 | 1.474 | 22.44 |
| 1.28 | 42.827 | 0.581 | 0.07 | 0.8 | 0.0 | 73.713 | 1.357 | 0.0 | 41.827 | 1.365 | 22.23 |
| 1.29 | 40.584 | 0.591 | 0.06 | 0.8 | 0.0 | 68.67 | 1.456 | 0.0 | 39.584 | 1.466 | 23.64 |
| 1.30 | 102.99 | 0.734 | 0.08 | 0.5 | 0.0 | 140.313 | 0.713 | 0.0 | 101.99 | 0.715 | 8.42 |
| 1.31 | 150.406 | 0.908 | 0.10 | 0.2 | 0.0 | 165.645 | 0.604 | 0.0 | 149.406 | 0.605 | 4.99 |
| 1.32 | 195.476 | 0.928 | 0.10 | 0.0 | 0.0 | 210.642 | 0.475 | 0.0 | 194.476 | 0.475 | 2.6 |
| 1.33 | 218.522 | 1.06 | 0.12 | 0.5 | 0.0 | 206.153 | 0.485 | 0.0 | 217.522 | 0.486 | 2.16 |
| 1.34 | 180.487 | 1.142 | 0.11 | 0.7 | 0.0 | 158.045 | 0.633 | 0.0 | 179.487 | 0.634 | 4.17 |
| 1.35 | 127.666 | 1.846 | 0.10 | 0.7 | 0.0 | 69.158 | 1.446 | 0.0 | 126.666 | 1.449 | 11.47 |
| 1.36 | 124.301 | 2.641 | 0.12 | 0.8 | 0.0 | 47.066 | 2.125 | 0.0 | 123.301 | 2.129 | 15.02 |
| 1.37 | 128.992 | 2.406 | 0.12 | 0.8 | 0.0 | 53.613 | 1.865 | 0.0 | 127.992 | 1.869 | 13.51 |
| 1.38 | 93.914 | 3.069 | 0.13 | 0.9 | 0.0 | 30.601 | 3.268 | 0.0 | 92.914 | 3.278 | 22.34 |
| 1.39 | 114.104 | 3.681 | 0.13 | 0.9 | 0.0 | 30.998 | 3.226 | 0.0 | 113.104 | 3.234 | 20.21 |
| 1.40 | 107.68 | 3.477 | 0.13 | 0.9 | 0.0 | 30.969 | 3.229 | 0.0 | 106.68 | 3.238 | 20.79 |
| 1.41 | 100.033 | 3.61 | 0.13 | 0.9 | 0.0 | 27.71 | 3.609 | 0.0 | 99.033 | 3.619 | 22.9 |
| 1.42 | 75.152 | 3.11 | 0.12 | 0.9 | 0.0 | 24.165 | 4.138 | 0.0 | 74.152 | 4.154 | 27.95 |
| 1.43 | 56.491 | 4.13 | 0.13 | 0.9 | 0.0 | 13.678 | 7.311 | 0.0 | 55.491 | 7.349 | 40.85 |
| 1.44 | 53.636 | 3.956 | 0.13 | 0.9 | 0.0 | 13.558 | 7.376 | 0.0 | 52.636 | 7.416 | 41.81 |
| 1.45 | 50.679 | 4.048 | 0.13 | 0.9 | 0.0 | 12.52 | 7.988 | 0.0 | 49.679 | 8.034 | 44.17 |

Prova n. 2

| | | | | | | | | | | | |
|------|---------|-------|------|-----|-----|--------|--------|-----|---------|--------|-------|
| 1.46 | 54.248 | 4.191 | 0.13 | 0.9 | 0.0 | 12.944 | 7.726 | 0.0 | 53.248 | 7.768 | 42.48 |
| 1.47 | 48.232 | 4.018 | 0.14 | 0.9 | 0.0 | 12.004 | 8.331 | 0.0 | 47.232 | 8.383 | 45.78 |
| 1.48 | 45.071 | 4.181 | 0.15 | 0.9 | 0.0 | 10.78 | 9.276 | 0.0 | 44.071 | 9.339 | 49.03 |
| 1.49 | 41.604 | 4.303 | 0.16 | 1.0 | 0.0 | 9.669 | 10.343 | 0.0 | 40.604 | 10.419 | 52.67 |
| 1.50 | 39.564 | 3.926 | 0.16 | 1.0 | 0.0 | 10.077 | 9.923 | 0.0 | 38.564 | 10.0 | 52.72 |
| 1.51 | 37.933 | 3.436 | 0.16 | 1.0 | 0.0 | 11.04 | 9.058 | 0.0 | 36.933 | 9.132 | 51.62 |
| 1.52 | 37.423 | 2.804 | 0.16 | 1.0 | 0.0 | 13.346 | 7.493 | 0.0 | 36.423 | 7.555 | 48.13 |
| 1.53 | 38.341 | 2.692 | 0.16 | 1.0 | 0.0 | 14.243 | 7.021 | 0.0 | 37.341 | 7.079 | 46.47 |
| 1.54 | 38.647 | 2.702 | 0.16 | 1.0 | 0.0 | 14.303 | 6.991 | 0.0 | 37.647 | 7.049 | 46.25 |
| 1.55 | 40.38 | 2.784 | 0.13 | 1.0 | 0.0 | 14.504 | 6.895 | 0.0 | 39.38 | 6.949 | 45.23 |
| 1.56 | 49.455 | 2.631 | 0.11 | 1.0 | 0.0 | 18.797 | 5.32 | 0.0 | 48.455 | 5.354 | 37.47 |
| 1.57 | 56.287 | 1.683 | 0.11 | 1.0 | 0.0 | 33.444 | 2.99 | 0.0 | 55.287 | 3.007 | 27.33 |
| 1.58 | 61.182 | 1.55 | 0.11 | 1.0 | 0.0 | 39.472 | 2.533 | 0.0 | 60.182 | 2.547 | 24.25 |
| 1.59 | 65.873 | 1.509 | 0.11 | 1.0 | 0.0 | 43.653 | 2.291 | 0.0 | 64.873 | 2.302 | 22.21 |
| 1.60 | 73.622 | 1.519 | 0.11 | 1.0 | 0.0 | 48.467 | 2.063 | 0.0 | 72.622 | 2.072 | 19.83 |
| 1.61 | 62.915 | 1.397 | 0.12 | 1.0 | 0.0 | 45.036 | 2.22 | 0.0 | 61.915 | 2.232 | 22.42 |
| 1.62 | 63.731 | 1.57 | 0.12 | 1.0 | 0.0 | 40.593 | 2.463 | 0.0 | 62.731 | 2.476 | 23.43 |
| 1.63 | 66.382 | 1.621 | 0.12 | 1.0 | 0.0 | 40.951 | 2.442 | 0.0 | 65.382 | 2.454 | 22.84 |
| 1.64 | 70.869 | 1.764 | 0.12 | 1.0 | 0.0 | 40.175 | 2.489 | 0.0 | 69.869 | 2.501 | 22.29 |
| 1.65 | 83.411 | 1.958 | 0.12 | 1.0 | 0.0 | 42.6 | 2.347 | 0.0 | 82.411 | 2.357 | 19.84 |
| 1.66 | 83.411 | 1.958 | 0.12 | 1.0 | 0.0 | 42.6 | 2.347 | 0.0 | 82.411 | 2.357 | 19.84 |
| 1.67 | 98.197 | 2.08 | 0.13 | 1.0 | 0.0 | 47.21 | 2.118 | 0.0 | 97.197 | 2.126 | 17.14 |
| 1.68 | 106.151 | 2.07 | 0.13 | 1.0 | 0.0 | 51.281 | 1.95 | 0.0 | 105.151 | 1.956 | 15.61 |
| 1.69 | 113.9 | 2.029 | 0.13 | 1.0 | 0.0 | 56.136 | 1.781 | 0.0 | 112.9 | 1.787 | 14.15 |
| 1.70 | 126.341 | 1.988 | 0.13 | 1.0 | 0.0 | 63.552 | 1.574 | 0.0 | 125.341 | 1.578 | 12.23 |
| 1.71 | 131.439 | 1.988 | 0.14 | 1.0 | 0.0 | 66.116 | 1.512 | 0.0 | 130.439 | 1.517 | 11.6 |
| 1.72 | 135.11 | 2.019 | 0.14 | 1.0 | 0.0 | 66.919 | 1.494 | 0.0 | 134.11 | 1.498 | 11.29 |
| 1.73 | 142.656 | 2.101 | 0.14 | 0.9 | 0.0 | 67.899 | 1.473 | 0.0 | 141.656 | 1.476 | 10.77 |
| 1.74 | 148.366 | 2.141 | 0.14 | 0.9 | 0.0 | 69.298 | 1.443 | 0.0 | 147.366 | 1.447 | 10.33 |
| 1.75 | 157.238 | 2.284 | 0.14 | 0.9 | 0.0 | 68.843 | 1.453 | 0.0 | 156.238 | 1.456 | 9.96 |
| 1.76 | 154.587 | 1.927 | 0.15 | 0.9 | 0.0 | 80.222 | 1.247 | 0.0 | 153.587 | 1.249 | 8.97 |
| 1.77 | 156.116 | 2.009 | 0.15 | 0.9 | 0.0 | 77.708 | 1.287 | 0.0 | 155.116 | 1.29 | 9.13 |
| 1.78 | 161.826 | 1.866 | 0.15 | 0.9 | 0.0 | 86.723 | 1.153 | 0.0 | 160.826 | 1.156 | 8.14 |
| 1.79 | 166.415 | 1.886 | 0.15 | 0.9 | 0.0 | 88.237 | 1.133 | 0.0 | 165.415 | 1.136 | 7.84 |
| 1.80 | 170.086 | 1.937 | 0.15 | 0.9 | 0.0 | 87.809 | 1.139 | 0.0 | 169.086 | 1.141 | 7.73 |
| 1.81 | 175.898 | 1.999 | 0.15 | 0.9 | 0.0 | 87.993 | 1.136 | 0.0 | 174.898 | 1.139 | 7.51 |
| 1.82 | 187.217 | 2.111 | 0.16 | 0.9 | 0.0 | 88.686 | 1.128 | 0.0 | 186.217 | 1.13 | 7.08 |
| 1.83 | 191.398 | 2.203 | 0.16 | 0.9 | 0.0 | 86.881 | 1.151 | 0.0 | 190.398 | 1.153 | 7.07 |
| 1.84 | 195.578 | 2.386 | 0.16 | 0.9 | 0.0 | 81.969 | 1.22 | 0.0 | 194.578 | 1.222 | 7.32 |
| 1.85 | 197.516 | 2.406 | 0.16 | 0.8 | 0.0 | 82.093 | 1.218 | 0.0 | 196.516 | 1.221 | 7.25 |
| 1.86 | 198.23 | 2.468 | 0.17 | 0.8 | 0.0 | 80.32 | 1.245 | 0.0 | 197.23 | 1.247 | 7.38 |
| 1.87 | 194.661 | 2.549 | 0.17 | 0.8 | 0.0 | 76.368 | 1.309 | 0.0 | 193.661 | 1.312 | 7.82 |
| 1.88 | 192.315 | 2.631 | 0.17 | 0.8 | 0.0 | 73.096 | 1.368 | 0.0 | 191.315 | 1.371 | 8.2 |
| 1.89 | 187.727 | 2.855 | 0.17 | 0.8 | 0.0 | 65.754 | 1.521 | 0.0 | 186.727 | 1.524 | 9.12 |
| 1.90 | 187.727 | 2.855 | 0.17 | 0.8 | 0.0 | 65.754 | 1.521 | 0.0 | 186.727 | 1.524 | 9.12 |
| 1.91 | 187.727 | 2.855 | 0.17 | 0.8 | 0.0 | 65.754 | 1.521 | 0.0 | 186.727 | 1.524 | 9.12 |
| 1.92 | 166.109 | 2.906 | 0.19 | 0.9 | 0.0 | 57.161 | 1.749 | 0.0 | 165.109 | 1.754 | 11.04 |
| 1.93 | 152.547 | 2.988 | 0.19 | 0.9 | 0.0 | 51.053 | 1.959 | 0.0 | 151.547 | 1.964 | 12.63 |
| 1.94 | 146.021 | 3.202 | 0.19 | 0.9 | 0.0 | 45.603 | 2.193 | 0.0 | 145.021 | 2.199 | 14 |
| 1.95 | 139.597 | 3.232 | 0.19 | 0.9 | 0.0 | 43.192 | 2.315 | 0.0 | 138.597 | 2.322 | 14.88 |
| 1.96 | 132.255 | 3.61 | 0.19 | 0.9 | 0.0 | 36.636 | 2.73 | 0.0 | 131.255 | 2.738 | 17.01 |
| 1.97 | 127.259 | 3.712 | 0.19 | 0.9 | 0.0 | 34.283 | 2.917 | 0.0 | 126.259 | 2.926 | 18.07 |
| 1.98 | 122.058 | 3.722 | 0.19 | 0.9 | 0.0 | 32.794 | 3.049 | 0.0 | 121.058 | 3.06 | 18.94 |
| 1.99 | 115.328 | 3.865 | 0.19 | 0.8 | 0.0 | 29.839 | 3.351 | 0.0 | 114.328 | 3.363 | 20.57 |
| 2.00 | 112.269 | 3.905 | 0.19 | 0.9 | 0.0 | 28.75 | 3.478 | 0.0 | 111.269 | 3.491 | 21.28 |
| 2.01 | 109.108 | 3.905 | 0.19 | 0.8 | 0.0 | 27.941 | 3.579 | 0.0 | 108.108 | 3.593 | 21.92 |
| 2.02 | 106.559 | 3.885 | 0.19 | 0.9 | 0.0 | 27.428 | 3.646 | 0.0 | 105.559 | 3.66 | 22.39 |
| 2.03 | 104.519 | 3.875 | 0.19 | 0.9 | 0.0 | 26.973 | 3.707 | 0.0 | 103.519 | 3.723 | 22.8 |
| 2.04 | 103.703 | 3.865 | 0.19 | 0.8 | 0.0 | 26.831 | 3.727 | 0.0 | 102.703 | 3.742 | 22.94 |
| 2.05 | 103.296 | 3.916 | 0.19 | 0.9 | 0.0 | 26.378 | 3.791 | 0.0 | 102.296 | 3.807 | 23.2 |
| 2.06 | 103.602 | 3.956 | 0.19 | 0.9 | 0.0 | 26.189 | 3.818 | 0.0 | 102.602 | 3.834 | 23.26 |
| 2.07 | 105.131 | 3.916 | 0.19 | 0.8 | 0.0 | 26.847 | 3.725 | 0.0 | 104.131 | 3.74 | 22.8 |
| 2.08 | 105.845 | 3.834 | 0.19 | 0.8 | 0.0 | 27.607 | 3.622 | 0.0 | 104.845 | 3.637 | 22.38 |
| 2.09 | 106.049 | 3.722 | 0.19 | 0.8 | 0.0 | 28.492 | 3.51 | 0.0 | 105.049 | 3.524 | 21.97 |
| 2.10 | 105.641 | 3.538 | 0.19 | 0.8 | 0.0 | 29.859 | 3.349 | 0.0 | 104.641 | 3.363 | 21.44 |
| 2.11 | 105.335 | 3.487 | 0.19 | 0.8 | 0.0 | 30.208 | 3.31 | 0.0 | 104.335 | 3.324 | 21.33 |

Prova n. 2

| | | | | | | | | | | | |
|------|---------|-------|------|-----|-----|--------|-------|-----|---------|-------|-------|
| 2.12 | 105.539 | 3.426 | 0.19 | 0.8 | 0.0 | 30.805 | 3.246 | 0.0 | 104.539 | 3.26 | 21.08 |
| 2.13 | 106.457 | 3.365 | 0.19 | 0.8 | 0.0 | 31.637 | 3.161 | 0.0 | 105.457 | 3.174 | 20.68 |
| 2.14 | 107.272 | 3.314 | 0.19 | 0.8 | 0.0 | 32.369 | 3.089 | 0.0 | 106.272 | 3.102 | 20.33 |
| 2.15 | 107.578 | 3.314 | 0.20 | 0.8 | 0.0 | 32.462 | 3.081 | 0.0 | 106.578 | 3.094 | 20.27 |
| 2.16 | 108.802 | 3.314 | 0.20 | 0.8 | 0.0 | 32.831 | 3.046 | 0.0 | 107.802 | 3.059 | 20.03 |
| 2.17 | 109.822 | 3.345 | 0.20 | 0.8 | 0.0 | 32.832 | 3.046 | 0.0 | 108.822 | 3.059 | 19.94 |
| 2.18 | 110.943 | 3.334 | 0.20 | 0.8 | 0.0 | 33.276 | 3.005 | 0.0 | 109.943 | 3.018 | 19.69 |
| 2.19 | 112.167 | 3.355 | 0.20 | 0.8 | 0.0 | 33.433 | 2.991 | 0.0 | 111.167 | 3.003 | 19.53 |
| 2.20 | 112.881 | 3.385 | 0.20 | 0.8 | 0.0 | 33.347 | 2.999 | 0.0 | 111.881 | 3.011 | 19.5 |
| 2.21 | 113.799 | 3.426 | 0.20 | 0.8 | 0.0 | 33.216 | 3.011 | 0.0 | 112.799 | 3.023 | 19.46 |
| 2.22 | 114.716 | 3.426 | 0.20 | 0.8 | 0.0 | 33.484 | 2.987 | 0.0 | 113.716 | 2.999 | 19.3 |
| 2.23 | 115.226 | 3.406 | 0.20 | 0.8 | 0.0 | 33.83 | 2.956 | 0.0 | 114.226 | 2.968 | 19.14 |
| 2.24 | 117.265 | 3.283 | 0.20 | 0.8 | 0.0 | 35.719 | 2.8 | 0.0 | 116.265 | 2.811 | 18.37 |
| 2.25 | 118.285 | 3.253 | 0.20 | 0.8 | 0.0 | 36.362 | 2.75 | 0.0 | 117.285 | 2.761 | 18.1 |
| 2.26 | 119.203 | 3.181 | 0.20 | 0.8 | 0.0 | 37.473 | 2.669 | 0.0 | 118.203 | 2.679 | 17.7 |
| 2.27 | 120.325 | 3.1 | 0.21 | 0.8 | 0.0 | 38.815 | 2.576 | 0.0 | 119.325 | 2.587 | 17.25 |
| 2.28 | 121.14 | 2.937 | 0.21 | 0.8 | 0.0 | 41.246 | 2.424 | 0.0 | 120.14 | 2.434 | 16.56 |
| 2.29 | 121.446 | 2.845 | 0.21 | 0.8 | 0.0 | 42.688 | 2.343 | 0.0 | 120.446 | 2.352 | 16.19 |
| 2.30 | 121.548 | 2.753 | 0.21 | 0.8 | 0.0 | 44.151 | 2.265 | 0.0 | 120.548 | 2.274 | 15.85 |
| 2.31 | 121.548 | 2.672 | 0.21 | 0.8 | 0.0 | 45.49 | 2.198 | 0.0 | 120.548 | 2.207 | 15.55 |
| 2.32 | 122.16 | 2.61 | 0.21 | 0.8 | 0.0 | 46.805 | 2.137 | 0.0 | 121.16 | 2.145 | 15.24 |
| 2.33 | 121.14 | 2.57 | 0.21 | 0.8 | 0.0 | 47.136 | 2.122 | 0.0 | 120.14 | 2.13 | 15.24 |
| 2.34 | 119.509 | 2.498 | 0.21 | 0.8 | 0.0 | 47.842 | 2.09 | 0.0 | 118.509 | 2.099 | 15.22 |
| 2.35 | 117.979 | 2.539 | 0.21 | 0.8 | 0.0 | 46.467 | 2.152 | 0.0 | 116.979 | 2.161 | 15.61 |
| 2.36 | 116.654 | 2.59 | 0.21 | 0.8 | 0.0 | 45.04 | 2.22 | 0.0 | 115.654 | 2.23 | 16.02 |
| 2.37 | 115.736 | 2.621 | 0.21 | 0.8 | 0.0 | 44.157 | 2.265 | 0.0 | 114.736 | 2.275 | 16.28 |
| 2.38 | 114.308 | 2.682 | 0.21 | 0.8 | 0.0 | 42.62 | 2.346 | 0.0 | 113.308 | 2.357 | 16.75 |
| 2.39 | 112.881 | 2.723 | 0.21 | 0.8 | 0.0 | 41.455 | 2.412 | 0.0 | 111.881 | 2.423 | 17.15 |
| 2.40 | 111.453 | 2.794 | 0.21 | 0.8 | 0.0 | 39.89 | 2.507 | 0.0 | 110.453 | 2.518 | 17.67 |
| 2.41 | 107.374 | 2.927 | 0.21 | 0.8 | 0.0 | 36.684 | 2.726 | 0.0 | 106.374 | 2.739 | 18.92 |
| 2.42 | 104.315 | 3.008 | 0.21 | 0.8 | 0.0 | 34.679 | 2.884 | 0.0 | 103.315 | 2.898 | 19.83 |
| 2.43 | 101.868 | 3.1 | 0.21 | 0.8 | 0.0 | 32.861 | 3.043 | 0.0 | 100.868 | 3.059 | 20.68 |
| 2.44 | 99.625 | 3.243 | 0.21 | 0.8 | 0.0 | 30.72 | 3.255 | 0.0 | 98.625 | 3.272 | 21.71 |
| 2.45 | 96.77 | 3.355 | 0.21 | 0.8 | 0.0 | 28.844 | 3.467 | 0.0 | 95.77 | 3.486 | 22.78 |
| 2.46 | 94.832 | 3.487 | 0.21 | 0.8 | 0.0 | 27.196 | 3.677 | 0.0 | 93.832 | 3.697 | 23.74 |
| 2.47 | 93.099 | 3.559 | 0.22 | 0.8 | 0.0 | 26.159 | 3.823 | 0.0 | 92.099 | 3.844 | 24.44 |
| 2.48 | 89.938 | 3.803 | 0.22 | 0.8 | 0.0 | 23.649 | 4.228 | 0.0 | 88.938 | 4.253 | 26.16 |
| 2.49 | 87.082 | 3.956 | 0.22 | 0.8 | 0.0 | 22.013 | 4.543 | 0.0 | 86.082 | 4.571 | 27.53 |
| 2.50 | 85.655 | 4.007 | 0.22 | 0.8 | 0.0 | 21.376 | 4.678 | 0.0 | 84.655 | 4.707 | 28.14 |
| 2.51 | 83.819 | 4.099 | 0.22 | 0.8 | 0.0 | 20.449 | 4.89 | 0.0 | 82.819 | 4.922 | 29.04 |
| 2.52 | 81.78 | 4.252 | 0.22 | 0.8 | 0.0 | 19.233 | 5.199 | 0.0 | 80.78 | 5.234 | 30.25 |
| 2.53 | 79.741 | 4.527 | 0.22 | 0.8 | 0.0 | 17.615 | 5.677 | 0.0 | 78.741 | 5.716 | 31.9 |
| 2.54 | 77.905 | 4.65 | 0.22 | 0.8 | 0.0 | 16.754 | 5.969 | 0.0 | 76.905 | 6.01 | 32.99 |
| 2.55 | 76.579 | 4.823 | 0.22 | 0.8 | 0.0 | 15.878 | 6.298 | 0.0 | 75.579 | 6.343 | 34.08 |
| 2.56 | 74.03 | 5.078 | 0.22 | 0.8 | 0.0 | 14.579 | 6.859 | 0.0 | 73.03 | 6.91 | 35.94 |
| 2.57 | 73.011 | 5.241 | 0.22 | 0.8 | 0.0 | 13.931 | 7.178 | 0.0 | 72.011 | 7.233 | 36.91 |
| 2.58 | 72.807 | 5.313 | 0.22 | 0.8 | 0.0 | 13.704 | 7.297 | 0.0 | 71.807 | 7.353 | 37.23 |
| 2.59 | 72.603 | 5.466 | 0.22 | 0.8 | 0.0 | 13.283 | 7.529 | 0.0 | 71.603 | 7.586 | 37.81 |
| 2.60 | 73.112 | 5.506 | 0.22 | 0.8 | 0.0 | 13.279 | 7.531 | 0.0 | 72.112 | 7.588 | 37.72 |
| 2.61 | 71.889 | 5.629 | 0.22 | 0.8 | 0.0 | 12.771 | 7.83 | 0.0 | 70.889 | 7.891 | 38.65 |
| 2.62 | 70.971 | 5.721 | 0.22 | 0.7 | 0.0 | 12.405 | 8.061 | 0.0 | 69.971 | 8.125 | 39.35 |
| 2.63 | 68.32 | 5.741 | 0.22 | 0.7 | 0.0 | 11.9 | 8.403 | 0.0 | 67.32 | 8.473 | 40.65 |
| 2.64 | 66.994 | 5.873 | 0.22 | 0.7 | 0.0 | 11.407 | 8.766 | 0.0 | 65.994 | 8.841 | 41.72 |
| 2.65 | 65.873 | 5.914 | 0.22 | 0.7 | 0.0 | 11.138 | 8.978 | 0.0 | 64.873 | 9.055 | 42.42 |
| 2.66 | 67.3 | 5.914 | 0.22 | 0.7 | 0.0 | 11.38 | 8.788 | 0.0 | 66.3 | 8.862 | 41.7 |
| 2.67 | 64.445 | 5.822 | 0.22 | 0.7 | 0.0 | 11.069 | 9.034 | 0.0 | 63.445 | 9.114 | 42.86 |
| 2.68 | 62.1 | 5.935 | 0.22 | 0.7 | 0.0 | 10.463 | 9.557 | 0.0 | 61.1 | 9.646 | 44.51 |
| 2.69 | 61.794 | 5.822 | 0.22 | 0.7 | 0.0 | 10.614 | 9.422 | 0.0 | 60.794 | 9.51 | 44.31 |
| 2.70 | 61.386 | 5.649 | 0.22 | 0.7 | 0.0 | 10.867 | 9.202 | 0.0 | 60.386 | 9.289 | 43.95 |
| 2.71 | 59.143 | 5.68 | 0.22 | 0.7 | 0.0 | 10.413 | 9.604 | 0.0 | 58.143 | 9.698 | 45.36 |
| 2.72 | 59.245 | 5.537 | 0.22 | 0.7 | 0.0 | 10.7 | 9.346 | 0.0 | 58.245 | 9.438 | 44.8 |
| 2.73 | 59.856 | 5.486 | 0.22 | 0.7 | 0.0 | 10.911 | 9.165 | 0.0 | 58.856 | 9.255 | 44.26 |
| 2.74 | 62.508 | 5.415 | 0.22 | 0.7 | 0.0 | 11.543 | 8.663 | 0.0 | 61.508 | 8.745 | 42.53 |
| 2.75 | 60.57 | 5.282 | 0.22 | 0.7 | 0.0 | 11.467 | 8.72 | 0.0 | 59.57 | 8.806 | 43.13 |
| 2.76 | 57.613 | 5.251 | 0.22 | 0.7 | 0.0 | 10.972 | 9.114 | 0.0 | 56.613 | 9.208 | 44.75 |
| 2.77 | 55.574 | 5.098 | 0.22 | 0.7 | 0.0 | 10.901 | 9.173 | 0.0 | 54.574 | 9.272 | 45.45 |

Prova n. 2

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|--------|-----|--------|--------|-------|
| 2.78 | 52.718 | 4.976 | 0.22 | 0.7 | 0.0 | 10.594 | 9.439 | 0.0 | 51.718 | 9.546 | 46.86 |
| 2.79 | 50.781 | 4.915 | 0.21 | 0.7 | 0.0 | 10.332 | 9.679 | 0.0 | 49.781 | 9.793 | 47.98 |
| 2.80 | 48.844 | 4.864 | 0.21 | 0.7 | 0.0 | 10.042 | 9.958 | 0.0 | 47.844 | 10.081 | 49.21 |
| 2.81 | 47.212 | 4.813 | 0.21 | 0.7 | 0.0 | 9.809 | 10.194 | 0.0 | 46.212 | 10.325 | 50.28 |
| 2.82 | 46.396 | 4.701 | 0.21 | 0.6 | 0.0 | 9.869 | 10.132 | 0.0 | 45.396 | 10.265 | 50.45 |
| 2.83 | 45.988 | 4.609 | 0.21 | 0.6 | 0.0 | 9.978 | 10.022 | 0.0 | 44.988 | 10.155 | 50.38 |
| 2.84 | 46.906 | 4.487 | 0.21 | 0.6 | 0.0 | 10.454 | 9.566 | 0.0 | 45.906 | 9.691 | 49.09 |
| 2.85 | 49.659 | 4.303 | 0.21 | 0.6 | 0.0 | 11.541 | 8.665 | 0.0 | 48.659 | 8.772 | 46.17 |
| 2.86 | 48.742 | 4.201 | 0.21 | 0.6 | 0.0 | 11.602 | 8.619 | 0.0 | 47.742 | 8.728 | 46.38 |
| 2.87 | 48.64 | 4.171 | 0.21 | 0.6 | 0.0 | 11.661 | 8.575 | 0.0 | 47.64 | 8.684 | 46.32 |
| 2.88 | 47.722 | 4.048 | 0.21 | 0.6 | 0.0 | 11.789 | 8.482 | 0.0 | 46.722 | 8.593 | 46.43 |
| 2.89 | 48.64 | 3.967 | 0.21 | 0.6 | 0.0 | 12.261 | 8.156 | 0.0 | 47.64 | 8.26 | 45.36 |
| 2.90 | 48.64 | 3.967 | 0.21 | 0.6 | 0.0 | 12.261 | 8.156 | 0.0 | 47.64 | 8.261 | 45.36 |
| 2.91 | 48.64 | 3.967 | 0.21 | 0.6 | 0.0 | 12.261 | 8.156 | 0.0 | 47.64 | 8.261 | 45.36 |
| 2.92 | 45.479 | 3.416 | 0.18 | 0.6 | 0.0 | 13.314 | 7.511 | 0.0 | 44.479 | 7.615 | 44.93 |
| 2.93 | 44.255 | 3.324 | 0.18 | 0.6 | 0.0 | 13.314 | 7.511 | 0.0 | 43.255 | 7.618 | 45.39 |
| 2.94 | 44.153 | 3.324 | 0.18 | 0.6 | 0.0 | 13.283 | 7.528 | 0.0 | 43.153 | 7.637 | 45.47 |
| 2.95 | 45.071 | 3.232 | 0.18 | 0.6 | 0.0 | 13.945 | 7.171 | 0.0 | 44.071 | 7.272 | 44.22 |
| 2.96 | 45.581 | 3.171 | 0.18 | 0.6 | 0.0 | 14.374 | 6.957 | 0.0 | 44.581 | 7.054 | 43.49 |
| 2.97 | 42.929 | 3.018 | 0.18 | 0.6 | 0.0 | 14.224 | 7.03 | 0.0 | 41.929 | 7.135 | 44.68 |
| 2.98 | 41.298 | 3.059 | 0.18 | 0.6 | 0.0 | 13.5 | 7.407 | 0.0 | 40.298 | 7.523 | 46.32 |
| 2.99 | 37.933 | 3.1 | 0.18 | 0.6 | 0.0 | 12.236 | 8.172 | 0.0 | 36.933 | 8.312 | 49.73 |
| 3.00 | 36.709 | 3.11 | 0.18 | 0.6 | 0.0 | 11.804 | 8.472 | 0.0 | 35.709 | 8.622 | 51.06 |
| 3.01 | 36.607 | 3.069 | 0.18 | 0.6 | 0.0 | 11.928 | 8.384 | 0.0 | 35.607 | 8.533 | 50.9 |
| 3.02 | 36.199 | 3.039 | 0.18 | 0.6 | 0.0 | 11.911 | 8.395 | 0.0 | 35.199 | 8.547 | 51.14 |
| 3.03 | 35.791 | 3.008 | 0.18 | 0.6 | 0.0 | 11.899 | 8.404 | 0.0 | 34.791 | 8.559 | 51.37 |
| 3.04 | 35.486 | 2.916 | 0.18 | 0.6 | 0.0 | 12.169 | 8.217 | 0.0 | 34.486 | 8.37 | 51.09 |
| 3.05 | 38.035 | 2.865 | 0.18 | 0.6 | 0.0 | 13.276 | 7.533 | 0.0 | 37.035 | 7.663 | 48.11 |
| 3.06 | 38.137 | 2.835 | 0.18 | 0.6 | 0.0 | 13.452 | 7.434 | 0.0 | 37.137 | 7.563 | 47.81 |
| 3.07 | 37.831 | 2.855 | 0.18 | 0.6 | 0.0 | 13.251 | 7.547 | 0.0 | 36.831 | 7.679 | 48.25 |
| 3.08 | 36.811 | 2.743 | 0.18 | 0.6 | 0.0 | 13.42 | 7.452 | 0.0 | 35.811 | 7.587 | 48.5 |
| 3.09 | 35.486 | 2.661 | 0.18 | 0.6 | 0.0 | 13.336 | 7.499 | 0.0 | 34.486 | 7.64 | 49.3 |
| 3.10 | 34.67 | 2.855 | 0.18 | 0.6 | 0.0 | 12.144 | 8.235 | 0.0 | 33.67 | 8.394 | 51.58 |
| 3.11 | 35.588 | 2.865 | 0.18 | 0.6 | 0.0 | 12.422 | 8.05 | 0.0 | 34.588 | 8.203 | 50.64 |
| 3.12 | 34.67 | 2.865 | 0.18 | 0.6 | 0.0 | 12.101 | 8.264 | 0.0 | 33.67 | 8.425 | 51.65 |
| 3.13 | 36.505 | 2.661 | 0.18 | 0.6 | 0.0 | 13.719 | 7.289 | 0.0 | 35.505 | 7.425 | 48.24 |
| 3.14 | 39.564 | 2.631 | 0.18 | 0.6 | 0.0 | 15.038 | 6.65 | 0.0 | 38.564 | 6.764 | 45.09 |
| 3.15 | 39.564 | 2.6 | 0.18 | 0.6 | 0.0 | 15.217 | 6.572 | 0.0 | 38.564 | 6.685 | 44.88 |
| 3.16 | 34.874 | 2.559 | 0.18 | 0.6 | 0.0 | 13.628 | 7.338 | 0.0 | 33.874 | 7.482 | 49.22 |
| 3.17 | 36.709 | 2.672 | 0.18 | 0.6 | 0.0 | 13.738 | 7.279 | 0.0 | 35.709 | 7.415 | 48.12 |
| 3.18 | 38.239 | 2.712 | 0.18 | 0.6 | 0.0 | 14.1 | 7.092 | 0.0 | 37.239 | 7.22 | 46.89 |
| 3.19 | 40.686 | 2.661 | 0.18 | 0.6 | 0.0 | 15.29 | 6.54 | 0.0 | 39.686 | 6.651 | 44.31 |
| 3.20 | 39.462 | 2.753 | 0.18 | 0.6 | 0.0 | 14.334 | 6.976 | 0.0 | 38.462 | 7.099 | 46.02 |
| 3.21 | 38.545 | 2.672 | 0.18 | 0.6 | 0.0 | 14.426 | 6.932 | 0.0 | 37.545 | 7.057 | 46.32 |
| 3.22 | 38.647 | 2.661 | 0.18 | 0.6 | 0.0 | 14.523 | 6.885 | 0.0 | 37.647 | 7.009 | 46.15 |
| 3.23 | 40.074 | 2.498 | 0.18 | 0.6 | 0.0 | 16.042 | 6.233 | 0.0 | 39.074 | 6.342 | 43.71 |
| 3.24 | 37.831 | 2.447 | 0.18 | 0.6 | 0.0 | 15.46 | 6.468 | 0.0 | 36.831 | 6.588 | 45.39 |
| 3.25 | 36.097 | 2.529 | 0.18 | 0.6 | 0.0 | 14.273 | 7.006 | 0.0 | 35.097 | 7.143 | 47.71 |
| 3.26 | 36.403 | 2.559 | 0.18 | 0.6 | 0.0 | 14.225 | 7.03 | 0.0 | 35.403 | 7.166 | 47.62 |
| 3.27 | 37.219 | 2.58 | 0.18 | 0.6 | 0.0 | 14.426 | 6.932 | 0.0 | 36.219 | 7.064 | 46.96 |
| 3.28 | 35.384 | 2.539 | 0.18 | 0.6 | 0.0 | 13.936 | 7.176 | 0.0 | 34.384 | 7.32 | 48.53 |
| 3.29 | 34.262 | 2.59 | 0.18 | 0.6 | 0.0 | 13.229 | 7.559 | 0.0 | 33.262 | 7.717 | 50.14 |
| 3.30 | 34.16 | 2.529 | 0.18 | 0.6 | 0.0 | 13.507 | 7.403 | 0.0 | 33.16 | 7.558 | 49.79 |
| 3.31 | 32.528 | 2.468 | 0.18 | 0.6 | 0.0 | 13.18 | 7.587 | 0.0 | 31.528 | 7.755 | 51.21 |
| 3.32 | 33.65 | 2.478 | 0.18 | 0.6 | 0.0 | 13.579 | 7.364 | 0.0 | 32.65 | 7.522 | 49.98 |
| 3.33 | 31.407 | 2.457 | 0.18 | 0.6 | 0.0 | 12.783 | 7.823 | 0.0 | 30.407 | 8.003 | 52.5 |
| 3.34 | 30.999 | 2.457 | 0.18 | 0.6 | 0.0 | 12.617 | 7.926 | 0.0 | 29.999 | 8.112 | 53.02 |
| 3.35 | 30.285 | 2.447 | 0.18 | 0.6 | 0.0 | 12.376 | 8.08 | 0.0 | 29.285 | 8.274 | 53.87 |
| 3.36 | 28.144 | 2.366 | 0.18 | 0.6 | 0.0 | 11.895 | 8.407 | 0.0 | 27.144 | 8.625 | 56.19 |
| 3.37 | 26.002 | 2.437 | 0.18 | 0.6 | 0.0 | 10.67 | 9.372 | 0.0 | 25.002 | 9.637 | 60.19 |
| 3.38 | 24.983 | 2.376 | 0.18 | 0.6 | 0.0 | 10.515 | 9.51 | 0.0 | 23.983 | 9.792 | 61.39 |
| 3.39 | 24.473 | 2.264 | 0.18 | 0.6 | 0.0 | 10.81 | 9.251 | 0.0 | 23.473 | 9.531 | 61.25 |
| 3.40 | 23.147 | 2.162 | 0.18 | 0.6 | 0.0 | 10.706 | 9.34 | 0.0 | 22.147 | 9.641 | 62.72 |
| 3.41 | 23.861 | 2.07 | 0.18 | 0.6 | 0.0 | 11.527 | 8.675 | 0.0 | 22.861 | 8.946 | 60.43 |
| 3.42 | 23.147 | 1.846 | 0.18 | 0.6 | 0.0 | 12.539 | 7.975 | 0.0 | 22.147 | 8.233 | 59.33 |
| 3.43 | 23.657 | 1.784 | 0.18 | 0.6 | 0.0 | 13.261 | 7.541 | 0.0 | 22.657 | 7.78 | 57.69 |

Prova n. 2

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|--------|--------|-----|--------|--------|-------|
| 3.44 | 23.759 | 1.744 | 0.18 | 0.6 | 0.0 | 13.623 | 7.34 | 0.0 | 22.759 | 7.573 | 57.04 |
| 3.45 | 25.9 | 1.672 | 0.18 | 0.6 | 0.0 | 15.49 | 6.456 | 0.0 | 24.9 | 6.643 | 52.66 |
| 3.46 | 26.41 | 1.601 | 0.18 | 0.6 | 0.0 | 16.496 | 6.062 | 0.0 | 25.41 | 6.235 | 51.07 |
| 3.47 | 26.716 | 1.479 | 0.18 | 0.6 | 0.0 | 18.064 | 5.536 | 0.0 | 25.716 | 5.693 | 49.17 |
| 3.48 | 19.272 | 1.162 | 0.18 | 0.6 | 0.0 | 16.585 | 6.029 | 0.0 | 18.272 | 6.269 | 57.87 |
| 3.49 | 25.594 | 1.356 | 0.18 | 0.6 | 0.0 | 18.875 | 5.298 | 0.0 | 24.594 | 5.456 | 49.25 |
| 3.50 | 24.677 | 1.326 | 0.18 | 0.6 | 0.0 | 18.61 | 5.373 | 0.0 | 23.677 | 5.54 | 50.26 |
| 3.51 | 26.818 | 1.285 | 0.18 | 0.6 | 0.0 | 20.87 | 4.792 | 0.0 | 25.818 | 4.928 | 46.55 |
| 3.52 | 25.085 | 1.346 | 0.18 | 0.6 | 0.0 | 18.637 | 5.366 | 0.0 | 24.085 | 5.53 | 49.89 |
| 3.53 | 20.19 | 1.366 | 0.17 | 0.6 | 0.0 | 14.78 | 6.766 | 0.0 | 19.19 | 7.026 | 59.09 |
| 3.54 | 16.927 | 1.509 | 0.17 | 0.6 | 0.0 | 11.217 | 8.915 | 0.0 | 15.927 | 9.327 | 69.36 |
| 3.55 | 16.723 | 1.53 | 0.17 | 0.6 | 0.0 | 10.93 | 9.149 | 0.0 | 15.723 | 9.579 | 70.27 |
| 3.56 | 16.621 | 1.519 | 0.17 | 0.6 | 0.0 | 10.942 | 9.139 | 0.0 | 15.621 | 9.573 | 70.41 |
| 3.57 | 16.927 | 1.468 | 0.17 | 0.6 | 0.0 | 11.531 | 8.673 | 0.0 | 15.927 | 9.077 | 68.74 |
| 3.58 | 19.986 | 1.428 | 0.17 | 0.6 | 0.0 | 13.996 | 7.145 | 0.0 | 18.986 | 7.426 | 60.45 |
| 3.59 | 19.374 | 1.407 | 0.17 | 0.6 | 0.0 | 13.77 | 7.262 | 0.0 | 18.374 | 7.558 | 61.53 |
| 3.60 | 18.559 | 1.366 | 0.17 | 0.6 | 0.0 | 13.586 | 7.36 | 0.0 | 17.559 | 7.675 | 62.86 |
| 3.61 | 16.417 | 1.336 | 0.17 | 0.6 | 0.0 | 12.288 | 8.138 | 0.0 | 15.417 | 8.534 | 68.13 |
| 3.62 | 15.295 | 1.377 | 0.17 | 0.5 | 0.0 | 11.107 | 9.003 | 0.0 | 14.295 | 9.477 | 72.31 |
| 3.63 | 11.421 | 1.305 | 0.16 | 0.5 | 0.0 | 8.752 | 11.426 | 0.0 | 10.421 | 12.248 | 86.83 |
| 3.64 | 10.299 | 1.336 | 0.16 | 0.5 | 0.0 | 7.709 | 12.972 | 0.0 | 9.299 | 14.018 | 93.66 |
| 3.65 | 10.299 | 1.264 | 0.16 | 0.5 | 0.0 | 8.148 | 12.273 | 0.0 | 9.299 | 13.265 | 92.15 |
| 3.66 | 9.381 | 1.193 | 0.16 | 0.5 | 0.0 | 7.863 | 12.717 | 0.0 | 8.381 | 13.857 | 96.4 |
| 3.67 | 8.565 | 1.111 | 0.16 | 0.5 | 0.0 | 7.709 | 12.971 | 0.0 | 7.565 | 14.26 | 100.3 |
| 3.68 | 8.26 | 0.989 | 0.16 | 0.5 | 0.0 | 8.352 | 11.973 | 0.0 | 7.26 | 13.214 | 99.44 |
| 3.69 | 8.158 | 0.887 | 0.16 | 0.5 | 0.0 | 9.197 | 10.873 | 0.0 | 7.158 | 12.018 | 97.28 |
| 3.70 | 7.954 | 0.826 | 0.16 | 0.5 | 0.0 | 9.63 | 10.385 | 0.0 | 6.954 | 11.512 | 97.01 |
| 3.71 | 7.546 | 0.755 | 0.16 | 0.5 | 0.0 | 9.995 | 10.005 | 0.0 | 6.546 | 11.16 | 98.06 |
| 3.72 | 7.342 | 0.693 | 0.16 | 0.5 | 0.0 | 10.595 | 9.439 | 0.0 | 6.342 | 10.565 | 97.6 |
| 3.73 | 7.138 | 0.663 | 0.16 | 0.5 | 0.0 | 10.766 | 9.288 | 0.0 | 6.138 | 10.435 | 98.3 |
| 3.74 | 7.138 | 0.581 | 0.16 | 0.5 | 0.0 | 12.286 | 8.14 | 0.0 | 6.138 | 9.147 | 94.89 |
| 3.75 | 7.138 | 0.53 | 0.16 | 0.5 | 0.0 | 13.468 | 7.425 | 0.0 | 6.138 | 8.347 | 92.59 |
| 3.76 | 7.342 | 0.449 | 0.16 | 0.5 | 0.0 | 16.352 | 6.115 | 0.0 | 6.342 | 6.853 | 86.87 |
| 3.77 | 7.546 | 0.398 | 0.16 | 0.5 | 0.0 | 18.96 | 5.274 | 0.0 | 6.546 | 5.892 | 82.52 |
| 3.78 | 7.852 | 0.316 | 0.16 | 0.5 | 0.0 | 24.848 | 4.024 | 0.0 | 6.852 | 4.477 | 75.44 |
| 3.79 | 8.362 | 0.275 | 0.16 | 0.5 | 0.0 | 30.407 | 3.289 | 0.0 | 7.362 | 3.634 | 69.44 |
| 3.80 | 8.973 | 0.224 | 0.16 | 0.5 | 0.0 | 40.058 | 2.496 | 0.0 | 7.973 | 2.74 | 62.4 |
| 3.81 | 9.381 | 0.204 | 0.16 | 0.5 | 0.0 | 45.985 | 2.175 | 0.0 | 8.381 | 2.377 | 58.86 |
| 3.82 | 9.483 | 0.184 | 0.16 | 0.5 | 0.0 | 51.538 | 1.94 | 0.0 | 8.483 | 2.119 | 56.81 |
| 3.83 | 9.993 | 0.173 | 0.16 | 0.5 | 0.0 | 57.763 | 1.731 | 0.0 | 8.993 | 1.882 | 53.67 |
| 3.84 | 10.401 | 0.173 | 0.16 | 0.5 | 0.0 | 60.121 | 1.663 | 0.0 | 9.401 | 1.803 | 52.02 |
| 3.85 | 10.911 | 0.173 | 0.17 | 0.5 | 0.0 | 63.069 | 1.586 | 0.0 | 9.911 | 1.712 | 50.1 |
| 3.86 | 11.013 | 0.163 | 0.17 | 0.5 | 0.0 | 67.564 | 1.48 | 0.0 | 10.013 | 1.597 | 48.95 |
| 3.87 | 10.809 | 0.153 | 0.17 | 0.5 | 0.0 | 70.647 | 1.415 | 0.0 | 9.809 | 1.53 | 48.86 |
| 3.88 | 10.911 | 0.163 | 0.16 | 0.5 | 0.0 | 66.939 | 1.494 | 0.0 | 9.911 | 1.614 | 49.32 |
| 3.89 | 10.299 | 0.173 | 0.16 | 0.5 | 0.0 | 59.532 | 1.68 | 0.0 | 9.299 | 1.824 | 52.44 |
| 3.90 | 10.299 | 0.173 | 0.16 | 0.5 | 0.0 | 59.532 | 1.68 | 0.0 | 9.299 | 1.824 | 52.44 |
| 3.91 | 10.299 | 0.173 | 0.16 | 0.5 | 0.0 | 59.532 | 1.68 | 0.0 | 9.299 | 1.825 | 52.45 |
| 3.92 | 11.829 | 0.143 | 0.16 | 0.6 | 0.0 | 82.72 | 1.209 | 0.0 | 10.829 | 1.299 | 44.66 |
| 3.93 | 12.236 | 0.153 | 0.19 | 0.6 | 0.0 | 79.974 | 1.25 | 0.0 | 11.236 | 1.34 | 44.24 |
| 3.94 | 13.256 | 0.204 | 0.20 | 0.6 | 0.0 | 64.98 | 1.539 | 0.0 | 12.256 | 1.641 | 44.88 |
| 3.95 | 13.46 | 0.204 | 0.21 | 0.6 | 0.0 | 65.98 | 1.516 | 0.0 | 12.46 | 1.615 | 44.33 |
| 3.96 | 14.582 | 0.245 | 0.17 | 0.6 | 0.0 | 59.518 | 1.68 | 0.0 | 13.582 | 1.781 | 43.8 |
| 3.97 | 14.786 | 0.245 | 0.10 | 0.6 | 0.0 | 60.351 | 1.657 | 0.0 | 13.786 | 1.755 | 43.3 |
| 3.98 | 14.276 | 0.265 | 0.12 | 0.6 | 0.0 | 53.872 | 1.856 | 0.0 | 13.276 | 1.971 | 45.61 |
| 3.99 | 15.092 | 0.316 | 0.05 | 0.6 | 0.0 | 47.759 | 2.094 | 0.0 | 14.092 | 2.216 | 45.98 |
| 4.00 | 16.621 | 0.357 | -0.08 | 0.6 | 0.0 | 46.557 | 2.148 | 0.0 | 15.621 | 2.261 | 44.15 |
| 4.01 | 17.233 | 0.367 | -0.29 | 0.6 | 0.0 | 46.956 | 2.13 | 0.0 | 16.233 | 2.238 | 43.25 |
| 4.02 | 16.315 | 0.387 | -0.40 | 0.6 | 0.0 | 42.158 | 2.372 | 0.0 | 15.315 | 2.501 | 45.98 |
| 4.03 | 16.111 | 0.428 | -0.51 | 0.6 | 0.0 | 37.643 | 2.657 | 0.0 | 15.111 | 2.803 | 47.95 |
| 4.04 | 16.621 | 0.408 | -0.53 | 0.6 | 0.0 | 40.738 | 2.455 | 0.0 | 15.621 | 2.586 | 46.06 |
| 4.05 | 15.907 | 0.377 | -0.55 | 0.5 | 0.0 | 42.194 | 2.37 | 0.0 | 14.907 | 2.503 | 46.55 |
| 4.06 | 16.213 | 0.387 | -0.56 | 0.6 | 0.0 | 41.894 | 2.387 | 0.0 | 15.213 | 2.518 | 46.22 |
| 4.07 | 15.805 | 0.357 | -0.57 | 0.5 | 0.0 | 44.272 | 2.259 | 0.0 | 14.805 | 2.387 | 46.01 |
| 4.08 | 15.397 | 0.326 | -0.57 | 0.5 | 0.0 | 47.23 | 2.117 | 0.0 | 14.397 | 2.241 | 45.69 |
| 4.09 | 15.397 | 0.286 | -0.58 | 0.5 | 0.0 | 53.836 | 1.858 | 0.0 | 14.397 | 1.966 | 43.9 |

Prova n. 2

| | | | | | | | | | | | |
|------|---------|-------|-------|-----|-----|----------|-------|-----|---------|-------|-------|
| 4.10 | 15.295 | 0.255 | -0.58 | 0.5 | 0.0 | 59.98 | 1.667 | 0.0 | 14.295 | 1.766 | 42.64 |
| 4.11 | 15.092 | 0.224 | -0.58 | 0.5 | 0.0 | 67.375 | 1.484 | 0.0 | 14.092 | 1.573 | 41.49 |
| 4.12 | 14.786 | 0.194 | -0.58 | 0.5 | 0.0 | 76.216 | 1.312 | 0.0 | 13.786 | 1.393 | 40.47 |
| 4.13 | 14.072 | 0.133 | -0.57 | 0.5 | 0.0 | 105.805 | 0.945 | 0.0 | 13.072 | 1.007 | 37.97 |
| 4.14 | 13.766 | 0.112 | -0.57 | 0.5 | 0.0 | 122.911 | 0.814 | 0.0 | 12.766 | 0.868 | 36.97 |
| 4.15 | 13.256 | 0.102 | -0.57 | 0.5 | 0.0 | 129.961 | 0.769 | 0.0 | 12.256 | 0.823 | 37.27 |
| 4.16 | 12.848 | 0.082 | -0.57 | 0.5 | 0.0 | 156.683 | 0.638 | 0.0 | 11.848 | 0.684 | 36.26 |
| 4.17 | 12.236 | 0.051 | -0.56 | 0.5 | 0.0 | 239.922 | 0.417 | 0.0 | 11.236 | 0.449 | 33.99 |
| 4.18 | 12.032 | 0.051 | -0.56 | 0.5 | 0.0 | 235.922 | 0.424 | 0.0 | 11.032 | 0.457 | 34.48 |
| 4.19 | 11.727 | 0.041 | -0.56 | 0.5 | 0.0 | 286.024 | 0.35 | 0.0 | 10.727 | 0.378 | 33.74 |
| 4.20 | 11.319 | 0.041 | -0.56 | 0.5 | 0.0 | 276.073 | 0.362 | 0.0 | 10.319 | 0.392 | 34.76 |
| 4.21 | 11.013 | 0.031 | -0.56 | 0.5 | 0.0 | 355.258 | 0.281 | 0.0 | 10.013 | 0.306 | 33.83 |
| 4.22 | 11.013 | 0.031 | -0.56 | 0.5 | 0.0 | 355.258 | 0.281 | 0.0 | 10.013 | 0.306 | 33.83 |
| 4.23 | 10.605 | 0.031 | -0.55 | 0.5 | 0.0 | 342.097 | 0.292 | 0.0 | 9.605 | 0.319 | 34.9 |
| 4.24 | 10.401 | 0.02 | -0.54 | 0.5 | 0.0 | 520.05 | 0.192 | 0.0 | 9.401 | 0.21 | 33.21 |
| 4.25 | 10.401 | 0.02 | -0.54 | 0.5 | 0.0 | 520.05 | 0.192 | 0.0 | 9.401 | 0.21 | 33.21 |
| 4.26 | 10.605 | 0.02 | -0.54 | 0.5 | 0.0 | 530.25 | 0.189 | 0.0 | 9.605 | 0.206 | 32.69 |
| 4.27 | 10.605 | 0.01 | -0.53 | 0.5 | 0.0 | 1060.5 | 0.094 | 0.0 | 9.605 | 0.103 | 30.61 |
| 4.28 | 10.605 | 0.01 | -0.53 | 0.5 | 0.0 | 1060.5 | 0.094 | 0.0 | 9.605 | 0.103 | 30.61 |
| 4.29 | 10.605 | 0.01 | -0.53 | 0.5 | 0.0 | 1060.5 | 0.094 | 0.0 | 9.605 | 0.103 | 30.61 |
| 4.30 | 10.605 | 0.01 | -0.53 | 0.5 | 0.0 | 1060.5 | 0.094 | 0.0 | 9.605 | 0.103 | 30.61 |
| 4.31 | 10.605 | 0.01 | -0.53 | 0.5 | 0.0 | 1060.5 | 0.094 | 0.0 | 9.605 | 0.103 | 30.61 |
| 4.32 | 10.707 | 0.01 | -0.52 | 0.5 | 0.0 | 1070.7 | 0.093 | 0.0 | 9.707 | 0.102 | 30.39 |
| 4.33 | 10.707 | 0.01 | -0.52 | 0.5 | 0.0 | 1070.7 | 0.093 | 0.0 | 9.707 | 0.102 | 30.39 |
| 4.34 | 9.891 | 0.01 | -0.52 | 0.5 | 0.0 | 989.1 | 0.101 | 0.0 | 8.891 | 0.111 | 32.27 |
| 4.35 | 9.483 | 0.01 | -0.52 | 0.5 | 0.0 | 948.3 | 0.105 | 0.0 | 8.483 | 0.117 | 33.32 |
| 4.36 | 8.973 | 0.01 | -0.52 | 0.5 | 0.0 | 897.3 | 0.111 | 0.0 | 7.973 | 0.124 | 34.74 |
| 4.37 | 8.769 | 0.01 | -0.52 | 0.5 | 0.0 | 876.9 | 0.114 | 0.0 | 7.769 | 0.127 | 35.35 |
| 4.38 | 8.565 | 0.01 | -0.52 | 0.5 | 0.0 | 856.5 | 0.117 | 0.0 | 7.565 | 0.131 | 35.99 |
| 4.39 | 8.362 | 0.01 | -0.52 | 0.5 | 0.0 | 836.2 | 0.12 | 0.0 | 7.362 | 0.134 | 36.65 |
| 4.40 | 8.26 | 0.01 | -0.51 | 0.5 | 0.0 | 826.0 | 0.121 | 0.0 | 7.26 | 0.136 | 36.99 |
| 4.41 | 8.565 | 0.01 | -0.51 | 0.5 | 0.0 | 856.5 | 0.117 | 0.0 | 7.565 | 0.131 | 35.99 |
| 4.42 | 9.483 | 0.01 | -0.51 | 0.5 | 0.0 | 948.3 | 0.105 | 0.0 | 8.483 | 0.117 | 33.33 |
| 4.43 | 7.648 | 0.01 | -0.50 | 0.5 | 0.0 | 764.8 | 0.131 | 0.0 | 6.648 | 0.149 | 39.2 |
| 4.44 | 8.158 | 0.02 | -0.47 | 0.5 | 0.0 | 407.9 | 0.245 | 0.0 | 7.158 | 0.276 | 40.32 |
| 4.45 | 8.769 | 0.01 | -0.46 | 0.5 | 0.0 | 876.9 | 0.114 | 0.0 | 7.769 | 0.127 | 35.36 |
| 4.46 | 9.483 | 0.01 | -0.46 | 0.5 | 0.0 | 948.3 | 0.105 | 0.0 | 8.483 | 0.117 | 33.33 |
| 4.47 | 9.585 | 0.01 | -0.45 | 0.5 | 0.0 | 958.5 | 0.104 | 0.0 | 8.585 | 0.115 | 33.06 |
| 4.48 | 9.279 | 0.02 | -0.44 | 0.5 | 0.0 | 463.95 | 0.216 | 0.0 | 8.279 | 0.239 | 36.41 |
| 4.49 | 9.483 | 0.02 | -0.44 | 0.5 | 0.0 | 474.15 | 0.211 | 0.0 | 8.483 | 0.234 | 35.79 |
| 4.50 | 9.483 | 0.02 | -0.43 | 0.5 | 0.0 | 474.15 | 0.211 | 0.0 | 8.483 | 0.234 | 35.79 |
| 4.51 | 9.585 | 0.01 | -0.42 | 0.5 | 0.0 | 958.5 | 0.104 | 0.0 | 8.585 | 0.116 | 33.06 |
| 4.52 | 9.483 | 0.02 | -0.42 | 0.5 | 0.0 | 474.15 | 0.211 | 0.0 | 8.483 | 0.234 | 35.79 |
| 4.53 | 8.871 | 0.031 | -0.40 | 0.5 | 0.0 | 286.161 | 0.349 | 0.0 | 7.871 | 0.391 | 40.4 |
| 4.54 | 9.075 | 0.02 | -0.40 | 0.5 | 0.0 | 453.75 | 0.22 | 0.0 | 8.075 | 0.246 | 37.07 |
| 4.55 | 8.769 | 0.02 | -0.40 | 0.5 | 0.0 | 438.45 | 0.228 | 0.0 | 7.769 | 0.255 | 38.1 |
| 4.56 | 8.565 | 0.041 | -0.40 | 0.5 | 0.0 | 208.902 | 0.479 | 0.0 | 7.565 | 0.538 | 43.72 |
| 4.57 | 8.362 | 0.02 | -0.40 | 0.5 | 0.0 | 418.1 | 0.239 | 0.0 | 7.362 | 0.269 | 39.56 |
| 4.58 | 8.056 | 0.01 | -0.39 | 0.5 | 0.0 | 805.6 | 0.124 | 0.0 | 7.056 | 0.141 | 37.71 |
| 4.59 | 7.648 | 0.01 | -0.39 | 0.5 | 0.0 | 764.8 | 0.131 | 0.0 | 6.648 | 0.149 | 39.21 |
| 4.60 | 7.138 | 0.01 | -0.39 | 0.5 | 0.0 | 713.8 | 0.14 | 0.0 | 6.138 | 0.161 | 41.31 |
| 4.61 | 6.934 | 0.01 | -0.39 | 0.5 | 0.0 | 693.4 | 0.144 | 0.0 | 5.934 | 0.167 | 42.22 |
| 4.62 | 7.138 | 0.01 | -0.38 | 0.5 | 0.0 | 713.8 | 0.14 | 0.0 | 6.138 | 0.162 | 41.31 |
| 4.63 | 8.056 | 0.01 | -0.38 | 0.5 | 0.0 | 805.6 | 0.124 | 0.0 | 7.056 | 0.141 | 37.71 |
| 4.64 | 8.464 | 0.01 | -0.38 | 0.5 | 0.0 | 846.4 | 0.118 | 0.0 | 7.464 | 0.133 | 36.33 |
| 4.65 | 9.279 | 0.01 | -0.38 | 0.5 | 0.0 | 927.9 | 0.108 | 0.0 | 8.279 | 0.12 | 33.89 |
| 4.66 | 10.095 | 0.01 | -0.37 | 0.5 | 0.0 | 1009.5 | 0.099 | 0.0 | 9.095 | 0.109 | 31.79 |
| 4.67 | 12.236 | 0.01 | -0.36 | 0.5 | 0.0 | 1223.6 | 0.082 | 0.0 | 11.236 | 0.089 | 27.45 |
| 4.68 | 16.009 | 0.01 | -0.36 | 0.6 | 0.0 | 1600.9 | 0.062 | 0.0 | 15.009 | 0.066 | 22.3 |
| 4.69 | 21.006 | 0.01 | -0.36 | 0.6 | 0.0 | 2100.6 | 0.048 | 0.0 | 20.006 | 0.05 | 18.02 |
| 4.70 | 28.959 | 0.01 | -0.36 | 0.6 | 0.0 | 2895.9 | 0.035 | 0.0 | 27.959 | 0.036 | 13.95 |
| 4.71 | 83.819 | 0.01 | -0.31 | 0.7 | 0.0 | 8381.9 | 0.012 | 0.0 | 82.819 | 0.012 | 6.15 |
| 4.72 | 140.005 | 0.082 | 0.01 | 0.8 | 0.0 | 1707.378 | 0.059 | 0.0 | 139.005 | 0.059 | 0.69 |
| 4.73 | 83.717 | 0.01 | 0.13 | 0.7 | 0.0 | 8371.7 | 0.012 | 0.0 | 82.717 | 0.012 | 6.16 |
| 4.74 | 66.892 | 0.204 | 0.15 | 0.7 | 0.0 | 327.902 | 0.305 | 0.0 | 65.892 | 0.309 | 8.07 |
| 4.75 | 93.71 | 0.275 | 0.13 | 0.7 | 0.0 | 340.764 | 0.293 | 0.0 | 92.71 | 0.297 | 5.29 |

Prova n. 2

| | | | | | | | | | | | |
|------|---------|-------|------|-----|-----|----------|-------|-----|---------|--------|-------|
| 4.76 | 96.362 | 0.061 | 0.16 | 0.6 | 0.0 | 1579.705 | 0.063 | 0.0 | 95.362 | 0.064 | 2.71 |
| 4.77 | 84.737 | 0.235 | 0.15 | 0.6 | 0.0 | 360.583 | 0.277 | 0.0 | 83.737 | 0.281 | 5.84 |
| 4.78 | 72.195 | 0.214 | 0.16 | 0.5 | 0.0 | 337.36 | 0.296 | 0.0 | 71.195 | 0.301 | 7.32 |
| 4.79 | 47.926 | 0.051 | 0.16 | 0.5 | 0.0 | 939.725 | 0.106 | 0.0 | 46.926 | 0.109 | 8.48 |
| 4.80 | 53.024 | 0.479 | 0.16 | 0.5 | 0.0 | 110.697 | 0.903 | 0.0 | 52.024 | 0.92 | 16.3 |
| 4.81 | 55.472 | 0.551 | 0.16 | 0.6 | 0.0 | 100.675 | 0.993 | 0.0 | 54.472 | 1.011 | 16.51 |
| 4.82 | 61.896 | 0.632 | 0.15 | 0.7 | 0.0 | 97.937 | 1.021 | 0.0 | 60.896 | 1.038 | 15.51 |
| 4.83 | 68.626 | 0.602 | 0.16 | 0.7 | 0.0 | 113.997 | 0.877 | 0.0 | 67.626 | 0.89 | 13.33 |
| 4.84 | 68.626 | 0.846 | 0.16 | 0.7 | 0.0 | 81.118 | 1.233 | 0.0 | 67.626 | 1.251 | 15.91 |
| 4.85 | 68.728 | 1.02 | 0.16 | 0.8 | 0.0 | 67.38 | 1.484 | 0.0 | 67.728 | 1.506 | 17.5 |
| 4.86 | 57.307 | 1.152 | 0.16 | 0.9 | 0.0 | 49.746 | 2.01 | 0.0 | 56.307 | 2.046 | 22.6 |
| 4.87 | 43.031 | 1.897 | 0.15 | 0.9 | 0.0 | 22.684 | 4.408 | 0.0 | 42.031 | 4.513 | 36.9 |
| 4.88 | 40.482 | 1.897 | 0.16 | 0.9 | 0.0 | 21.34 | 4.686 | 0.0 | 39.482 | 4.805 | 38.86 |
| 4.89 | 40.482 | 1.897 | 0.16 | 0.9 | 0.0 | 21.34 | 4.686 | 0.0 | 39.482 | 4.805 | 38.86 |
| 4.90 | 40.482 | 1.897 | 0.16 | 0.9 | 0.0 | 21.34 | 4.686 | 0.0 | 39.482 | 4.806 | 38.86 |
| 4.91 | 65.567 | 1.091 | 0.13 | 1.0 | 0.0 | 60.098 | 1.664 | 0.0 | 64.567 | 1.69 | 19.08 |
| 4.92 | 72.909 | 1.122 | 0.14 | 1.0 | 0.0 | 64.981 | 1.539 | 0.0 | 71.909 | 1.561 | 17.19 |
| 4.93 | 81.474 | 1.213 | 0.13 | 1.0 | 0.0 | 67.167 | 1.489 | 0.0 | 80.474 | 1.508 | 15.75 |
| 4.94 | 85.859 | 1.438 | 0.14 | 1.0 | 0.0 | 59.707 | 1.675 | 0.0 | 84.859 | 1.695 | 16.28 |
| 4.95 | 88.408 | 1.254 | 0.16 | 1.0 | 0.0 | 70.501 | 1.418 | 0.0 | 87.408 | 1.435 | 14.55 |
| 4.96 | 104.927 | 1.428 | 0.17 | 1.0 | 0.0 | 73.478 | 1.361 | 0.0 | 103.927 | 1.374 | 12.66 |
| 4.97 | 155.606 | 1.213 | 0.01 | 1.0 | 0.0 | 128.282 | 0.78 | 0.0 | 154.606 | 0.785 | 6.08 |
| 4.98 | 162.336 | 1.213 | 0.00 | 1.2 | 0.0 | 133.83 | 0.747 | 0.0 | 161.336 | 0.752 | 5.6 |
| 4.99 | 135.416 | 0.897 | 0.09 | 1.2 | 0.0 | 150.965 | 0.662 | 0.0 | 134.416 | 0.667 | 6.12 |
| 5.00 | 118.387 | 0.347 | 0.09 | 1.2 | 0.0 | 341.173 | 0.293 | 0.0 | 117.387 | 0.296 | 3.75 |
| 5.01 | 120.631 | 0.184 | 0.09 | 1.2 | 0.0 | 655.603 | 0.153 | 0.0 | 119.631 | 0.154 | 2.16 |
| 5.02 | 127.666 | 0.214 | 0.11 | 1.0 | 0.0 | 596.57 | 0.168 | 0.0 | 126.666 | 0.169 | 2.01 |
| 5.03 | 68.116 | 0.357 | 0.14 | 1.0 | 0.0 | 190.801 | 0.524 | 0.0 | 67.116 | 0.532 | 10.3 |
| 5.04 | 61.284 | 0.061 | 0.12 | 0.8 | 0.0 | 1004.656 | 0.1 | 0.0 | 60.284 | 0.101 | 6.21 |
| 5.05 | 55.574 | 0.02 | 0.17 | 0.9 | 0.0 | 2778.7 | 0.036 | 0.0 | 54.574 | 0.037 | 7.01 |
| 5.06 | 48.436 | 0.286 | 0.16 | 1.0 | 0.0 | 169.357 | 0.59 | 0.0 | 47.436 | 0.603 | 14.46 |
| 5.07 | 41.502 | 0.653 | 0.16 | 1.1 | 0.0 | 63.556 | 1.573 | 0.0 | 40.502 | 1.614 | 24.3 |
| 5.08 | 40.074 | 0.591 | 0.17 | 1.1 | 0.0 | 67.807 | 1.475 | 0.0 | 39.074 | 1.514 | 24.13 |
| 5.09 | 36.709 | 0.622 | 0.20 | 1.1 | 0.0 | 59.018 | 1.694 | 0.0 | 35.709 | 1.744 | 26.85 |
| 5.10 | 32.63 | 0.591 | 0.21 | 1.1 | 0.0 | 55.212 | 1.811 | 0.0 | 31.63 | 1.872 | 29.42 |
| 5.11 | 18.253 | 1.101 | 0.31 | 1.1 | 0.0 | 16.579 | 6.032 | 0.0 | 17.253 | 6.401 | 59.53 |
| 5.12 | 12.236 | 0.867 | 0.54 | 1.1 | 0.0 | 14.113 | 7.086 | 0.0 | 11.236 | 7.755 | 73.77 |
| 5.13 | 8.973 | 0.806 | 0.99 | 1.1 | 0.0 | 11.133 | 8.983 | 0.0 | 7.973 | 10.182 | 89.7 |
| 5.14 | 9.687 | 0.755 | 1.50 | 1.1 | 0.0 | 12.83 | 7.794 | 0.0 | 8.687 | 8.751 | 83.49 |
| 5.15 | 10.299 | 0.744 | 1.67 | 1.1 | 0.0 | 13.843 | 7.224 | 0.0 | 9.299 | 8.054 | 79.65 |
| 5.16 | 10.299 | 0.765 | 1.93 | 1.1 | 0.0 | 13.463 | 7.428 | 0.0 | 9.299 | 8.283 | 80.3 |
| 5.17 | 10.299 | 0.816 | 1.95 | 1.1 | 0.0 | 12.621 | 7.923 | 0.0 | 9.299 | 8.837 | 81.83 |
| 5.18 | 10.299 | 0.826 | 1.94 | 1.1 | 0.0 | 12.469 | 8.02 | 0.0 | 9.299 | 8.947 | 82.13 |
| 5.19 | 10.197 | 0.846 | 1.93 | 1.1 | 0.0 | 12.053 | 8.297 | 0.0 | 9.197 | 9.268 | 83.28 |
| 5.20 | 10.095 | 0.877 | 1.94 | 1.2 | 0.0 | 11.511 | 8.687 | 0.0 | 9.095 | 9.718 | 84.75 |
| 5.21 | 9.993 | 0.602 | 1.96 | 1.3 | 0.0 | 16.6 | 6.024 | 0.0 | 8.993 | 6.748 | 76.56 |
| 5.22 | 10.095 | 0.561 | 1.98 | 1.2 | 0.0 | 17.995 | 5.557 | 0.0 | 9.095 | 6.219 | 74.48 |
| 5.23 | 10.197 | 0.52 | 2.01 | 1.2 | 0.0 | 19.61 | 5.1 | 0.0 | 9.197 | 5.701 | 72.34 |
| 5.24 | 10.605 | 0.54 | 2.18 | 1.2 | 0.0 | 19.639 | 5.092 | 0.0 | 9.605 | 5.668 | 71.08 |
| 5.25 | 12.236 | 0.54 | 2.36 | 1.2 | 0.0 | 22.659 | 4.413 | 0.0 | 11.236 | 4.84 | 63.99 |
| 5.26 | 15.295 | 0.316 | 2.28 | 1.2 | 0.0 | 48.402 | 2.066 | 0.0 | 14.295 | 2.223 | 45.72 |
| 5.27 | 21.72 | 0.173 | 1.96 | 1.2 | 0.0 | 125.549 | 0.797 | 0.0 | 20.72 | 0.838 | 28 |
| 5.28 | 23.147 | 0.163 | 1.71 | 1.2 | 0.0 | 142.006 | 0.704 | 0.0 | 22.147 | 0.739 | 25.9 |
| 5.29 | 22.229 | 0.153 | 1.31 | 1.2 | 0.0 | 145.288 | 0.688 | 0.0 | 21.229 | 0.724 | 26.4 |
| 5.30 | 20.088 | 0.133 | 1.19 | 1.2 | 0.0 | 151.038 | 0.662 | 0.0 | 19.088 | 0.7 | 27.84 |
| 5.31 | 17.641 | 0.153 | 1.11 | 1.1 | 0.0 | 115.301 | 0.867 | 0.0 | 16.641 | 0.924 | 32.61 |
| 5.32 | 16.213 | 0.133 | 1.14 | 1.1 | 0.0 | 121.902 | 0.82 | 0.0 | 15.213 | 0.88 | 33.77 |
| 5.33 | 14.99 | 0.163 | 1.30 | 1.1 | 0.0 | 91.963 | 1.087 | 0.0 | 13.99 | 1.173 | 38.25 |
| 5.34 | 14.276 | 0.173 | 1.46 | 1.2 | 0.0 | 82.52 | 1.212 | 0.0 | 13.276 | 1.313 | 40.54 |
| 5.35 | 12.848 | 0.204 | 1.65 | 1.2 | 0.0 | 62.98 | 1.588 | 0.0 | 11.848 | 1.736 | 46.33 |
| 5.36 | 11.115 | 0.275 | 2.12 | 1.1 | 0.0 | 40.418 | 2.474 | 0.0 | 10.115 | 2.746 | 56.56 |
| 5.37 | 10.197 | 0.286 | 2.88 | 1.0 | 0.0 | 35.654 | 2.805 | 0.0 | 9.197 | 3.145 | 61.11 |
| 5.38 | 10.197 | 0.265 | 3.31 | 1.0 | 0.0 | 38.479 | 2.599 | 0.0 | 9.197 | 2.914 | 59.83 |
| 5.39 | 10.401 | 0.286 | 3.33 | 1.0 | 0.0 | 36.367 | 2.75 | 0.0 | 9.401 | 3.077 | 60.2 |
| 5.40 | 10.911 | 0.286 | 3.32 | 1.0 | 0.0 | 38.15 | 2.621 | 0.0 | 9.911 | 2.917 | 58.03 |
| 5.41 | 11.013 | 0.286 | 3.31 | 1.0 | 0.0 | 38.507 | 2.597 | 0.0 | 10.013 | 2.888 | 57.62 |

Prova n. 2

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|---------|-------|-----|--------|-------|-------|
| 5.42 | 11.115 | 0.275 | 3.30 | 1.0 | 0.0 | 40.418 | 2.474 | 0.0 | 10.115 | 2.749 | 56.58 |
| 5.43 | 11.421 | 0.286 | 3.29 | 1.0 | 0.0 | 39.934 | 2.504 | 0.0 | 10.421 | 2.775 | 56.02 |
| 5.44 | 11.625 | 0.286 | 3.28 | 1.0 | 0.0 | 40.647 | 2.46 | 0.0 | 10.625 | 2.721 | 55.26 |
| 5.45 | 11.829 | 0.286 | 3.28 | 1.0 | 0.0 | 41.36 | 2.418 | 0.0 | 10.829 | 2.67 | 54.52 |
| 5.46 | 11.829 | 0.265 | 3.27 | 1.0 | 0.0 | 44.638 | 2.24 | 0.0 | 10.829 | 2.474 | 53.34 |
| 5.47 | 11.93 | 0.255 | 3.27 | 1.0 | 0.0 | 46.784 | 2.137 | 0.0 | 10.93 | 2.359 | 52.41 |
| 5.48 | 11.93 | 0.235 | 3.26 | 1.0 | 0.0 | 50.766 | 1.97 | 0.0 | 10.93 | 2.175 | 51.21 |
| 5.49 | 11.829 | 0.214 | 3.25 | 1.0 | 0.0 | 55.276 | 1.809 | 0.0 | 10.829 | 1.999 | 50.22 |
| 5.50 | 11.829 | 0.163 | 3.25 | 1.0 | 0.0 | 72.571 | 1.378 | 0.0 | 10.829 | 1.523 | 46.6 |
| 5.51 | 11.829 | 0.153 | 3.24 | 1.0 | 0.0 | 77.314 | 1.293 | 0.0 | 10.829 | 1.43 | 45.82 |
| 5.52 | 11.829 | 0.143 | 3.23 | 1.0 | 0.0 | 82.72 | 1.209 | 0.0 | 10.829 | 1.337 | 45 |
| 5.53 | 11.727 | 0.143 | 3.23 | 1.0 | 0.0 | 82.007 | 1.219 | 0.0 | 10.727 | 1.35 | 45.32 |
| 5.54 | 11.829 | 0.153 | 3.22 | 1.0 | 0.0 | 77.314 | 1.293 | 0.0 | 10.829 | 1.431 | 45.82 |
| 5.55 | 11.829 | 0.163 | 3.22 | 1.0 | 0.0 | 72.571 | 1.378 | 0.0 | 10.829 | 1.524 | 46.61 |
| 5.56 | 11.93 | 0.163 | 3.22 | 1.0 | 0.0 | 73.19 | 1.366 | 0.0 | 10.93 | 1.51 | 46.29 |
| 5.57 | 12.032 | 0.163 | 3.21 | 1.0 | 0.0 | 73.816 | 1.355 | 0.0 | 11.032 | 1.496 | 45.98 |
| 5.58 | 12.032 | 0.163 | 3.21 | 1.0 | 0.0 | 73.816 | 1.355 | 0.0 | 11.032 | 1.497 | 45.98 |
| 5.59 | 12.134 | 0.163 | 3.21 | 1.0 | 0.0 | 74.442 | 1.343 | 0.0 | 11.134 | 1.483 | 45.66 |
| 5.60 | 12.134 | 0.163 | 3.22 | 1.0 | 0.0 | 74.442 | 1.343 | 0.0 | 11.134 | 1.483 | 45.67 |
| 5.61 | 12.032 | 0.153 | 3.22 | 1.0 | 0.0 | 78.641 | 1.272 | 0.0 | 11.032 | 1.406 | 45.2 |
| 5.62 | 12.032 | 0.163 | 3.21 | 0.9 | 0.0 | 73.816 | 1.355 | 0.0 | 11.032 | 1.498 | 45.99 |
| 5.63 | 12.032 | 0.153 | 3.21 | 0.9 | 0.0 | 78.641 | 1.272 | 0.0 | 11.032 | 1.406 | 45.21 |
| 5.64 | 12.134 | 0.143 | 3.21 | 1.0 | 0.0 | 84.853 | 1.179 | 0.0 | 11.134 | 1.302 | 44.09 |
| 5.65 | 12.134 | 0.143 | 3.22 | 1.0 | 0.0 | 84.853 | 1.179 | 0.0 | 11.134 | 1.302 | 44.09 |
| 5.66 | 12.134 | 0.143 | 3.22 | 1.0 | 0.0 | 84.853 | 1.179 | 0.0 | 11.134 | 1.303 | 44.1 |
| 5.67 | 12.134 | 0.143 | 3.22 | 1.0 | 0.0 | 84.853 | 1.179 | 0.0 | 11.134 | 1.303 | 44.1 |
| 5.68 | 12.134 | 0.143 | 3.24 | 1.0 | 0.0 | 84.853 | 1.179 | 0.0 | 11.134 | 1.303 | 44.1 |
| 5.69 | 12.134 | 0.143 | 3.25 | 1.0 | 0.0 | 84.853 | 1.179 | 0.0 | 11.134 | 1.303 | 44.1 |
| 5.70 | 12.236 | 0.143 | 3.25 | 1.0 | 0.0 | 85.566 | 1.169 | 0.0 | 11.236 | 1.292 | 43.8 |
| 5.71 | 12.236 | 0.143 | 3.25 | 1.0 | 0.0 | 85.566 | 1.169 | 0.0 | 11.236 | 1.292 | 43.8 |
| 5.72 | 12.134 | 0.143 | 3.25 | 1.0 | 0.0 | 84.853 | 1.179 | 0.0 | 11.134 | 1.304 | 44.11 |
| 5.73 | 12.134 | 0.143 | 3.25 | 1.0 | 0.0 | 84.853 | 1.179 | 0.0 | 11.134 | 1.304 | 44.11 |
| 5.74 | 12.236 | 0.143 | 3.25 | 1.0 | 0.0 | 85.566 | 1.169 | 0.0 | 11.236 | 1.292 | 43.81 |
| 5.75 | 12.338 | 0.143 | 3.25 | 1.0 | 0.0 | 86.28 | 1.159 | 0.0 | 11.338 | 1.281 | 43.51 |
| 5.76 | 12.338 | 0.143 | 3.26 | 1.0 | 0.0 | 86.28 | 1.159 | 0.0 | 11.338 | 1.281 | 43.51 |
| 5.77 | 12.338 | 0.143 | 3.27 | 1.0 | 0.0 | 86.28 | 1.159 | 0.0 | 11.338 | 1.281 | 43.52 |
| 5.78 | 12.44 | 0.143 | 3.28 | 0.9 | 0.0 | 86.993 | 1.15 | 0.0 | 11.44 | 1.27 | 43.22 |
| 5.79 | 12.542 | 0.143 | 3.29 | 0.9 | 0.0 | 87.706 | 1.14 | 0.0 | 11.542 | 1.259 | 42.93 |
| 5.80 | 12.644 | 0.143 | 3.29 | 0.9 | 0.0 | 88.42 | 1.131 | 0.0 | 11.644 | 1.248 | 42.65 |
| 5.81 | 12.644 | 0.143 | 3.30 | 0.9 | 0.0 | 88.42 | 1.131 | 0.0 | 11.644 | 1.248 | 42.65 |
| 5.82 | 12.644 | 0.143 | 3.30 | 0.9 | 0.0 | 88.42 | 1.131 | 0.0 | 11.644 | 1.248 | 42.65 |
| 5.83 | 12.746 | 0.143 | 3.30 | 0.9 | 0.0 | 89.133 | 1.122 | 0.0 | 11.746 | 1.237 | 42.37 |
| 5.84 | 12.746 | 0.143 | 3.30 | 0.9 | 0.0 | 89.133 | 1.122 | 0.0 | 11.746 | 1.237 | 42.37 |
| 5.85 | 12.746 | 0.143 | 3.30 | 0.9 | 0.0 | 89.133 | 1.122 | 0.0 | 11.746 | 1.238 | 42.37 |
| 5.86 | 12.746 | 0.143 | 3.30 | 0.9 | 0.0 | 89.133 | 1.122 | 0.0 | 11.746 | 1.238 | 42.38 |
| 5.87 | 12.746 | 0.143 | 3.30 | 0.9 | 0.0 | 89.133 | 1.122 | 0.0 | 11.746 | 1.238 | 42.38 |
| 5.88 | 12.746 | 0.143 | 3.31 | 0.9 | 0.0 | 89.133 | 1.122 | 0.0 | 11.746 | 1.238 | 42.38 |
| 5.89 | 12.746 | 0.143 | 3.31 | 0.9 | 0.0 | 89.133 | 1.122 | 0.0 | 11.746 | 1.239 | 42.38 |
| 5.90 | 12.746 | 0.143 | 3.31 | 0.9 | 0.0 | 89.133 | 1.122 | 0.0 | 11.746 | 1.239 | 42.38 |
| 5.91 | 12.848 | 0.092 | 3.56 | 1.0 | 0.0 | 139.652 | 0.716 | 0.0 | 11.848 | 0.79 | 37.56 |
| 5.92 | 12.746 | 0.092 | 3.58 | 1.0 | 0.0 | 138.543 | 0.722 | 0.0 | 11.746 | 0.797 | 37.81 |
| 5.93 | 12.644 | 0.102 | 3.59 | 1.0 | 0.0 | 123.961 | 0.807 | 0.0 | 11.644 | 0.892 | 39.07 |
| 5.94 | 12.542 | 0.102 | 3.60 | 1.0 | 0.0 | 122.961 | 0.813 | 0.0 | 11.542 | 0.9 | 39.34 |
| 5.95 | 12.542 | 0.102 | 3.61 | 1.0 | 0.0 | 122.961 | 0.813 | 0.0 | 11.542 | 0.9 | 39.34 |
| 5.96 | 12.44 | 0.112 | 3.63 | 0.9 | 0.0 | 111.071 | 0.9 | 0.0 | 11.44 | 0.998 | 40.57 |
| 5.97 | 12.542 | 0.112 | 3.63 | 1.0 | 0.0 | 111.982 | 0.893 | 0.0 | 11.542 | 0.989 | 40.29 |
| 5.98 | 12.542 | 0.112 | 3.64 | 0.9 | 0.0 | 111.982 | 0.893 | 0.0 | 11.542 | 0.989 | 40.29 |
| 5.99 | 12.542 | 0.112 | 3.66 | 1.0 | 0.0 | 111.982 | 0.893 | 0.0 | 11.542 | 0.989 | 40.3 |
| 6.00 | 12.542 | 0.112 | 3.67 | 0.9 | 0.0 | 111.982 | 0.893 | 0.0 | 11.542 | 0.989 | 40.3 |
| 6.01 | 12.542 | 0.112 | 3.67 | 0.9 | 0.0 | 111.982 | 0.893 | 0.0 | 11.542 | 0.989 | 40.3 |
| 6.02 | 12.542 | 0.112 | 3.68 | 0.9 | 0.0 | 111.982 | 0.893 | 0.0 | 11.542 | 0.99 | 40.3 |
| 6.03 | 12.542 | 0.122 | 3.69 | 1.0 | 0.0 | 102.803 | 0.973 | 0.0 | 11.542 | 1.078 | 41.21 |
| 6.04 | 12.542 | 0.122 | 3.70 | 1.0 | 0.0 | 102.803 | 0.973 | 0.0 | 11.542 | 1.078 | 41.21 |
| 6.05 | 12.542 | 0.122 | 3.71 | 0.9 | 0.0 | 102.803 | 0.973 | 0.0 | 11.542 | 1.078 | 41.21 |
| 6.06 | 12.644 | 0.112 | 3.71 | 1.0 | 0.0 | 112.893 | 0.886 | 0.0 | 11.644 | 0.981 | 40.03 |
| 6.07 | 12.644 | 0.112 | 3.72 | 1.0 | 0.0 | 112.893 | 0.886 | 0.0 | 11.644 | 0.982 | 40.04 |

Prova n. 2

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|---------|-------|-----|--------|-------|-------|
| 6.08 | 12.644 | 0.112 | 3.72 | 1.0 | 0.0 | 112.893 | 0.886 | 0.0 | 11.644 | 0.982 | 40.04 |
| 6.09 | 12.542 | 0.112 | 3.73 | 1.0 | 0.0 | 111.982 | 0.893 | 0.0 | 11.542 | 0.991 | 40.31 |
| 6.10 | 12.542 | 0.112 | 3.74 | 0.9 | 0.0 | 111.982 | 0.893 | 0.0 | 11.542 | 0.991 | 40.31 |
| 6.11 | 12.44 | 0.112 | 3.74 | 0.9 | 0.0 | 111.071 | 0.9 | 0.0 | 11.44 | 1.0 | 40.59 |
| 6.12 | 12.44 | 0.112 | 3.74 | 0.9 | 0.0 | 111.071 | 0.9 | 0.0 | 11.44 | 1.0 | 40.6 |
| 6.13 | 12.338 | 0.112 | 3.75 | 0.9 | 0.0 | 110.161 | 0.908 | 0.0 | 11.338 | 1.01 | 40.88 |
| 6.14 | 12.338 | 0.112 | 3.75 | 1.0 | 0.0 | 110.161 | 0.908 | 0.0 | 11.338 | 1.01 | 40.88 |
| 6.15 | 12.338 | 0.112 | 3.75 | 0.9 | 0.0 | 110.161 | 0.908 | 0.0 | 11.338 | 1.01 | 40.88 |
| 6.16 | 12.338 | 0.112 | 3.76 | 0.9 | 0.0 | 110.161 | 0.908 | 0.0 | 11.338 | 1.01 | 40.88 |
| 6.17 | 12.338 | 0.112 | 3.76 | 0.9 | 0.0 | 110.161 | 0.908 | 0.0 | 11.338 | 1.01 | 40.89 |
| 6.18 | 12.338 | 0.112 | 3.76 | 0.9 | 0.0 | 110.161 | 0.908 | 0.0 | 11.338 | 1.01 | 40.89 |
| 6.19 | 12.338 | 0.112 | 3.77 | 0.9 | 0.0 | 110.161 | 0.908 | 0.0 | 11.338 | 1.011 | 40.89 |
| 6.20 | 12.338 | 0.112 | 3.77 | 0.9 | 0.0 | 110.161 | 0.908 | 0.0 | 11.338 | 1.011 | 40.89 |
| 6.21 | 12.338 | 0.112 | 3.77 | 0.9 | 0.0 | 110.161 | 0.908 | 0.0 | 11.338 | 1.011 | 40.89 |
| 6.22 | 12.338 | 0.122 | 3.78 | 0.9 | 0.0 | 101.131 | 0.989 | 0.0 | 11.338 | 1.101 | 41.81 |
| 6.23 | 12.44 | 0.122 | 3.78 | 0.9 | 0.0 | 101.967 | 0.981 | 0.0 | 11.44 | 1.092 | 41.53 |
| 6.24 | 12.542 | 0.122 | 3.79 | 0.9 | 0.0 | 102.803 | 0.973 | 0.0 | 11.542 | 1.082 | 41.25 |
| 6.25 | 12.644 | 0.122 | 3.79 | 1.0 | 0.0 | 103.639 | 0.965 | 0.0 | 11.644 | 1.072 | 40.97 |
| 6.26 | 12.644 | 0.122 | 3.79 | 0.9 | 0.0 | 103.639 | 0.965 | 0.0 | 11.644 | 1.073 | 40.97 |
| 6.27 | 12.746 | 0.133 | 3.79 | 0.9 | 0.0 | 95.835 | 1.043 | 0.0 | 11.746 | 1.159 | 41.64 |
| 6.28 | 12.746 | 0.133 | 3.79 | 1.0 | 0.0 | 95.835 | 1.043 | 0.0 | 11.746 | 1.159 | 41.64 |
| 6.29 | 12.746 | 0.133 | 3.79 | 0.9 | 0.0 | 95.835 | 1.043 | 0.0 | 11.746 | 1.159 | 41.64 |
| 6.30 | 12.746 | 0.133 | 3.79 | 1.0 | 0.0 | 95.835 | 1.043 | 0.0 | 11.746 | 1.16 | 41.64 |
| 6.31 | 12.746 | 0.143 | 3.79 | 0.9 | 0.0 | 89.133 | 1.122 | 0.0 | 11.746 | 1.247 | 42.46 |
| 6.32 | 12.746 | 0.143 | 3.80 | 1.0 | 0.0 | 89.133 | 1.122 | 0.0 | 11.746 | 1.247 | 42.46 |
| 6.33 | 12.746 | 0.143 | 3.81 | 1.0 | 0.0 | 89.133 | 1.122 | 0.0 | 11.746 | 1.247 | 42.46 |
| 6.34 | 12.746 | 0.143 | 3.81 | 1.0 | 0.0 | 89.133 | 1.122 | 0.0 | 11.746 | 1.248 | 42.47 |
| 6.35 | 12.746 | 0.143 | 3.81 | 1.0 | 0.0 | 89.133 | 1.122 | 0.0 | 11.746 | 1.248 | 42.47 |
| 6.36 | 12.746 | 0.143 | 3.81 | 1.0 | 0.0 | 89.133 | 1.122 | 0.0 | 11.746 | 1.248 | 42.47 |
| 6.37 | 12.746 | 0.143 | 3.81 | 1.0 | 0.0 | 89.133 | 1.122 | 0.0 | 11.746 | 1.248 | 42.47 |
| 6.38 | 12.746 | 0.143 | 3.81 | 1.0 | 0.0 | 89.133 | 1.122 | 0.0 | 11.746 | 1.248 | 42.47 |
| 6.39 | 12.746 | 0.143 | 3.82 | 1.0 | 0.0 | 89.133 | 1.122 | 0.0 | 11.746 | 1.249 | 42.47 |
| 6.40 | 12.746 | 0.143 | 3.82 | 1.0 | 0.0 | 89.133 | 1.122 | 0.0 | 11.746 | 1.249 | 42.48 |
| 6.41 | 12.746 | 0.143 | 3.82 | 1.0 | 0.0 | 89.133 | 1.122 | 0.0 | 11.746 | 1.249 | 42.48 |
| 6.42 | 12.746 | 0.143 | 3.83 | 1.0 | 0.0 | 89.133 | 1.122 | 0.0 | 11.746 | 1.249 | 42.48 |
| 6.43 | 12.746 | 0.143 | 3.83 | 1.0 | 0.0 | 89.133 | 1.122 | 0.0 | 11.746 | 1.249 | 42.48 |
| 6.44 | 12.746 | 0.143 | 3.84 | 1.0 | 0.0 | 89.133 | 1.122 | 0.0 | 11.746 | 1.25 | 42.48 |
| 6.45 | 12.848 | 0.143 | 3.84 | 1.0 | 0.0 | 89.846 | 1.113 | 0.0 | 11.848 | 1.239 | 42.2 |
| 6.46 | 12.848 | 0.143 | 3.85 | 1.0 | 0.0 | 89.846 | 1.113 | 0.0 | 11.848 | 1.239 | 42.21 |
| 6.47 | 12.95 | 0.143 | 3.85 | 1.0 | 0.0 | 90.559 | 1.104 | 0.0 | 11.95 | 1.228 | 41.93 |
| 6.48 | 12.95 | 0.133 | 3.85 | 1.0 | 0.0 | 97.368 | 1.027 | 0.0 | 11.95 | 1.143 | 41.12 |
| 6.49 | 12.95 | 0.133 | 3.85 | 1.0 | 0.0 | 97.368 | 1.027 | 0.0 | 11.95 | 1.143 | 41.12 |
| 6.50 | 13.052 | 0.133 | 3.85 | 1.0 | 0.0 | 98.135 | 1.019 | 0.0 | 12.052 | 1.133 | 40.86 |
| 6.51 | 13.052 | 0.143 | 3.87 | 1.0 | 0.0 | 91.273 | 1.096 | 0.0 | 12.052 | 1.219 | 41.66 |
| 6.52 | 12.95 | 0.143 | 3.87 | 1.0 | 0.0 | 90.559 | 1.104 | 0.0 | 11.95 | 1.229 | 41.94 |
| 6.53 | 12.95 | 0.143 | 3.87 | 1.0 | 0.0 | 90.559 | 1.104 | 0.0 | 11.95 | 1.23 | 41.94 |
| 6.54 | 12.848 | 0.143 | 3.88 | 1.0 | 0.0 | 89.846 | 1.113 | 0.0 | 11.848 | 1.241 | 42.22 |
| 6.55 | 12.848 | 0.143 | 3.88 | 1.0 | 0.0 | 89.846 | 1.113 | 0.0 | 11.848 | 1.241 | 42.22 |
| 6.56 | 12.848 | 0.143 | 3.89 | 1.0 | 0.0 | 89.846 | 1.113 | 0.0 | 11.848 | 1.241 | 42.23 |
| 6.57 | 12.746 | 0.133 | 3.89 | 1.0 | 0.0 | 95.835 | 1.043 | 0.0 | 11.746 | 1.165 | 41.69 |
| 6.58 | 12.746 | 0.133 | 3.90 | 1.0 | 0.0 | 95.835 | 1.043 | 0.0 | 11.746 | 1.165 | 41.69 |
| 6.59 | 12.746 | 0.133 | 3.90 | 1.0 | 0.0 | 95.835 | 1.043 | 0.0 | 11.746 | 1.165 | 41.69 |
| 6.60 | 12.848 | 0.133 | 3.90 | 1.0 | 0.0 | 96.602 | 1.035 | 0.0 | 11.848 | 1.155 | 41.42 |
| 6.61 | 12.848 | 0.133 | 3.91 | 1.0 | 0.0 | 96.602 | 1.035 | 0.0 | 11.848 | 1.155 | 41.42 |
| 6.62 | 12.95 | 0.133 | 3.92 | 1.0 | 0.0 | 97.368 | 1.027 | 0.0 | 11.95 | 1.145 | 41.15 |
| 6.63 | 13.052 | 0.133 | 3.92 | 1.0 | 0.0 | 98.135 | 1.019 | 0.0 | 12.052 | 1.135 | 40.88 |
| 6.64 | 13.154 | 0.122 | 3.93 | 1.0 | 0.0 | 107.82 | 0.927 | 0.0 | 12.154 | 1.033 | 39.69 |
| 6.65 | 13.154 | 0.122 | 3.93 | 1.0 | 0.0 | 107.82 | 0.927 | 0.0 | 12.154 | 1.033 | 39.69 |
| 6.66 | 13.154 | 0.122 | 3.93 | 1.0 | 0.0 | 107.82 | 0.927 | 0.0 | 12.154 | 1.033 | 39.7 |
| 6.67 | 13.154 | 0.122 | 3.94 | 1.0 | 0.0 | 107.82 | 0.927 | 0.0 | 12.154 | 1.033 | 39.7 |
| 6.68 | 13.154 | 0.122 | 3.94 | 1.0 | 0.0 | 107.82 | 0.927 | 0.0 | 12.154 | 1.033 | 39.7 |
| 6.69 | 13.154 | 0.133 | 3.94 | 1.0 | 0.0 | 98.902 | 1.011 | 0.0 | 12.154 | 1.127 | 40.62 |
| 6.70 | 13.052 | 0.122 | 3.95 | 1.0 | 0.0 | 106.984 | 0.935 | 0.0 | 12.052 | 1.043 | 39.96 |
| 6.71 | 13.052 | 0.122 | 3.95 | 1.0 | 0.0 | 106.984 | 0.935 | 0.0 | 12.052 | 1.043 | 39.97 |
| 6.72 | 13.052 | 0.122 | 3.96 | 1.0 | 0.0 | 106.984 | 0.935 | 0.0 | 12.052 | 1.043 | 39.97 |
| 6.73 | 12.95 | 0.122 | 3.99 | 1.0 | 0.0 | 106.148 | 0.942 | 0.0 | 11.95 | 1.052 | 40.23 |

Prova n. 2

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|---------|-------|-----|--------|-------|-------|
| 6.74 | 12.95 | 0.112 | 3.99 | 1.0 | 0.0 | 115.625 | 0.865 | 0.0 | 11.95 | 0.966 | 39.35 |
| 6.75 | 12.95 | 0.112 | 4.01 | 1.0 | 0.0 | 115.625 | 0.865 | 0.0 | 11.95 | 0.966 | 39.35 |
| 6.76 | 13.052 | 0.112 | 4.02 | 1.0 | 0.0 | 116.536 | 0.858 | 0.0 | 12.052 | 0.958 | 39.09 |
| 6.77 | 13.154 | 0.112 | 4.03 | 1.0 | 0.0 | 117.446 | 0.851 | 0.0 | 12.154 | 0.95 | 38.83 |
| 6.78 | 13.256 | 0.112 | 4.03 | 1.0 | 0.0 | 118.357 | 0.845 | 0.0 | 12.256 | 0.942 | 38.58 |
| 6.79 | 13.256 | 0.112 | 4.04 | 1.0 | 0.0 | 118.357 | 0.845 | 0.0 | 12.256 | 0.942 | 38.58 |
| 6.80 | 13.358 | 0.112 | 4.04 | 1.0 | 0.0 | 119.268 | 0.838 | 0.0 | 12.358 | 0.934 | 38.33 |
| 6.81 | 13.358 | 0.112 | 4.04 | 1.0 | 0.0 | 119.268 | 0.838 | 0.0 | 12.358 | 0.934 | 38.33 |
| 6.82 | 13.358 | 0.112 | 4.04 | 1.0 | 0.0 | 119.268 | 0.838 | 0.0 | 12.358 | 0.935 | 38.34 |
| 6.83 | 13.358 | 0.112 | 4.04 | 1.0 | 0.0 | 119.268 | 0.838 | 0.0 | 12.358 | 0.935 | 38.34 |
| 6.84 | 13.256 | 0.122 | 4.06 | 1.0 | 0.0 | 108.656 | 0.92 | 0.0 | 12.256 | 1.027 | 39.47 |
| 6.85 | 11.727 | 0.092 | 4.03 | 1.0 | 0.0 | 127.467 | 0.785 | 0.0 | 10.727 | 0.889 | 40.73 |
| 6.86 | 13.256 | 0.122 | 4.07 | 1.0 | 0.0 | 108.656 | 0.92 | 0.0 | 12.256 | 1.027 | 39.47 |
| 6.87 | 13.358 | 0.122 | 4.08 | 1.0 | 0.0 | 109.492 | 0.913 | 0.0 | 12.358 | 1.019 | 39.21 |
| 6.88 | 13.358 | 0.122 | 4.08 | 1.0 | 0.0 | 109.492 | 0.913 | 0.0 | 12.358 | 1.019 | 39.22 |
| 6.89 | 13.358 | 0.122 | 4.08 | 1.0 | 0.0 | 109.492 | 0.913 | 0.0 | 12.358 | 1.019 | 39.22 |
| 6.90 | 13.97 | 0.092 | 4.26 | 1.0 | 0.0 | 151.848 | 0.659 | 0.0 | 12.97 | 0.731 | 35.09 |
| 6.91 | 13.97 | 0.092 | 4.26 | 1.0 | 0.0 | 151.848 | 0.659 | 0.0 | 12.97 | 0.731 | 35.09 |
| 6.92 | 13.868 | 0.092 | 4.27 | 1.0 | 0.0 | 150.739 | 0.663 | 0.0 | 12.868 | 0.738 | 35.31 |
| 6.93 | 13.868 | 0.102 | 4.27 | 1.0 | 0.0 | 135.961 | 0.736 | 0.0 | 12.868 | 0.818 | 36.25 |
| 6.94 | 13.868 | 0.102 | 4.28 | 1.0 | 0.0 | 135.961 | 0.736 | 0.0 | 12.868 | 0.818 | 36.25 |
| 6.95 | 13.766 | 0.102 | 4.30 | 1.0 | 0.0 | 134.961 | 0.741 | 0.0 | 12.766 | 0.825 | 36.49 |
| 6.96 | 13.868 | 0.102 | 4.31 | 1.0 | 0.0 | 135.961 | 0.736 | 0.0 | 12.868 | 0.818 | 36.26 |
| 6.97 | 13.868 | 0.112 | 4.32 | 1.0 | 0.0 | 123.821 | 0.808 | 0.0 | 12.868 | 0.899 | 37.15 |
| 6.98 | 13.868 | 0.112 | 4.34 | 1.0 | 0.0 | 123.821 | 0.808 | 0.0 | 12.868 | 0.899 | 37.15 |
| 6.99 | 14.072 | 0.112 | 4.35 | 1.0 | 0.0 | 125.643 | 0.796 | 0.0 | 13.072 | 0.884 | 36.69 |
| 7.00 | 14.174 | 0.112 | 4.36 | 1.0 | 0.0 | 126.554 | 0.79 | 0.0 | 13.174 | 0.877 | 36.46 |
| 7.01 | 14.276 | 0.102 | 4.38 | 1.0 | 0.0 | 139.961 | 0.714 | 0.0 | 13.276 | 0.793 | 35.36 |
| 7.02 | 14.48 | 0.102 | 4.39 | 1.0 | 0.0 | 141.961 | 0.704 | 0.0 | 13.48 | 0.781 | 34.93 |
| 7.03 | 14.582 | 0.112 | 4.39 | 1.0 | 0.0 | 130.196 | 0.768 | 0.0 | 13.582 | 0.851 | 35.58 |
| 7.04 | 14.684 | 0.102 | 4.40 | 1.0 | 0.0 | 143.961 | 0.695 | 0.0 | 13.684 | 0.769 | 34.51 |
| 7.05 | 14.684 | 0.102 | 4.40 | 1.0 | 0.0 | 143.961 | 0.695 | 0.0 | 13.684 | 0.769 | 34.51 |
| 7.06 | 14.684 | 0.102 | 4.41 | 1.0 | 0.0 | 143.961 | 0.695 | 0.0 | 13.684 | 0.769 | 34.51 |
| 7.07 | 14.378 | 0.102 | 4.41 | 1.0 | 0.0 | 140.961 | 0.709 | 0.0 | 13.378 | 0.787 | 35.15 |
| 7.08 | 14.276 | 0.102 | 4.41 | 1.0 | 0.0 | 139.961 | 0.714 | 0.0 | 13.276 | 0.794 | 35.37 |
| 7.09 | 14.174 | 0.102 | 4.42 | 1.0 | 0.0 | 138.961 | 0.72 | 0.0 | 13.174 | 0.8 | 35.59 |
| 7.10 | 14.072 | 0.092 | 4.42 | 1.0 | 0.0 | 152.957 | 0.654 | 0.0 | 13.072 | 0.728 | 34.89 |
| 7.11 | 14.072 | 0.092 | 4.43 | 1.0 | 0.0 | 152.957 | 0.654 | 0.0 | 13.072 | 0.728 | 34.89 |
| 7.12 | 13.97 | 0.092 | 4.43 | 1.0 | 0.0 | 151.848 | 0.659 | 0.0 | 12.97 | 0.734 | 35.11 |
| 7.13 | 13.97 | 0.092 | 4.44 | 1.0 | 0.0 | 151.848 | 0.659 | 0.0 | 12.97 | 0.734 | 35.12 |
| 7.14 | 13.97 | 0.092 | 4.44 | 1.0 | 0.0 | 151.848 | 0.659 | 0.0 | 12.97 | 0.734 | 35.12 |
| 7.15 | 13.868 | 0.092 | 4.45 | 1.0 | 0.0 | 150.739 | 0.663 | 0.0 | 12.868 | 0.74 | 35.34 |
| 7.16 | 13.868 | 0.092 | 4.46 | 1.0 | 0.0 | 150.739 | 0.663 | 0.0 | 12.868 | 0.74 | 35.34 |
| 7.17 | 13.868 | 0.082 | 4.47 | 1.0 | 0.0 | 169.122 | 0.591 | 0.0 | 12.868 | 0.66 | 34.35 |
| 7.18 | 13.868 | 0.082 | 4.48 | 1.0 | 0.0 | 169.122 | 0.591 | 0.0 | 12.868 | 0.66 | 34.35 |
| 7.19 | 13.868 | 0.082 | 4.48 | 1.0 | 0.0 | 169.122 | 0.591 | 0.0 | 12.868 | 0.66 | 34.35 |
| 7.20 | 13.868 | 0.082 | 4.49 | 1.0 | 0.0 | 169.122 | 0.591 | 0.0 | 12.868 | 0.66 | 34.36 |
| 7.21 | 13.868 | 0.082 | 4.50 | 1.0 | 0.0 | 169.122 | 0.591 | 0.0 | 12.868 | 0.66 | 34.36 |
| 7.22 | 13.766 | 0.082 | 4.50 | 1.0 | 0.0 | 167.878 | 0.596 | 0.0 | 12.766 | 0.666 | 34.58 |
| 7.23 | 13.766 | 0.071 | 4.50 | 1.0 | 0.0 | 193.887 | 0.516 | 0.0 | 12.766 | 0.577 | 33.41 |
| 7.24 | 13.664 | 0.082 | 4.51 | 1.0 | 0.0 | 166.634 | 0.6 | 0.0 | 12.664 | 0.672 | 34.81 |
| 7.25 | 13.562 | 0.071 | 4.51 | 1.0 | 0.0 | 191.014 | 0.524 | 0.0 | 12.562 | 0.586 | 33.85 |
| 7.26 | 13.562 | 0.071 | 4.52 | 1.0 | 0.0 | 191.014 | 0.524 | 0.0 | 12.562 | 0.587 | 33.85 |
| 7.27 | 13.46 | 0.071 | 4.52 | 1.0 | 0.0 | 189.577 | 0.527 | 0.0 | 12.46 | 0.592 | 34.07 |
| 7.28 | 13.46 | 0.071 | 4.53 | 1.0 | 0.0 | 189.577 | 0.527 | 0.0 | 12.46 | 0.592 | 34.07 |
| 7.29 | 13.46 | 0.071 | 4.54 | 1.0 | 0.0 | 189.577 | 0.527 | 0.0 | 12.46 | 0.592 | 34.08 |
| 7.30 | 13.46 | 0.071 | 4.54 | 1.0 | 0.0 | 189.577 | 0.527 | 0.0 | 12.46 | 0.592 | 34.08 |
| 7.31 | 13.46 | 0.071 | 4.54 | 1.0 | 0.0 | 189.577 | 0.527 | 0.0 | 12.46 | 0.592 | 34.08 |
| 7.32 | 13.46 | 0.071 | 4.55 | 1.0 | 0.0 | 189.577 | 0.527 | 0.0 | 12.46 | 0.592 | 34.08 |
| 7.33 | 13.562 | 0.071 | 4.56 | 1.0 | 0.0 | 191.014 | 0.524 | 0.0 | 12.562 | 0.587 | 33.86 |
| 7.34 | 13.562 | 0.071 | 4.56 | 1.0 | 0.0 | 191.014 | 0.524 | 0.0 | 12.562 | 0.587 | 33.86 |
| 7.35 | 13.562 | 0.071 | 4.56 | 1.0 | 0.0 | 191.014 | 0.524 | 0.0 | 12.562 | 0.587 | 33.86 |
| 7.36 | 13.562 | 0.082 | 4.57 | 1.0 | 0.0 | 165.39 | 0.605 | 0.0 | 12.562 | 0.679 | 35.05 |
| 7.37 | 13.562 | 0.082 | 4.57 | 1.0 | 0.0 | 165.39 | 0.605 | 0.0 | 12.562 | 0.679 | 35.05 |
| 7.38 | 13.562 | 0.082 | 4.58 | 1.0 | 0.0 | 165.39 | 0.605 | 0.0 | 12.562 | 0.679 | 35.05 |
| 7.39 | 13.46 | 0.082 | 4.58 | 1.0 | 0.0 | 164.146 | 0.609 | 0.0 | 12.46 | 0.685 | 35.28 |

Prova n. 2

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|---------|-------|-----|--------|-------|-------|
| 7.40 | 13.46 | 0.082 | 4.58 | 1.0 | 0.0 | 164.146 | 0.609 | 0.0 | 12.46 | 0.685 | 35.28 |
| 7.41 | 13.358 | 0.092 | 4.59 | 1.0 | 0.0 | 145.196 | 0.689 | 0.0 | 12.358 | 0.775 | 36.54 |
| 7.42 | 13.256 | 0.092 | 4.59 | 1.0 | 0.0 | 144.087 | 0.694 | 0.0 | 12.256 | 0.782 | 36.79 |
| 7.43 | 13.256 | 0.092 | 4.60 | 1.0 | 0.0 | 144.087 | 0.694 | 0.0 | 12.256 | 0.782 | 36.79 |
| 7.44 | 13.358 | 0.092 | 4.60 | 1.0 | 0.0 | 145.196 | 0.689 | 0.0 | 12.358 | 0.775 | 36.55 |
| 7.45 | 13.358 | 0.092 | 4.60 | 1.0 | 0.0 | 145.196 | 0.689 | 0.0 | 12.358 | 0.775 | 36.55 |
| 7.46 | 13.358 | 0.092 | 4.61 | 1.0 | 0.0 | 145.196 | 0.689 | 0.0 | 12.358 | 0.776 | 36.55 |
| 7.47 | 13.358 | 0.092 | 4.61 | 1.0 | 0.0 | 145.196 | 0.689 | 0.0 | 12.358 | 0.776 | 36.55 |
| 7.48 | 13.358 | 0.102 | 4.61 | 1.1 | 0.0 | 130.961 | 0.764 | 0.0 | 12.358 | 0.86 | 37.52 |
| 7.49 | 13.358 | 0.102 | 4.61 | 1.0 | 0.0 | 130.961 | 0.764 | 0.0 | 12.358 | 0.86 | 37.52 |
| 7.50 | 13.46 | 0.102 | 4.62 | 1.0 | 0.0 | 131.961 | 0.758 | 0.0 | 12.46 | 0.853 | 37.28 |
| 7.51 | 13.46 | 0.102 | 4.62 | 1.0 | 0.0 | 131.961 | 0.758 | 0.0 | 12.46 | 0.853 | 37.28 |
| 7.52 | 13.562 | 0.112 | 4.63 | 1.1 | 0.0 | 121.089 | 0.826 | 0.0 | 12.562 | 0.929 | 37.95 |
| 7.53 | 13.664 | 0.112 | 4.64 | 1.0 | 0.0 | 122.0 | 0.82 | 0.0 | 12.664 | 0.921 | 37.71 |
| 7.54 | 13.664 | 0.112 | 4.64 | 1.0 | 0.0 | 122.0 | 0.82 | 0.0 | 12.664 | 0.922 | 37.71 |
| 7.55 | 13.766 | 0.112 | 4.65 | 1.0 | 0.0 | 122.911 | 0.814 | 0.0 | 12.766 | 0.914 | 37.47 |
| 7.56 | 13.868 | 0.112 | 4.66 | 1.0 | 0.0 | 123.821 | 0.808 | 0.0 | 12.868 | 0.907 | 37.24 |
| 7.57 | 13.97 | 0.112 | 4.66 | 1.0 | 0.0 | 124.732 | 0.802 | 0.0 | 12.97 | 0.899 | 37 |
| 7.58 | 13.97 | 0.112 | 4.66 | 1.0 | 0.0 | 124.732 | 0.802 | 0.0 | 12.97 | 0.899 | 37 |
| 7.59 | 13.97 | 0.112 | 4.67 | 1.0 | 0.0 | 124.732 | 0.802 | 0.0 | 12.97 | 0.9 | 37.01 |
| 7.60 | 14.072 | 0.122 | 4.67 | 1.0 | 0.0 | 115.344 | 0.867 | 0.0 | 13.072 | 0.972 | 37.62 |
| 7.61 | 14.072 | 0.122 | 4.67 | 1.0 | 0.0 | 115.344 | 0.867 | 0.0 | 13.072 | 0.972 | 37.62 |
| 7.62 | 14.072 | 0.122 | 4.67 | 1.0 | 0.0 | 115.344 | 0.867 | 0.0 | 13.072 | 0.972 | 37.62 |
| 7.63 | 14.072 | 0.122 | 4.68 | 1.0 | 0.0 | 115.344 | 0.867 | 0.0 | 13.072 | 0.973 | 37.62 |
| 7.64 | 14.072 | 0.122 | 4.68 | 1.0 | 0.0 | 115.344 | 0.867 | 0.0 | 13.072 | 0.973 | 37.63 |
| 7.65 | 14.072 | 0.133 | 4.68 | 1.0 | 0.0 | 105.805 | 0.945 | 0.0 | 13.072 | 1.061 | 38.51 |
| 7.66 | 14.072 | 0.133 | 4.68 | 1.0 | 0.0 | 105.805 | 0.945 | 0.0 | 13.072 | 1.061 | 38.51 |
| 7.67 | 13.97 | 0.133 | 4.68 | 1.0 | 0.0 | 105.038 | 0.952 | 0.0 | 12.97 | 1.07 | 38.76 |
| 7.68 | 13.868 | 0.133 | 4.68 | 1.0 | 0.0 | 104.271 | 0.959 | 0.0 | 12.868 | 1.079 | 39 |
| 7.69 | 13.766 | 0.143 | 4.68 | 1.0 | 0.0 | 96.266 | 1.039 | 0.0 | 12.766 | 1.17 | 40.03 |
| 7.70 | 13.766 | 0.143 | 4.68 | 1.0 | 0.0 | 96.266 | 1.039 | 0.0 | 12.766 | 1.17 | 40.04 |
| 7.71 | 13.664 | 0.143 | 4.68 | 1.0 | 0.0 | 95.552 | 1.047 | 0.0 | 12.664 | 1.18 | 40.29 |
| 7.72 | 13.664 | 0.143 | 4.68 | 1.0 | 0.0 | 95.552 | 1.047 | 0.0 | 12.664 | 1.18 | 40.29 |
| 7.73 | 13.664 | 0.143 | 4.68 | 1.0 | 0.0 | 95.552 | 1.047 | 0.0 | 12.664 | 1.18 | 40.29 |
| 7.74 | 13.664 | 0.143 | 4.69 | 1.0 | 0.0 | 95.552 | 1.047 | 0.0 | 12.664 | 1.18 | 40.3 |
| 7.75 | 13.664 | 0.143 | 4.69 | 1.0 | 0.0 | 95.552 | 1.047 | 0.0 | 12.664 | 1.181 | 40.3 |
| 7.76 | 13.664 | 0.143 | 4.70 | 1.0 | 0.0 | 95.552 | 1.047 | 0.0 | 12.664 | 1.181 | 40.3 |
| 7.77 | 13.562 | 0.143 | 4.70 | 1.0 | 0.0 | 94.839 | 1.054 | 0.0 | 12.562 | 1.191 | 40.56 |
| 7.78 | 13.664 | 0.143 | 4.70 | 1.0 | 0.0 | 95.552 | 1.047 | 0.0 | 12.664 | 1.181 | 40.3 |
| 7.79 | 13.664 | 0.143 | 4.71 | 1.0 | 0.0 | 95.552 | 1.047 | 0.0 | 12.664 | 1.181 | 40.31 |
| 7.80 | 13.664 | 0.143 | 4.71 | 1.0 | 0.0 | 95.552 | 1.047 | 0.0 | 12.664 | 1.181 | 40.31 |
| 7.81 | 13.664 | 0.143 | 4.71 | 1.0 | 0.0 | 95.552 | 1.047 | 0.0 | 12.664 | 1.182 | 40.31 |
| 7.82 | 13.664 | 0.143 | 4.71 | 1.0 | 0.0 | 95.552 | 1.047 | 0.0 | 12.664 | 1.182 | 40.31 |
| 7.83 | 13.664 | 0.133 | 4.72 | 1.0 | 0.0 | 102.737 | 0.973 | 0.0 | 12.664 | 1.099 | 39.52 |
| 7.84 | 13.766 | 0.133 | 4.72 | 1.0 | 0.0 | 103.504 | 0.966 | 0.0 | 12.766 | 1.09 | 39.28 |
| 7.85 | 13.766 | 0.133 | 4.73 | 1.0 | 0.0 | 103.504 | 0.966 | 0.0 | 12.766 | 1.09 | 39.28 |
| 7.86 | 13.766 | 0.133 | 4.73 | 1.0 | 0.0 | 103.504 | 0.966 | 0.0 | 12.766 | 1.091 | 39.28 |
| 7.87 | 13.868 | 0.133 | 4.73 | 1.0 | 0.0 | 104.271 | 0.959 | 0.0 | 12.868 | 1.082 | 39.03 |
| 7.88 | 13.868 | 0.133 | 4.73 | 1.0 | 0.0 | 104.271 | 0.959 | 0.0 | 12.868 | 1.082 | 39.03 |
| 7.89 | 13.868 | 0.133 | 4.73 | 1.0 | 0.0 | 104.271 | 0.959 | 0.0 | 12.868 | 1.082 | 39.04 |
| 7.90 | 14.174 | 0.092 | 4.91 | 1.1 | 0.0 | 154.065 | 0.649 | 0.0 | 13.174 | 0.73 | 34.78 |
| 7.91 | 14.276 | 0.102 | 4.91 | 1.0 | 0.0 | 139.961 | 0.714 | 0.0 | 13.276 | 0.803 | 35.49 |
| 7.92 | 14.174 | 0.102 | 4.92 | 1.0 | 0.0 | 138.961 | 0.72 | 0.0 | 13.174 | 0.81 | 35.71 |
| 7.93 | 14.276 | 0.112 | 4.93 | 1.1 | 0.0 | 127.464 | 0.785 | 0.0 | 13.276 | 0.882 | 36.37 |
| 7.94 | 14.276 | 0.112 | 4.94 | 1.1 | 0.0 | 127.464 | 0.785 | 0.0 | 13.276 | 0.883 | 36.37 |
| 7.95 | 14.276 | 0.112 | 4.95 | 1.1 | 0.0 | 127.464 | 0.785 | 0.0 | 13.276 | 0.883 | 36.37 |
| 7.96 | 14.276 | 0.112 | 4.97 | 1.1 | 0.0 | 127.464 | 0.785 | 0.0 | 13.276 | 0.883 | 36.37 |
| 7.97 | 14.276 | 0.112 | 4.98 | 1.0 | 0.0 | 127.464 | 0.785 | 0.0 | 13.276 | 0.883 | 36.37 |
| 7.98 | 14.276 | 0.122 | 4.98 | 1.0 | 0.0 | 117.016 | 0.855 | 0.0 | 13.276 | 0.962 | 37.21 |
| 7.99 | 14.276 | 0.122 | 4.99 | 1.0 | 0.0 | 117.016 | 0.855 | 0.0 | 13.276 | 0.962 | 37.21 |
| 8.00 | 14.378 | 0.122 | 5.00 | 1.0 | 0.0 | 117.852 | 0.849 | 0.0 | 13.378 | 0.955 | 36.99 |
| 8.01 | 14.378 | 0.122 | 5.01 | 1.0 | 0.0 | 117.852 | 0.849 | 0.0 | 13.378 | 0.955 | 36.99 |
| 8.02 | 14.48 | 0.112 | 5.02 | 1.1 | 0.0 | 129.286 | 0.773 | 0.0 | 13.48 | 0.87 | 35.93 |
| 8.03 | 14.48 | 0.112 | 5.03 | 1.0 | 0.0 | 129.286 | 0.773 | 0.0 | 13.48 | 0.87 | 35.93 |
| 8.04 | 14.582 | 0.112 | 5.05 | 1.1 | 0.0 | 130.196 | 0.768 | 0.0 | 13.582 | 0.863 | 35.72 |
| 8.05 | 14.684 | 0.102 | 5.06 | 1.0 | 0.0 | 143.961 | 0.695 | 0.0 | 13.684 | 0.78 | 34.64 |

Prova n. 2

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|---------|-------|-----|--------|-------|-------|
| 8.06 | 14.888 | 0.102 | 5.08 | 1.1 | 0.0 | 145.961 | 0.685 | 0.0 | 13.888 | 0.768 | 34.22 |
| 8.07 | 14.99 | 0.102 | 5.08 | 1.0 | 0.0 | 146.961 | 0.68 | 0.0 | 13.99 | 0.762 | 34.02 |
| 8.08 | 15.092 | 0.102 | 5.09 | 1.0 | 0.0 | 147.961 | 0.676 | 0.0 | 14.092 | 0.757 | 33.82 |
| 8.09 | 15.092 | 0.102 | 5.10 | 1.1 | 0.0 | 147.961 | 0.676 | 0.0 | 14.092 | 0.757 | 33.82 |
| 8.10 | 15.092 | 0.092 | 5.11 | 1.0 | 0.0 | 164.043 | 0.61 | 0.0 | 14.092 | 0.683 | 32.93 |
| 8.11 | 15.092 | 0.092 | 5.12 | 1.1 | 0.0 | 164.043 | 0.61 | 0.0 | 14.092 | 0.683 | 32.93 |
| 8.12 | 15.194 | 0.092 | 5.13 | 1.1 | 0.0 | 165.152 | 0.606 | 0.0 | 14.194 | 0.678 | 32.74 |
| 8.13 | 15.295 | 0.092 | 5.14 | 1.1 | 0.0 | 166.25 | 0.602 | 0.0 | 14.295 | 0.673 | 32.55 |
| 8.14 | 15.397 | 0.092 | 5.15 | 1.1 | 0.0 | 167.359 | 0.598 | 0.0 | 14.397 | 0.668 | 32.36 |
| 8.15 | 15.499 | 0.092 | 5.16 | 1.1 | 0.0 | 168.467 | 0.594 | 0.0 | 14.499 | 0.663 | 32.17 |
| 8.16 | 15.499 | 0.092 | 5.17 | 1.1 | 0.0 | 168.467 | 0.594 | 0.0 | 14.499 | 0.663 | 32.17 |
| 8.17 | 15.499 | 0.092 | 5.17 | 1.1 | 0.0 | 168.467 | 0.594 | 0.0 | 14.499 | 0.663 | 32.17 |
| 8.18 | 15.499 | 0.092 | 5.17 | 1.1 | 0.0 | 168.467 | 0.594 | 0.0 | 14.499 | 0.663 | 32.17 |
| 8.19 | 15.194 | 0.092 | 5.17 | 1.1 | 0.0 | 165.152 | 0.606 | 0.0 | 14.194 | 0.678 | 32.75 |
| 8.20 | 15.092 | 0.092 | 5.18 | 1.1 | 0.0 | 164.043 | 0.61 | 0.0 | 14.092 | 0.684 | 32.94 |
| 8.21 | 14.99 | 0.092 | 5.18 | 1.1 | 0.0 | 162.935 | 0.614 | 0.0 | 13.99 | 0.689 | 33.14 |
| 8.22 | 14.99 | 0.092 | 5.19 | 1.1 | 0.0 | 162.935 | 0.614 | 0.0 | 13.99 | 0.689 | 33.15 |
| 8.23 | 14.99 | 0.092 | 5.19 | 1.1 | 0.0 | 162.935 | 0.614 | 0.0 | 13.99 | 0.689 | 33.15 |
| 8.24 | 14.99 | 0.082 | 5.20 | 1.1 | 0.0 | 182.805 | 0.547 | 0.0 | 13.99 | 0.614 | 32.2 |
| 8.25 | 15.092 | 0.082 | 5.21 | 1.1 | 0.0 | 184.049 | 0.543 | 0.0 | 14.092 | 0.61 | 32.01 |
| 8.26 | 15.092 | 0.082 | 5.22 | 1.1 | 0.0 | 184.049 | 0.543 | 0.0 | 14.092 | 0.61 | 32.01 |
| 8.27 | 15.194 | 0.092 | 5.23 | 1.1 | 0.0 | 165.152 | 0.606 | 0.0 | 14.194 | 0.679 | 32.76 |
| 8.28 | 15.194 | 0.092 | 5.24 | 1.1 | 0.0 | 165.152 | 0.606 | 0.0 | 14.194 | 0.679 | 32.76 |
| 8.29 | 15.295 | 0.092 | 5.24 | 1.1 | 0.0 | 166.25 | 0.602 | 0.0 | 14.295 | 0.674 | 32.57 |
| 8.30 | 15.295 | 0.092 | 5.25 | 1.1 | 0.0 | 166.25 | 0.602 | 0.0 | 14.295 | 0.674 | 32.57 |
| 8.31 | 15.295 | 0.092 | 5.26 | 1.1 | 0.0 | 166.25 | 0.602 | 0.0 | 14.295 | 0.675 | 32.57 |
| 8.32 | 15.295 | 0.092 | 5.27 | 1.1 | 0.0 | 166.25 | 0.602 | 0.0 | 14.295 | 0.675 | 32.57 |
| 8.33 | 15.295 | 0.092 | 5.27 | 1.1 | 0.0 | 166.25 | 0.602 | 0.0 | 14.295 | 0.675 | 32.57 |
| 8.34 | 15.295 | 0.092 | 5.28 | 1.1 | 0.0 | 166.25 | 0.602 | 0.0 | 14.295 | 0.675 | 32.57 |
| 8.35 | 15.295 | 0.102 | 5.29 | 1.1 | 0.0 | 149.951 | 0.667 | 0.0 | 14.295 | 0.748 | 33.45 |
| 8.36 | 15.397 | 0.102 | 5.31 | 1.1 | 0.0 | 150.951 | 0.662 | 0.0 | 14.397 | 0.743 | 33.26 |
| 8.37 | 15.499 | 0.102 | 5.32 | 1.1 | 0.0 | 151.951 | 0.658 | 0.0 | 14.499 | 0.737 | 33.07 |
| 8.38 | 15.601 | 0.102 | 5.33 | 1.1 | 0.0 | 152.951 | 0.654 | 0.0 | 14.601 | 0.732 | 32.87 |
| 8.39 | 15.703 | 0.102 | 5.34 | 1.1 | 0.0 | 153.951 | 0.65 | 0.0 | 14.703 | 0.727 | 32.69 |
| 8.40 | 15.703 | 0.102 | 5.34 | 1.1 | 0.0 | 153.951 | 0.65 | 0.0 | 14.703 | 0.727 | 32.69 |
| 8.41 | 15.805 | 0.102 | 5.35 | 1.1 | 0.0 | 154.951 | 0.645 | 0.0 | 14.805 | 0.722 | 32.5 |
| 8.42 | 15.907 | 0.102 | 5.36 | 1.1 | 0.0 | 155.951 | 0.641 | 0.0 | 14.907 | 0.717 | 32.32 |
| 8.43 | 15.703 | 0.102 | 5.37 | 1.1 | 0.0 | 153.951 | 0.65 | 0.0 | 14.703 | 0.727 | 32.69 |
| 8.44 | 15.805 | 0.092 | 5.38 | 1.1 | 0.0 | 171.793 | 0.582 | 0.0 | 14.805 | 0.651 | 31.64 |
| 8.45 | 15.703 | 0.092 | 5.38 | 1.1 | 0.0 | 170.685 | 0.586 | 0.0 | 14.703 | 0.656 | 31.83 |
| 8.46 | 15.499 | 0.092 | 5.39 | 1.1 | 0.0 | 168.467 | 0.594 | 0.0 | 14.499 | 0.666 | 32.2 |
| 8.47 | 15.499 | 0.092 | 5.39 | 1.1 | 0.0 | 168.467 | 0.594 | 0.0 | 14.499 | 0.666 | 32.21 |
| 8.48 | 15.499 | 0.092 | 5.40 | 1.1 | 0.0 | 168.467 | 0.594 | 0.0 | 14.499 | 0.666 | 32.21 |
| 8.49 | 15.397 | 0.092 | 5.40 | 1.1 | 0.0 | 167.359 | 0.598 | 0.0 | 14.397 | 0.671 | 32.4 |
| 8.50 | 15.397 | 0.092 | 5.42 | 1.1 | 0.0 | 167.359 | 0.598 | 0.0 | 14.397 | 0.671 | 32.4 |
| 8.51 | 15.397 | 0.092 | 5.42 | 1.1 | 0.0 | 167.359 | 0.598 | 0.0 | 14.397 | 0.671 | 32.4 |
| 8.52 | 15.295 | 0.092 | 5.43 | 1.1 | 0.0 | 166.25 | 0.602 | 0.0 | 14.295 | 0.677 | 32.59 |
| 8.53 | 15.397 | 0.082 | 5.43 | 1.1 | 0.0 | 187.768 | 0.533 | 0.0 | 14.397 | 0.599 | 31.48 |
| 8.54 | 15.397 | 0.092 | 5.44 | 1.1 | 0.0 | 167.359 | 0.598 | 0.0 | 14.397 | 0.672 | 32.4 |
| 8.55 | 15.295 | 0.092 | 5.45 | 1.1 | 0.0 | 166.25 | 0.602 | 0.0 | 14.295 | 0.677 | 32.6 |
| 8.56 | 15.295 | 0.082 | 5.45 | 1.1 | 0.0 | 186.524 | 0.536 | 0.0 | 14.295 | 0.603 | 31.67 |
| 8.57 | 15.295 | 0.092 | 5.46 | 1.1 | 0.0 | 166.25 | 0.602 | 0.0 | 14.295 | 0.677 | 32.6 |
| 8.58 | 15.295 | 0.092 | 5.46 | 1.1 | 0.0 | 166.25 | 0.602 | 0.0 | 14.295 | 0.677 | 32.6 |
| 8.59 | 15.194 | 0.092 | 5.46 | 1.1 | 0.0 | 165.152 | 0.606 | 0.0 | 14.194 | 0.682 | 32.79 |
| 8.60 | 15.194 | 0.092 | 5.46 | 1.1 | 0.0 | 165.152 | 0.606 | 0.0 | 14.194 | 0.682 | 32.8 |
| 8.61 | 15.194 | 0.092 | 5.47 | 1.1 | 0.0 | 165.152 | 0.606 | 0.0 | 14.194 | 0.683 | 32.8 |
| 8.62 | 15.194 | 0.092 | 5.47 | 1.1 | 0.0 | 165.152 | 0.606 | 0.0 | 14.194 | 0.683 | 32.8 |
| 8.63 | 15.194 | 0.092 | 5.48 | 1.1 | 0.0 | 165.152 | 0.606 | 0.0 | 14.194 | 0.683 | 32.8 |
| 8.64 | 15.295 | 0.102 | 5.49 | 1.1 | 0.0 | 149.951 | 0.667 | 0.0 | 14.295 | 0.751 | 33.49 |
| 8.65 | 15.295 | 0.102 | 5.50 | 1.1 | 0.0 | 149.951 | 0.667 | 0.0 | 14.295 | 0.751 | 33.49 |
| 8.66 | 15.397 | 0.102 | 5.50 | 1.1 | 0.0 | 150.951 | 0.662 | 0.0 | 14.397 | 0.746 | 33.3 |
| 8.67 | 15.397 | 0.112 | 5.50 | 1.1 | 0.0 | 137.473 | 0.727 | 0.0 | 14.397 | 0.819 | 34.13 |
| 8.68 | 15.397 | 0.112 | 5.51 | 1.1 | 0.0 | 137.473 | 0.727 | 0.0 | 14.397 | 0.819 | 34.13 |
| 8.69 | 15.499 | 0.112 | 5.51 | 1.1 | 0.0 | 138.384 | 0.723 | 0.0 | 14.499 | 0.813 | 33.94 |
| 8.70 | 15.499 | 0.112 | 5.52 | 1.1 | 0.0 | 138.384 | 0.723 | 0.0 | 14.499 | 0.814 | 33.94 |
| 8.71 | 15.499 | 0.122 | 5.52 | 1.1 | 0.0 | 127.041 | 0.787 | 0.0 | 14.499 | 0.886 | 34.73 |

Prova n. 2

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|---------|-------|-----|--------|-------|-------|
| 8.72 | 15.499 | 0.122 | 5.53 | 1.1 | 0.0 | 127.041 | 0.787 | 0.0 | 14.499 | 0.886 | 34.73 |
| 8.73 | 15.703 | 0.122 | 5.55 | 1.1 | 0.0 | 128.713 | 0.777 | 0.0 | 14.703 | 0.874 | 34.33 |
| 8.74 | 15.805 | 0.122 | 5.55 | 1.1 | 0.0 | 129.549 | 0.772 | 0.0 | 14.805 | 0.867 | 34.14 |
| 8.75 | 15.907 | 0.122 | 5.56 | 1.1 | 0.0 | 130.385 | 0.767 | 0.0 | 14.907 | 0.861 | 33.95 |
| 8.76 | 15.907 | 0.122 | 5.57 | 1.1 | 0.0 | 130.385 | 0.767 | 0.0 | 14.907 | 0.861 | 33.95 |
| 8.77 | 15.805 | 0.122 | 5.57 | 1.1 | 0.0 | 129.549 | 0.772 | 0.0 | 14.805 | 0.868 | 34.14 |
| 8.78 | 15.805 | 0.122 | 5.56 | 1.1 | 0.0 | 129.549 | 0.772 | 0.0 | 14.805 | 0.868 | 34.14 |
| 8.79 | 15.703 | 0.122 | 5.57 | 1.1 | 0.0 | 128.713 | 0.777 | 0.0 | 14.703 | 0.874 | 34.34 |
| 8.80 | 15.703 | 0.122 | 5.58 | 1.1 | 0.0 | 128.713 | 0.777 | 0.0 | 14.703 | 0.874 | 34.34 |
| 8.81 | 15.703 | 0.112 | 5.58 | 1.1 | 0.0 | 140.205 | 0.713 | 0.0 | 14.703 | 0.803 | 33.56 |
| 8.82 | 15.703 | 0.112 | 5.60 | 1.1 | 0.0 | 140.205 | 0.713 | 0.0 | 14.703 | 0.803 | 33.56 |
| 8.83 | 15.805 | 0.102 | 5.60 | 1.1 | 0.0 | 154.951 | 0.645 | 0.0 | 14.805 | 0.726 | 32.55 |
| 8.84 | 15.805 | 0.102 | 5.61 | 1.1 | 0.0 | 154.951 | 0.645 | 0.0 | 14.805 | 0.726 | 32.55 |
| 8.85 | 15.703 | 0.102 | 5.61 | 1.1 | 0.0 | 153.951 | 0.65 | 0.0 | 14.703 | 0.732 | 32.74 |
| 8.86 | 15.601 | 0.102 | 5.61 | 1.1 | 0.0 | 152.951 | 0.654 | 0.0 | 14.601 | 0.737 | 32.93 |
| 8.87 | 15.499 | 0.102 | 5.61 | 1.1 | 0.0 | 151.951 | 0.658 | 0.0 | 14.499 | 0.743 | 33.13 |
| 8.88 | 15.499 | 0.102 | 5.61 | 1.1 | 0.0 | 151.951 | 0.658 | 0.0 | 14.499 | 0.743 | 33.13 |
| 8.89 | 15.499 | 0.102 | 5.61 | 1.1 | 0.0 | 151.951 | 0.658 | 0.0 | 14.499 | 0.743 | 33.13 |
| 8.90 | 15.907 | 0.071 | 6.09 | 1.1 | 0.0 | 224.042 | 0.446 | 0.0 | 14.907 | 0.502 | 29.55 |
| 8.91 | 15.907 | 0.071 | 6.10 | 1.1 | 0.0 | 224.042 | 0.446 | 0.0 | 14.907 | 0.502 | 29.55 |
| 8.92 | 15.907 | 0.082 | 6.11 | 1.1 | 0.0 | 193.988 | 0.515 | 0.0 | 14.907 | 0.58 | 30.61 |
| 8.93 | 15.805 | 0.092 | 6.10 | 1.1 | 0.0 | 171.793 | 0.582 | 0.0 | 14.805 | 0.656 | 31.7 |
| 8.94 | 15.703 | 0.102 | 6.11 | 1.1 | 0.0 | 153.951 | 0.65 | 0.0 | 14.703 | 0.732 | 32.75 |
| 8.95 | 15.601 | 0.102 | 6.11 | 1.1 | 0.0 | 152.951 | 0.654 | 0.0 | 14.601 | 0.738 | 32.94 |
| 8.96 | 15.499 | 0.102 | 6.12 | 1.1 | 0.0 | 151.951 | 0.658 | 0.0 | 14.499 | 0.744 | 33.14 |
| 8.97 | 15.499 | 0.102 | 6.12 | 1.1 | 0.0 | 151.951 | 0.658 | 0.0 | 14.499 | 0.744 | 33.14 |
| 8.98 | 15.499 | 0.102 | 6.13 | 1.1 | 0.0 | 151.951 | 0.658 | 0.0 | 14.499 | 0.744 | 33.14 |
| 8.99 | 15.499 | 0.102 | 6.13 | 1.1 | 0.0 | 151.951 | 0.658 | 0.0 | 14.499 | 0.744 | 33.14 |
| 9.00 | 15.499 | 0.112 | 6.14 | 1.1 | 0.0 | 138.384 | 0.723 | 0.0 | 14.499 | 0.817 | 33.97 |
| 9.01 | 15.499 | 0.112 | 6.14 | 1.1 | 0.0 | 138.384 | 0.723 | 0.0 | 14.499 | 0.817 | 33.98 |
| 9.02 | 15.499 | 0.112 | 6.14 | 1.1 | 0.0 | 138.384 | 0.723 | 0.0 | 14.499 | 0.817 | 33.98 |
| 9.03 | 15.397 | 0.122 | 6.14 | 1.1 | 0.0 | 126.205 | 0.792 | 0.0 | 14.397 | 0.897 | 34.98 |
| 9.04 | 15.295 | 0.122 | 6.14 | 1.1 | 0.0 | 125.369 | 0.798 | 0.0 | 14.295 | 0.904 | 35.18 |
| 9.05 | 15.194 | 0.122 | 6.15 | 1.1 | 0.0 | 124.541 | 0.803 | 0.0 | 14.194 | 0.911 | 35.39 |
| 9.06 | 15.194 | 0.112 | 6.15 | 1.1 | 0.0 | 135.661 | 0.737 | 0.0 | 14.194 | 0.836 | 34.59 |
| 9.07 | 15.092 | 0.112 | 6.16 | 1.1 | 0.0 | 134.75 | 0.742 | 0.0 | 14.092 | 0.843 | 34.79 |
| 9.08 | 15.194 | 0.112 | 6.16 | 1.1 | 0.0 | 135.661 | 0.737 | 0.0 | 14.194 | 0.836 | 34.59 |
| 9.09 | 15.092 | 0.112 | 6.17 | 1.1 | 0.0 | 134.75 | 0.742 | 0.0 | 14.092 | 0.843 | 34.8 |
| 9.10 | 15.092 | 0.102 | 6.18 | 1.1 | 0.0 | 147.961 | 0.676 | 0.0 | 14.092 | 0.768 | 33.95 |
| 9.11 | 15.092 | 0.102 | 6.18 | 1.1 | 0.0 | 147.961 | 0.676 | 0.0 | 14.092 | 0.768 | 33.95 |
| 9.12 | 15.092 | 0.102 | 6.19 | 1.1 | 0.0 | 147.961 | 0.676 | 0.0 | 14.092 | 0.768 | 33.95 |
| 9.13 | 15.092 | 0.102 | 6.20 | 1.1 | 0.0 | 147.961 | 0.676 | 0.0 | 14.092 | 0.768 | 33.95 |
| 9.14 | 15.092 | 0.102 | 6.21 | 1.1 | 0.0 | 147.961 | 0.676 | 0.0 | 14.092 | 0.768 | 33.95 |
| 9.15 | 15.092 | 0.102 | 6.21 | 1.1 | 0.0 | 147.961 | 0.676 | 0.0 | 14.092 | 0.768 | 33.95 |
| 9.16 | 15.092 | 0.092 | 6.22 | 1.1 | 0.0 | 164.043 | 0.61 | 0.0 | 14.092 | 0.693 | 33.06 |
| 9.17 | 15.194 | 0.092 | 6.22 | 1.1 | 0.0 | 165.152 | 0.606 | 0.0 | 14.194 | 0.688 | 32.86 |
| 9.18 | 15.194 | 0.092 | 6.23 | 1.1 | 0.0 | 165.152 | 0.606 | 0.0 | 14.194 | 0.688 | 32.87 |
| 9.19 | 15.295 | 0.092 | 6.25 | 1.1 | 0.0 | 166.25 | 0.602 | 0.0 | 14.295 | 0.683 | 32.67 |
| 9.20 | 15.295 | 0.092 | 6.25 | 1.1 | 0.0 | 166.25 | 0.602 | 0.0 | 14.295 | 0.683 | 32.67 |
| 9.21 | 15.397 | 0.092 | 6.27 | 1.1 | 0.0 | 167.359 | 0.598 | 0.0 | 14.397 | 0.678 | 32.48 |
| 9.22 | 15.601 | 0.092 | 6.28 | 1.1 | 0.0 | 169.576 | 0.59 | 0.0 | 14.601 | 0.668 | 32.1 |
| 9.23 | 15.703 | 0.092 | 6.28 | 1.1 | 0.0 | 170.685 | 0.586 | 0.0 | 14.703 | 0.663 | 31.92 |
| 9.24 | 15.805 | 0.092 | 6.29 | 1.1 | 0.0 | 171.793 | 0.582 | 0.0 | 14.805 | 0.659 | 31.73 |
| 9.25 | 15.907 | 0.092 | 6.30 | 1.1 | 0.0 | 172.902 | 0.578 | 0.0 | 14.907 | 0.654 | 31.55 |
| 9.26 | 16.009 | 0.092 | 6.30 | 1.1 | 0.0 | 174.011 | 0.575 | 0.0 | 15.009 | 0.649 | 31.37 |
| 9.27 | 16.009 | 0.102 | 6.30 | 1.1 | 0.0 | 156.951 | 0.637 | 0.0 | 15.009 | 0.72 | 32.23 |
| 9.28 | 16.111 | 0.102 | 6.31 | 1.1 | 0.0 | 157.951 | 0.633 | 0.0 | 15.111 | 0.715 | 32.05 |
| 9.29 | 16.111 | 0.112 | 6.32 | 1.1 | 0.0 | 143.848 | 0.695 | 0.0 | 15.111 | 0.785 | 32.86 |
| 9.30 | 16.111 | 0.112 | 6.32 | 1.1 | 0.0 | 143.848 | 0.695 | 0.0 | 15.111 | 0.785 | 32.86 |
| 9.31 | 16.111 | 0.122 | 6.32 | 1.1 | 0.0 | 132.057 | 0.757 | 0.0 | 15.111 | 0.855 | 33.63 |
| 9.32 | 16.213 | 0.122 | 6.33 | 1.1 | 0.0 | 132.893 | 0.752 | 0.0 | 15.213 | 0.849 | 33.45 |
| 9.33 | 16.213 | 0.122 | 6.33 | 1.1 | 0.0 | 132.893 | 0.752 | 0.0 | 15.213 | 0.85 | 33.45 |
| 9.34 | 16.111 | 0.133 | 6.34 | 1.1 | 0.0 | 121.135 | 0.826 | 0.0 | 15.111 | 0.933 | 34.45 |
| 9.35 | 16.213 | 0.133 | 6.35 | 1.1 | 0.0 | 121.902 | 0.82 | 0.0 | 15.213 | 0.926 | 34.26 |
| 9.36 | 16.315 | 0.133 | 6.36 | 1.1 | 0.0 | 122.669 | 0.815 | 0.0 | 15.315 | 0.92 | 34.07 |
| 9.37 | 16.315 | 0.133 | 6.37 | 1.1 | 0.0 | 122.669 | 0.815 | 0.0 | 15.315 | 0.92 | 34.07 |

Prova n. 2

| | | | | | | | | | | | |
|-------|--------|-------|------|-----|-----|---------|-------|-----|--------|-------|-------|
| 9.38 | 16.519 | 0.133 | 6.38 | 1.1 | 0.0 | 124.203 | 0.805 | 0.0 | 15.519 | 0.907 | 33.7 |
| 9.39 | 16.723 | 0.133 | 6.40 | 1.1 | 0.0 | 125.737 | 0.795 | 0.0 | 15.723 | 0.895 | 33.33 |
| 9.40 | 16.927 | 0.122 | 6.42 | 1.1 | 0.0 | 138.746 | 0.721 | 0.0 | 15.927 | 0.81 | 32.19 |
| 9.41 | 17.029 | 0.122 | 6.43 | 1.1 | 0.0 | 139.582 | 0.716 | 0.0 | 16.029 | 0.805 | 32.01 |
| 9.42 | 16.927 | 0.122 | 6.43 | 1.1 | 0.0 | 138.746 | 0.721 | 0.0 | 15.927 | 0.81 | 32.19 |
| 9.43 | 16.927 | 0.112 | 6.43 | 1.1 | 0.0 | 151.134 | 0.662 | 0.0 | 15.927 | 0.744 | 31.44 |
| 9.44 | 16.825 | 0.112 | 6.42 | 1.1 | 0.0 | 150.223 | 0.666 | 0.0 | 15.825 | 0.749 | 31.62 |
| 9.45 | 16.621 | 0.112 | 6.42 | 1.1 | 0.0 | 148.402 | 0.674 | 0.0 | 15.621 | 0.76 | 31.97 |
| 9.46 | 16.519 | 0.112 | 6.43 | 1.1 | 0.0 | 147.491 | 0.678 | 0.0 | 15.519 | 0.765 | 32.15 |
| 9.47 | 16.417 | 0.112 | 6.45 | 1.1 | 0.0 | 146.58 | 0.682 | 0.0 | 15.417 | 0.77 | 32.33 |
| 9.48 | 16.519 | 0.102 | 6.45 | 1.1 | 0.0 | 161.951 | 0.617 | 0.0 | 15.519 | 0.697 | 31.35 |
| 9.49 | 16.519 | 0.102 | 6.46 | 1.1 | 0.0 | 161.951 | 0.617 | 0.0 | 15.519 | 0.697 | 31.35 |
| 9.50 | 16.621 | 0.102 | 6.47 | 1.1 | 0.0 | 162.951 | 0.614 | 0.0 | 15.621 | 0.692 | 31.18 |
| 9.51 | 16.621 | 0.092 | 6.49 | 1.1 | 0.0 | 180.663 | 0.554 | 0.0 | 15.621 | 0.624 | 30.35 |
| 9.52 | 16.621 | 0.092 | 6.49 | 1.1 | 0.0 | 180.663 | 0.554 | 0.0 | 15.621 | 0.624 | 30.35 |
| 9.53 | 16.723 | 0.092 | 6.50 | 1.1 | 0.0 | 181.772 | 0.55 | 0.0 | 15.723 | 0.62 | 30.18 |
| 9.54 | 16.723 | 0.092 | 6.51 | 1.1 | 0.0 | 181.772 | 0.55 | 0.0 | 15.723 | 0.62 | 30.18 |
| 9.55 | 16.723 | 0.092 | 6.52 | 1.1 | 0.0 | 181.772 | 0.55 | 0.0 | 15.723 | 0.62 | 30.19 |
| 9.56 | 16.927 | 0.092 | 6.53 | 1.1 | 0.0 | 183.989 | 0.544 | 0.0 | 15.927 | 0.612 | 29.85 |
| 9.57 | 17.029 | 0.092 | 6.55 | 1.1 | 0.0 | 185.098 | 0.54 | 0.0 | 16.029 | 0.608 | 29.69 |
| 9.58 | 17.029 | 0.092 | 6.55 | 1.1 | 0.0 | 185.098 | 0.54 | 0.0 | 16.029 | 0.608 | 29.69 |
| 9.59 | 16.927 | 0.092 | 6.55 | 1.1 | 0.0 | 183.989 | 0.544 | 0.0 | 15.927 | 0.612 | 29.86 |
| 9.60 | 16.927 | 0.092 | 6.55 | 1.1 | 0.0 | 183.989 | 0.544 | 0.0 | 15.927 | 0.612 | 29.86 |
| 9.61 | 16.927 | 0.092 | 6.56 | 1.1 | 0.0 | 183.989 | 0.544 | 0.0 | 15.927 | 0.612 | 29.86 |
| 9.62 | 16.825 | 0.092 | 6.56 | 1.1 | 0.0 | 182.88 | 0.547 | 0.0 | 15.825 | 0.617 | 30.03 |
| 9.63 | 16.723 | 0.092 | 6.57 | 1.1 | 0.0 | 181.772 | 0.55 | 0.0 | 15.723 | 0.621 | 30.19 |
| 9.64 | 16.723 | 0.092 | 6.58 | 1.1 | 0.0 | 181.772 | 0.55 | 0.0 | 15.723 | 0.621 | 30.19 |
| 9.65 | 16.621 | 0.092 | 6.58 | 1.1 | 0.0 | 180.663 | 0.554 | 0.0 | 15.621 | 0.626 | 30.36 |
| 9.66 | 16.519 | 0.092 | 6.58 | 1.1 | 0.0 | 179.554 | 0.557 | 0.0 | 15.519 | 0.63 | 30.54 |
| 9.67 | 16.417 | 0.092 | 6.58 | 1.1 | 0.0 | 178.446 | 0.56 | 0.0 | 15.417 | 0.634 | 30.71 |
| 9.68 | 16.417 | 0.092 | 6.59 | 1.1 | 0.0 | 178.446 | 0.56 | 0.0 | 15.417 | 0.635 | 30.71 |
| 9.69 | 16.417 | 0.092 | 6.59 | 1.1 | 0.0 | 178.446 | 0.56 | 0.0 | 15.417 | 0.635 | 30.71 |
| 9.70 | 16.315 | 0.092 | 6.60 | 1.1 | 0.0 | 177.337 | 0.564 | 0.0 | 15.315 | 0.639 | 30.89 |
| 9.71 | 16.213 | 0.092 | 6.60 | 1.1 | 0.0 | 176.228 | 0.567 | 0.0 | 15.213 | 0.644 | 31.06 |
| 9.72 | 16.111 | 0.092 | 6.61 | 1.1 | 0.0 | 175.12 | 0.571 | 0.0 | 15.111 | 0.649 | 31.24 |
| 9.73 | 16.213 | 0.092 | 6.61 | 1.1 | 0.0 | 176.228 | 0.567 | 0.0 | 15.213 | 0.644 | 31.07 |
| 9.74 | 16.213 | 0.092 | 6.62 | 1.1 | 0.0 | 176.228 | 0.567 | 0.0 | 15.213 | 0.644 | 31.07 |
| 9.75 | 16.111 | 0.092 | 6.64 | 1.1 | 0.0 | 175.12 | 0.571 | 0.0 | 15.111 | 0.649 | 31.25 |
| 9.76 | 16.213 | 0.082 | 6.65 | 1.1 | 0.0 | 197.72 | 0.506 | 0.0 | 15.213 | 0.574 | 30.17 |
| 9.77 | 16.213 | 0.082 | 6.65 | 1.2 | 0.0 | 197.72 | 0.506 | 0.0 | 15.213 | 0.574 | 30.17 |
| 9.78 | 16.213 | 0.082 | 6.65 | 1.2 | 0.0 | 197.72 | 0.506 | 0.0 | 15.213 | 0.574 | 30.17 |
| 9.79 | 16.111 | 0.082 | 6.66 | 1.2 | 0.0 | 196.476 | 0.509 | 0.0 | 15.111 | 0.579 | 30.35 |
| 9.80 | 16.213 | 0.082 | 6.67 | 1.2 | 0.0 | 197.72 | 0.506 | 0.0 | 15.213 | 0.575 | 30.18 |
| 9.81 | 16.315 | 0.082 | 6.69 | 1.1 | 0.0 | 198.963 | 0.503 | 0.0 | 15.315 | 0.571 | 30.01 |
| 9.82 | 16.519 | 0.082 | 6.71 | 1.1 | 0.0 | 201.451 | 0.496 | 0.0 | 15.519 | 0.563 | 29.67 |
| 9.83 | 16.621 | 0.082 | 6.72 | 1.1 | 0.0 | 202.695 | 0.493 | 0.0 | 15.621 | 0.559 | 29.5 |
| 9.84 | 16.723 | 0.082 | 6.73 | 1.1 | 0.0 | 203.939 | 0.49 | 0.0 | 15.723 | 0.555 | 29.34 |
| 9.85 | 16.723 | 0.082 | 6.73 | 1.1 | 0.0 | 203.939 | 0.49 | 0.0 | 15.723 | 0.555 | 29.34 |
| 9.86 | 16.621 | 0.082 | 6.74 | 1.2 | 0.0 | 202.695 | 0.493 | 0.0 | 15.621 | 0.559 | 29.51 |
| 9.87 | 16.621 | 0.082 | 6.74 | 1.2 | 0.0 | 202.695 | 0.493 | 0.0 | 15.621 | 0.559 | 29.51 |
| 9.88 | 16.621 | 0.082 | 6.74 | 1.2 | 0.0 | 202.695 | 0.493 | 0.0 | 15.621 | 0.559 | 29.51 |
| 9.89 | 17.437 | 0.031 | 7.29 | 1.2 | 0.0 | 562.484 | 0.178 | 0.0 | 16.437 | 0.2 | 23.03 |
| 9.90 | 17.233 | 0.051 | 7.30 | 1.2 | 0.0 | 337.902 | 0.296 | 0.0 | 16.233 | 0.334 | 25.56 |
| 9.91 | 17.233 | 0.051 | 7.30 | 1.2 | 0.0 | 337.902 | 0.296 | 0.0 | 16.233 | 0.334 | 25.56 |
| 9.92 | 17.233 | 0.061 | 7.32 | 1.2 | 0.0 | 282.508 | 0.354 | 0.0 | 16.233 | 0.4 | 26.59 |
| 9.93 | 17.335 | 0.061 | 7.34 | 1.2 | 0.0 | 284.18 | 0.352 | 0.0 | 16.335 | 0.397 | 26.44 |
| 9.94 | 17.437 | 0.061 | 7.35 | 1.2 | 0.0 | 285.852 | 0.35 | 0.0 | 16.437 | 0.394 | 26.3 |
| 9.95 | 17.539 | 0.061 | 7.36 | 1.2 | 0.0 | 287.525 | 0.348 | 0.0 | 16.539 | 0.392 | 26.16 |
| 9.96 | 17.539 | 0.071 | 7.35 | 1.2 | 0.0 | 247.028 | 0.405 | 0.0 | 16.539 | 0.456 | 27.11 |
| 9.97 | 17.539 | 0.071 | 7.36 | 1.2 | 0.0 | 247.028 | 0.405 | 0.0 | 16.539 | 0.456 | 27.11 |
| 9.98 | 17.335 | 0.082 | 7.36 | 1.2 | 0.0 | 211.402 | 0.473 | 0.0 | 16.335 | 0.534 | 28.4 |
| 9.99 | 17.233 | 0.082 | 7.36 | 1.2 | 0.0 | 210.159 | 0.476 | 0.0 | 16.233 | 0.551 | 28.74 |
| 10.00 | 17.233 | 0.082 | 7.37 | 1.2 | 0.0 | 210.159 | 0.476 | 0.0 | 16.233 | 0.552 | 28.74 |
| 10.01 | 17.233 | 0.071 | 7.38 | 1.2 | 0.0 | 242.718 | 0.412 | 0.0 | 16.233 | 0.478 | 27.73 |
| 10.02 | 17.233 | 0.071 | 7.39 | 1.2 | 0.0 | 242.718 | 0.412 | 0.0 | 16.233 | 0.478 | 27.73 |
| 10.03 | 17.233 | 0.071 | 7.40 | 1.2 | 0.0 | 242.718 | 0.412 | 0.0 | 16.233 | 0.478 | 27.73 |

Prova n. 2

| | | | | | | | | | | | |
|-------|--------|-------|------|-----|-----|---------|-------|-----|--------|-------|-------|
| 10.04 | 17.335 | 0.061 | 7.41 | 1.2 | 0.0 | 284.18 | 0.352 | 0.0 | 16.335 | 0.408 | 26.61 |
| 10.05 | 17.437 | 0.061 | 7.41 | 1.2 | 0.0 | 285.852 | 0.35 | 0.0 | 16.437 | 0.405 | 26.46 |
| 10.06 | 17.335 | 0.061 | 7.42 | 1.2 | 0.0 | 284.18 | 0.352 | 0.0 | 16.335 | 0.408 | 26.61 |
| 10.07 | 17.131 | 0.061 | 7.43 | 1.2 | 0.0 | 280.836 | 0.356 | 0.0 | 16.131 | 0.414 | 26.91 |
| 10.08 | 17.233 | 0.061 | 7.44 | 1.2 | 0.0 | 282.508 | 0.354 | 0.0 | 16.233 | 0.411 | 26.76 |
| 10.09 | 17.335 | 0.061 | 7.47 | 1.2 | 0.0 | 284.18 | 0.352 | 0.0 | 16.335 | 0.408 | 26.61 |
| 10.10 | 17.641 | 0.061 | 7.50 | 1.2 | 0.0 | 289.197 | 0.346 | 0.0 | 16.641 | 0.4 | 26.18 |
| 10.11 | 17.947 | 0.061 | 7.53 | 1.2 | 0.0 | 294.213 | 0.34 | 0.0 | 16.947 | 0.392 | 25.76 |
| 10.12 | 18.151 | 0.061 | 7.55 | 1.2 | 0.0 | 297.557 | 0.336 | 0.0 | 17.151 | 0.387 | 25.49 |
| 10.13 | 18.457 | 0.061 | 7.58 | 1.2 | 0.0 | 302.574 | 0.33 | 0.0 | 17.457 | 0.38 | 25.09 |
| 10.14 | 18.762 | 0.061 | 7.59 | 1.2 | 0.0 | 307.574 | 0.325 | 0.0 | 17.762 | 0.373 | 24.71 |
| 10.15 | 18.864 | 0.061 | 7.60 | 1.2 | 0.0 | 309.246 | 0.323 | 0.0 | 17.864 | 0.371 | 24.58 |
| 10.16 | 18.864 | 0.061 | 7.59 | 1.2 | 0.0 | 309.246 | 0.323 | 0.0 | 17.864 | 0.371 | 24.58 |
| 10.17 | 18.253 | 0.071 | 7.57 | 1.2 | 0.0 | 257.085 | 0.389 | 0.0 | 17.253 | 0.448 | 26.29 |
| 10.18 | 18.049 | 0.071 | 7.55 | 1.2 | 0.0 | 254.211 | 0.393 | 0.0 | 17.049 | 0.454 | 26.57 |
| 10.19 | 17.845 | 0.071 | 7.55 | 1.2 | 0.0 | 251.338 | 0.398 | 0.0 | 16.845 | 0.46 | 26.86 |
| 10.20 | 17.641 | 0.071 | 7.55 | 1.2 | 0.0 | 248.465 | 0.402 | 0.0 | 16.641 | 0.466 | 27.15 |
| 10.21 | 17.539 | 0.082 | 7.56 | 1.2 | 0.0 | 213.89 | 0.468 | 0.0 | 16.539 | 0.542 | 28.3 |
| 10.22 | 17.641 | 0.071 | 7.58 | 1.2 | 0.0 | 248.465 | 0.402 | 0.0 | 16.641 | 0.466 | 27.15 |
| 10.23 | 17.845 | 0.071 | 7.60 | 1.2 | 0.0 | 251.338 | 0.398 | 0.0 | 16.845 | 0.46 | 26.86 |
| 10.24 | 17.947 | 0.071 | 7.60 | 1.2 | 0.0 | 252.775 | 0.396 | 0.0 | 16.947 | 0.457 | 26.72 |
| 10.25 | 18.049 | 0.071 | 7.60 | 1.2 | 0.0 | 254.211 | 0.393 | 0.0 | 17.049 | 0.454 | 26.58 |
| 10.26 | 17.845 | 0.071 | 7.56 | 1.2 | 0.0 | 251.338 | 0.398 | 0.0 | 16.845 | 0.46 | 26.87 |
| 10.27 | 17.641 | 0.082 | 7.55 | 1.2 | 0.0 | 215.134 | 0.465 | 0.0 | 16.641 | 0.539 | 28.15 |
| 10.28 | 17.539 | 0.082 | 7.54 | 1.2 | 0.0 | 213.89 | 0.468 | 0.0 | 16.539 | 0.543 | 28.31 |
| 10.29 | 17.335 | 0.082 | 7.53 | 1.2 | 0.0 | 211.402 | 0.473 | 0.0 | 16.335 | 0.55 | 28.62 |
| 10.30 | 17.029 | 0.082 | 7.52 | 1.2 | 0.0 | 207.671 | 0.482 | 0.0 | 16.029 | 0.562 | 29.1 |
| 10.31 | 16.927 | 0.082 | 7.52 | 1.2 | 0.0 | 206.427 | 0.484 | 0.0 | 15.927 | 0.566 | 29.26 |
| 10.32 | 16.723 | 0.082 | 7.52 | 1.2 | 0.0 | 203.939 | 0.49 | 0.0 | 15.723 | 0.574 | 29.59 |
| 10.33 | 16.621 | 0.082 | 7.52 | 1.2 | 0.0 | 202.695 | 0.493 | 0.0 | 15.621 | 0.578 | 29.76 |
| 10.34 | 16.621 | 0.071 | 7.54 | 1.3 | 0.0 | 234.099 | 0.427 | 0.0 | 15.621 | 0.501 | 28.71 |
| 10.35 | 16.723 | 0.071 | 7.56 | 1.2 | 0.0 | 235.535 | 0.425 | 0.0 | 15.723 | 0.497 | 28.55 |
| 10.36 | 16.927 | 0.071 | 7.58 | 1.2 | 0.0 | 238.408 | 0.419 | 0.0 | 15.927 | 0.49 | 28.24 |
| 10.37 | 17.029 | 0.071 | 7.60 | 1.2 | 0.0 | 239.845 | 0.417 | 0.0 | 16.029 | 0.487 | 28.08 |
| 10.38 | 17.233 | 0.071 | 7.60 | 1.2 | 0.0 | 242.718 | 0.412 | 0.0 | 16.233 | 0.48 | 27.77 |
| 10.39 | 17.233 | 0.071 | 7.61 | 1.3 | 0.0 | 242.718 | 0.412 | 0.0 | 16.233 | 0.48 | 27.77 |
| 10.40 | 17.233 | 0.071 | 7.62 | 1.3 | 0.0 | 242.718 | 0.412 | 0.0 | 16.233 | 0.481 | 27.77 |
| 10.41 | 17.335 | 0.071 | 7.62 | 1.2 | 0.0 | 244.155 | 0.41 | 0.0 | 16.335 | 0.477 | 27.62 |
| 10.42 | 17.233 | 0.071 | 7.64 | 1.2 | 0.0 | 242.718 | 0.412 | 0.0 | 16.233 | 0.481 | 27.77 |
| 10.43 | 17.437 | 0.071 | 7.65 | 1.2 | 0.0 | 245.592 | 0.407 | 0.0 | 16.437 | 0.474 | 27.47 |
| 10.44 | 17.539 | 0.071 | 7.65 | 1.2 | 0.0 | 247.028 | 0.405 | 0.0 | 16.539 | 0.471 | 27.32 |
| 10.45 | 17.539 | 0.071 | 7.65 | 1.2 | 0.0 | 247.028 | 0.405 | 0.0 | 16.539 | 0.471 | 27.33 |
| 10.46 | 17.539 | 0.071 | 7.65 | 1.2 | 0.0 | 247.028 | 0.405 | 0.0 | 16.539 | 0.471 | 27.33 |
| 10.47 | 17.335 | 0.082 | 7.65 | 1.2 | 0.0 | 211.402 | 0.473 | 0.0 | 16.335 | 0.552 | 28.64 |
| 10.48 | 17.335 | 0.082 | 7.65 | 1.2 | 0.0 | 211.402 | 0.473 | 0.0 | 16.335 | 0.552 | 28.64 |
| 10.49 | 17.233 | 0.082 | 7.65 | 1.2 | 0.0 | 210.159 | 0.476 | 0.0 | 16.233 | 0.556 | 28.8 |
| 10.50 | 17.233 | 0.082 | 7.65 | 1.2 | 0.0 | 210.159 | 0.476 | 0.0 | 16.233 | 0.556 | 28.8 |
| 10.51 | 17.233 | 0.082 | 7.66 | 1.2 | 0.0 | 210.159 | 0.476 | 0.0 | 16.233 | 0.556 | 28.8 |
| 10.52 | 17.233 | 0.092 | 7.67 | 1.2 | 0.0 | 187.315 | 0.534 | 0.0 | 16.233 | 0.624 | 29.67 |
| 10.53 | 17.335 | 0.092 | 7.68 | 1.2 | 0.0 | 188.424 | 0.531 | 0.0 | 16.335 | 0.62 | 29.51 |
| 10.54 | 17.539 | 0.092 | 7.69 | 1.2 | 0.0 | 190.641 | 0.525 | 0.0 | 16.539 | 0.611 | 29.19 |
| 10.55 | 17.641 | 0.092 | 7.69 | 1.2 | 0.0 | 191.75 | 0.522 | 0.0 | 16.641 | 0.607 | 29.04 |
| 10.56 | 17.539 | 0.092 | 7.64 | 1.2 | 0.0 | 190.641 | 0.525 | 0.0 | 16.539 | 0.612 | 29.2 |
| 10.57 | 17.335 | 0.102 | 7.64 | 1.2 | 0.0 | 169.951 | 0.588 | 0.0 | 16.335 | 0.687 | 30.34 |
| 10.58 | 17.233 | 0.102 | 7.64 | 1.2 | 0.0 | 168.951 | 0.592 | 0.0 | 16.233 | 0.692 | 30.5 |
| 10.59 | 17.131 | 0.102 | 7.65 | 1.2 | 0.0 | 167.951 | 0.595 | 0.0 | 16.131 | 0.697 | 30.67 |
| 10.60 | 17.131 | 0.102 | 7.66 | 1.2 | 0.0 | 167.951 | 0.595 | 0.0 | 16.131 | 0.697 | 30.68 |
| 10.61 | 17.131 | 0.102 | 7.67 | 1.2 | 0.0 | 167.951 | 0.595 | 0.0 | 16.131 | 0.697 | 30.68 |
| 10.62 | 17.233 | 0.092 | 7.68 | 1.2 | 0.0 | 187.315 | 0.534 | 0.0 | 16.233 | 0.625 | 29.68 |
| 10.63 | 17.233 | 0.092 | 7.70 | 1.2 | 0.0 | 187.315 | 0.534 | 0.0 | 16.233 | 0.625 | 29.69 |
| 10.64 | 17.335 | 0.092 | 7.72 | 1.2 | 0.0 | 188.424 | 0.531 | 0.0 | 16.335 | 0.621 | 29.52 |
| 10.65 | 17.539 | 0.092 | 7.74 | 1.2 | 0.0 | 190.641 | 0.525 | 0.0 | 16.539 | 0.612 | 29.21 |
| 10.66 | 17.743 | 0.092 | 7.74 | 1.2 | 0.0 | 192.859 | 0.519 | 0.0 | 16.743 | 0.604 | 28.89 |
| 10.67 | 17.743 | 0.092 | 7.76 | 1.2 | 0.0 | 192.859 | 0.519 | 0.0 | 16.743 | 0.604 | 28.89 |
| 10.68 | 17.743 | 0.092 | 7.76 | 1.2 | 0.0 | 192.859 | 0.519 | 0.0 | 16.743 | 0.604 | 28.9 |
| 10.69 | 17.743 | 0.092 | 7.76 | 1.2 | 0.0 | 192.859 | 0.519 | 0.0 | 16.743 | 0.605 | 28.9 |

Prova n. 2

| | | | | | | | | | | | |
|-------|--------|-------|------|-----|-----|---------|-------|-----|--------|-------|-------|
| 10.70 | 17.641 | 0.092 | 7.75 | 1.2 | 0.0 | 191.75 | 0.522 | 0.0 | 16.641 | 0.609 | 29.05 |
| 10.71 | 17.539 | 0.092 | 7.75 | 1.2 | 0.0 | 190.641 | 0.525 | 0.0 | 16.539 | 0.613 | 29.21 |
| 10.72 | 17.335 | 0.092 | 7.72 | 1.2 | 0.0 | 188.424 | 0.531 | 0.0 | 16.335 | 0.622 | 29.53 |
| 10.73 | 17.233 | 0.092 | 7.73 | 1.2 | 0.0 | 187.315 | 0.534 | 0.0 | 16.233 | 0.626 | 29.7 |
| 10.74 | 17.335 | 0.092 | 7.74 | 1.2 | 0.0 | 188.424 | 0.531 | 0.0 | 16.335 | 0.622 | 29.54 |
| 10.75 | 17.335 | 0.092 | 7.77 | 1.2 | 0.0 | 188.424 | 0.531 | 0.0 | 16.335 | 0.622 | 29.54 |
| 10.76 | 17.641 | 0.082 | 7.78 | 1.2 | 0.0 | 215.134 | 0.465 | 0.0 | 16.641 | 0.543 | 28.21 |
| 10.77 | 17.947 | 0.082 | 7.81 | 1.2 | 0.0 | 218.866 | 0.457 | 0.0 | 16.947 | 0.532 | 27.76 |
| 10.78 | 18.049 | 0.082 | 7.82 | 1.2 | 0.0 | 220.11 | 0.454 | 0.0 | 17.049 | 0.529 | 27.61 |
| 10.79 | 18.151 | 0.082 | 7.81 | 1.2 | 0.0 | 221.354 | 0.452 | 0.0 | 17.151 | 0.526 | 27.46 |
| 10.80 | 18.049 | 0.092 | 7.78 | 1.2 | 0.0 | 196.185 | 0.51 | 0.0 | 17.049 | 0.594 | 28.45 |
| 10.81 | 17.845 | 0.092 | 7.65 | 1.2 | 0.0 | 193.967 | 0.516 | 0.0 | 16.845 | 0.602 | 28.76 |
| 10.82 | 17.539 | 0.092 | 7.73 | 1.2 | 0.0 | 190.641 | 0.525 | 0.0 | 16.539 | 0.614 | 29.23 |
| 10.83 | 17.437 | 0.092 | 7.73 | 1.2 | 0.0 | 189.533 | 0.528 | 0.0 | 16.437 | 0.618 | 29.39 |
| 10.84 | 17.335 | 0.092 | 7.74 | 1.2 | 0.0 | 188.424 | 0.531 | 0.0 | 16.335 | 0.623 | 29.55 |
| 10.85 | 17.335 | 0.092 | 7.77 | 1.2 | 0.0 | 188.424 | 0.531 | 0.0 | 16.335 | 0.623 | 29.55 |
| 10.86 | 17.641 | 0.092 | 7.78 | 1.2 | 0.0 | 191.75 | 0.522 | 0.0 | 16.641 | 0.61 | 29.07 |
| 10.87 | 17.641 | 0.092 | 7.78 | 1.2 | 0.0 | 191.75 | 0.522 | 0.0 | 16.641 | 0.61 | 29.07 |
| 10.88 | 17.641 | 0.092 | 7.78 | 1.2 | 0.0 | 191.75 | 0.522 | 0.0 | 16.641 | 0.61 | 29.08 |
| 10.89 | 17.947 | 0.071 | 8.24 | 1.2 | 0.0 | 252.775 | 0.396 | 0.0 | 16.947 | 0.462 | 26.78 |
| 10.90 | 17.845 | 0.082 | 8.24 | 1.2 | 0.0 | 217.622 | 0.46 | 0.0 | 16.845 | 0.537 | 27.92 |
| 10.91 | 17.743 | 0.092 | 8.24 | 1.2 | 0.0 | 192.859 | 0.519 | 0.0 | 16.743 | 0.607 | 28.92 |
| 10.92 | 17.743 | 0.102 | 8.24 | 1.2 | 0.0 | 173.951 | 0.575 | 0.0 | 16.743 | 0.673 | 29.73 |
| 10.93 | 17.641 | 0.102 | 8.25 | 1.2 | 0.0 | 172.951 | 0.578 | 0.0 | 16.641 | 0.677 | 29.89 |
| 10.94 | 17.641 | 0.112 | 8.25 | 1.2 | 0.0 | 157.509 | 0.635 | 0.0 | 16.641 | 0.744 | 30.67 |
| 10.95 | 17.539 | 0.102 | 8.25 | 1.2 | 0.0 | 171.951 | 0.582 | 0.0 | 16.539 | 0.682 | 30.06 |
| 10.96 | 17.641 | 0.102 | 8.25 | 1.3 | 0.0 | 172.951 | 0.578 | 0.0 | 16.641 | 0.678 | 29.9 |
| 10.97 | 17.641 | 0.102 | 8.25 | 1.2 | 0.0 | 172.951 | 0.578 | 0.0 | 16.641 | 0.678 | 29.9 |
| 10.98 | 17.641 | 0.112 | 8.24 | 1.3 | 0.0 | 157.509 | 0.635 | 0.0 | 16.641 | 0.744 | 30.67 |
| 10.99 | 17.539 | 0.112 | 8.23 | 1.2 | 0.0 | 156.598 | 0.639 | 0.0 | 16.539 | 0.749 | 30.84 |
| 11.00 | 17.335 | 0.112 | 8.23 | 1.2 | 0.0 | 154.777 | 0.646 | 0.0 | 16.335 | 0.76 | 31.18 |
| 11.01 | 17.335 | 0.112 | 8.24 | 1.2 | 0.0 | 154.777 | 0.646 | 0.0 | 16.335 | 0.76 | 31.18 |
| 11.02 | 17.335 | 0.112 | 8.25 | 1.2 | 0.0 | 154.777 | 0.646 | 0.0 | 16.335 | 0.76 | 31.18 |
| 11.03 | 17.437 | 0.112 | 8.26 | 1.2 | 0.0 | 155.688 | 0.642 | 0.0 | 16.437 | 0.755 | 31.01 |
| 11.04 | 17.539 | 0.112 | 8.29 | 1.3 | 0.0 | 156.598 | 0.639 | 0.0 | 16.539 | 0.75 | 30.85 |
| 11.05 | 17.641 | 0.112 | 8.31 | 1.2 | 0.0 | 157.509 | 0.635 | 0.0 | 16.641 | 0.745 | 30.68 |
| 11.06 | 17.641 | 0.102 | 8.31 | 1.3 | 0.0 | 172.951 | 0.578 | 0.0 | 16.641 | 0.679 | 29.91 |
| 11.07 | 17.743 | 0.102 | 8.33 | 1.3 | 0.0 | 173.951 | 0.575 | 0.0 | 16.743 | 0.674 | 29.75 |
| 11.08 | 17.641 | 0.102 | 8.34 | 1.3 | 0.0 | 172.951 | 0.578 | 0.0 | 16.641 | 0.679 | 29.91 |
| 11.09 | 17.641 | 0.102 | 8.34 | 1.3 | 0.0 | 172.951 | 0.578 | 0.0 | 16.641 | 0.679 | 29.91 |
| 11.10 | 17.641 | 0.102 | 8.36 | 1.3 | 0.0 | 172.951 | 0.578 | 0.0 | 16.641 | 0.679 | 29.92 |
| 11.11 | 17.539 | 0.102 | 8.36 | 1.3 | 0.0 | 171.951 | 0.582 | 0.0 | 16.539 | 0.684 | 30.08 |
| 11.12 | 17.335 | 0.102 | 8.35 | 1.3 | 0.0 | 169.951 | 0.588 | 0.0 | 16.335 | 0.693 | 30.41 |
| 11.13 | 17.233 | 0.102 | 8.35 | 1.3 | 0.0 | 168.951 | 0.592 | 0.0 | 16.233 | 0.698 | 30.58 |
| 11.14 | 17.029 | 0.102 | 8.36 | 1.3 | 0.0 | 166.951 | 0.599 | 0.0 | 16.029 | 0.708 | 30.92 |
| 11.15 | 16.825 | 0.092 | 8.37 | 1.3 | 0.0 | 182.88 | 0.547 | 0.0 | 15.825 | 0.648 | 30.42 |
| 11.16 | 16.723 | 0.092 | 8.36 | 1.3 | 0.0 | 181.772 | 0.55 | 0.0 | 15.723 | 0.653 | 30.59 |
| 11.17 | 16.723 | 0.082 | 8.37 | 1.3 | 0.0 | 203.939 | 0.49 | 0.0 | 15.723 | 0.582 | 29.7 |
| 11.18 | 16.825 | 0.082 | 8.41 | 1.3 | 0.0 | 205.183 | 0.487 | 0.0 | 15.825 | 0.578 | 29.53 |
| 11.19 | 16.825 | 0.092 | 8.44 | 1.2 | 0.0 | 182.88 | 0.547 | 0.0 | 15.825 | 0.649 | 30.42 |
| 11.20 | 16.825 | 0.092 | 8.43 | 1.2 | 0.0 | 182.88 | 0.547 | 0.0 | 15.825 | 0.649 | 30.42 |
| 11.21 | 16.825 | 0.082 | 8.43 | 1.3 | 0.0 | 205.183 | 0.487 | 0.0 | 15.825 | 0.578 | 29.53 |
| 11.22 | 16.825 | 0.082 | 8.44 | 1.2 | 0.0 | 205.183 | 0.487 | 0.0 | 15.825 | 0.578 | 29.53 |
| 11.23 | 16.723 | 0.082 | 8.43 | 1.2 | 0.0 | 203.939 | 0.49 | 0.0 | 15.723 | 0.583 | 29.7 |
| 11.24 | 16.621 | 0.082 | 8.42 | 1.3 | 0.0 | 202.695 | 0.493 | 0.0 | 15.621 | 0.587 | 29.87 |
| 11.25 | 16.417 | 0.082 | 8.43 | 1.2 | 0.0 | 200.207 | 0.499 | 0.0 | 15.417 | 0.596 | 30.22 |
| 11.26 | 16.621 | 0.082 | 8.45 | 1.3 | 0.0 | 202.695 | 0.493 | 0.0 | 15.621 | 0.587 | 29.88 |
| 11.27 | 16.621 | 0.082 | 8.46 | 1.3 | 0.0 | 202.695 | 0.493 | 0.0 | 15.621 | 0.587 | 29.88 |
| 11.28 | 17.131 | 0.092 | 8.50 | 1.3 | 0.0 | 186.207 | 0.537 | 0.0 | 16.131 | 0.636 | 29.93 |
| 11.29 | 17.539 | 0.092 | 8.49 | 1.3 | 0.0 | 190.641 | 0.525 | 0.0 | 16.539 | 0.619 | 29.28 |
| 11.30 | 16.927 | 0.092 | 8.45 | 1.3 | 0.0 | 183.989 | 0.544 | 0.0 | 15.927 | 0.645 | 30.27 |
| 11.31 | 16.621 | 0.102 | 8.49 | 1.3 | 0.0 | 162.951 | 0.614 | 0.0 | 15.621 | 0.731 | 31.64 |
| 11.32 | 16.723 | 0.092 | 8.54 | 1.3 | 0.0 | 181.772 | 0.55 | 0.0 | 15.723 | 0.655 | 30.61 |
| 11.33 | 17.233 | 0.082 | 8.58 | 1.3 | 0.0 | 210.159 | 0.476 | 0.0 | 16.233 | 0.563 | 28.9 |
| 11.34 | 17.335 | 0.082 | 8.59 | 1.3 | 0.0 | 211.402 | 0.473 | 0.0 | 16.335 | 0.559 | 28.74 |
| 11.35 | 17.539 | 0.092 | 8.60 | 1.3 | 0.0 | 190.641 | 0.525 | 0.0 | 16.539 | 0.619 | 29.29 |

Prova n. 2

| | | | | | | | | | | | |
|-------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|-------|
| 11.36 | 17.641 | 0.082 | 8.62 | 1.3 | 0.0 | 215.134 | 0.465 | 0.0 | 16.641 | 0.548 | 28.27 |
| 11.37 | 17.743 | 0.092 | 8.63 | 1.3 | 0.0 | 192.859 | 0.519 | 0.0 | 16.743 | 0.611 | 28.98 |
| 11.38 | 17.845 | 0.092 | 8.63 | 1.3 | 0.0 | 193.967 | 0.516 | 0.0 | 16.845 | 0.607 | 28.82 |
| 11.39 | 17.845 | 0.092 | 8.63 | 1.3 | 0.0 | 193.967 | 0.516 | 0.0 | 16.845 | 0.607 | 28.82 |
| 11.40 | 17.845 | 0.092 | 8.63 | 1.3 | 0.0 | 193.967 | 0.516 | 0.0 | 16.845 | 0.607 | 28.82 |
| 11.41 | 17.845 | 0.092 | 8.63 | 1.3 | 0.0 | 193.967 | 0.516 | 0.0 | 16.845 | 0.607 | 28.83 |
| 11.42 | 17.539 | 0.102 | 8.59 | 1.3 | 0.0 | 171.951 | 0.582 | 0.0 | 16.539 | 0.687 | 30.12 |
| 11.43 | 17.233 | 0.102 | 8.53 | 1.3 | 0.0 | 168.951 | 0.592 | 0.0 | 16.233 | 0.702 | 30.62 |
| 11.44 | 16.519 | 0.102 | 8.49 | 1.3 | 0.0 | 161.951 | 0.617 | 0.0 | 15.519 | 0.738 | 31.84 |
| 11.45 | 17.131 | 0.092 | 8.61 | 1.3 | 0.0 | 186.207 | 0.537 | 0.0 | 16.131 | 0.638 | 29.95 |
| 11.46 | 17.539 | 0.092 | 8.66 | 1.3 | 0.0 | 190.641 | 0.525 | 0.0 | 16.539 | 0.62 | 29.3 |
| 11.47 | 17.845 | 0.092 | 8.67 | 1.3 | 0.0 | 193.967 | 0.516 | 0.0 | 16.845 | 0.608 | 28.83 |
| 11.48 | 17.233 | 0.102 | 8.33 | 1.3 | 0.0 | 168.951 | 0.592 | 0.0 | 16.233 | 0.702 | 30.62 |
| 11.49 | 17.335 | 0.092 | 8.50 | 1.3 | 0.0 | 188.424 | 0.531 | 0.0 | 16.335 | 0.629 | 29.63 |
| 11.50 | 17.743 | 0.092 | 8.56 | 1.3 | 0.0 | 192.859 | 0.519 | 0.0 | 16.743 | 0.612 | 28.99 |
| 11.51 | 17.743 | 0.102 | 8.59 | 1.3 | 0.0 | 173.951 | 0.575 | 0.0 | 16.743 | 0.679 | 29.81 |
| 11.52 | 17.743 | 0.102 | 8.61 | 1.3 | 0.0 | 173.951 | 0.575 | 0.0 | 16.743 | 0.679 | 29.81 |
| 11.53 | 17.845 | 0.092 | 8.62 | 1.3 | 0.0 | 193.967 | 0.516 | 0.0 | 16.845 | 0.608 | 28.84 |
| 11.54 | 17.845 | 0.092 | 8.64 | 1.3 | 0.0 | 193.967 | 0.516 | 0.0 | 16.845 | 0.608 | 28.84 |
| 11.55 | 17.845 | 0.092 | 8.65 | 1.3 | 0.0 | 193.967 | 0.516 | 0.0 | 16.845 | 0.608 | 28.84 |
| 11.56 | 17.845 | 0.092 | 8.67 | 1.3 | 0.0 | 193.967 | 0.516 | 0.0 | 16.845 | 0.609 | 28.84 |
| 11.57 | 17.947 | 0.092 | 8.68 | 1.3 | 0.0 | 195.076 | 0.513 | 0.0 | 16.947 | 0.605 | 28.69 |
| 11.58 | 17.947 | 0.092 | 8.70 | 1.3 | 0.0 | 195.076 | 0.513 | 0.0 | 16.947 | 0.605 | 28.69 |
| 11.59 | 17.947 | 0.082 | 8.71 | 1.3 | 0.0 | 218.866 | 0.457 | 0.0 | 16.947 | 0.539 | 27.84 |
| 11.60 | 18.049 | 0.092 | 8.75 | 1.3 | 0.0 | 196.185 | 0.51 | 0.0 | 17.049 | 0.601 | 28.54 |
| 11.61 | 18.049 | 0.092 | 8.76 | 1.3 | 0.0 | 196.185 | 0.51 | 0.0 | 17.049 | 0.601 | 28.54 |
| 11.62 | 18.049 | 0.092 | 8.77 | 1.3 | 0.0 | 196.185 | 0.51 | 0.0 | 17.049 | 0.601 | 28.54 |
| 11.63 | 18.049 | 0.092 | 8.79 | 1.3 | 0.0 | 196.185 | 0.51 | 0.0 | 17.049 | 0.601 | 28.54 |
| 11.64 | 18.049 | 0.092 | 8.80 | 1.3 | 0.0 | 196.185 | 0.51 | 0.0 | 17.049 | 0.601 | 28.55 |
| 11.65 | 18.049 | 0.082 | 8.81 | 1.3 | 0.0 | 220.11 | 0.454 | 0.0 | 17.049 | 0.536 | 27.7 |
| 11.66 | 18.151 | 0.082 | 8.83 | 1.3 | 0.0 | 221.354 | 0.452 | 0.0 | 17.151 | 0.532 | 27.56 |
| 11.67 | 18.151 | 0.082 | 8.83 | 1.3 | 0.0 | 221.354 | 0.452 | 0.0 | 17.151 | 0.533 | 27.56 |
| 11.68 | 18.151 | 0.082 | 8.84 | 1.3 | 0.0 | 221.354 | 0.452 | 0.0 | 17.151 | 0.533 | 27.56 |
| 11.69 | 18.049 | 0.092 | 8.85 | 1.3 | 0.0 | 196.185 | 0.51 | 0.0 | 17.049 | 0.602 | 28.55 |
| 11.70 | 18.151 | 0.082 | 8.89 | 1.3 | 0.0 | 221.354 | 0.452 | 0.0 | 17.151 | 0.533 | 27.56 |
| 11.71 | 18.151 | 0.092 | 8.90 | 1.3 | 0.0 | 197.293 | 0.507 | 0.0 | 17.151 | 0.598 | 28.4 |
| 11.72 | 18.253 | 0.092 | 8.92 | 1.3 | 0.0 | 198.402 | 0.504 | 0.0 | 17.253 | 0.594 | 28.25 |
| 11.73 | 18.355 | 0.092 | 8.94 | 1.3 | 0.0 | 199.511 | 0.501 | 0.0 | 17.355 | 0.59 | 28.11 |
| 11.74 | 18.355 | 0.092 | 8.96 | 1.3 | 0.0 | 199.511 | 0.501 | 0.0 | 17.355 | 0.59 | 28.11 |
| 11.75 | 18.355 | 0.092 | 8.96 | 1.3 | 0.0 | 199.511 | 0.501 | 0.0 | 17.355 | 0.59 | 28.11 |
| 11.76 | 18.457 | 0.092 | 8.97 | 1.3 | 0.0 | 200.62 | 0.498 | 0.0 | 17.457 | 0.587 | 27.96 |
| 11.77 | 18.457 | 0.092 | 8.99 | 1.3 | 0.0 | 200.62 | 0.498 | 0.0 | 17.457 | 0.587 | 27.96 |
| 11.78 | 18.559 | 0.092 | 9.01 | 1.3 | 0.0 | 201.728 | 0.496 | 0.0 | 17.559 | 0.583 | 27.82 |
| 11.79 | 18.661 | 0.092 | 9.04 | 1.3 | 0.0 | 202.837 | 0.493 | 0.0 | 17.661 | 0.579 | 27.68 |
| 11.80 | 18.762 | 0.092 | 9.06 | 1.3 | 0.0 | 203.935 | 0.49 | 0.0 | 17.762 | 0.576 | 27.54 |
| 11.81 | 18.762 | 0.092 | 9.07 | 1.3 | 0.0 | 203.935 | 0.49 | 0.0 | 17.762 | 0.576 | 27.54 |
| 11.82 | 18.661 | 0.092 | 9.07 | 1.3 | 0.0 | 202.837 | 0.493 | 0.0 | 17.661 | 0.58 | 27.68 |
| 11.83 | 18.559 | 0.092 | 9.07 | 1.3 | 0.0 | 201.728 | 0.496 | 0.0 | 17.559 | 0.583 | 27.83 |
| 11.84 | 18.355 | 0.102 | 9.07 | 1.3 | 0.0 | 179.951 | 0.556 | 0.0 | 17.355 | 0.655 | 28.91 |
| 11.85 | 18.355 | 0.092 | 9.09 | 1.3 | 0.0 | 199.511 | 0.501 | 0.0 | 17.355 | 0.591 | 28.12 |
| 11.86 | 18.355 | 0.092 | 9.09 | 1.3 | 0.0 | 199.511 | 0.501 | 0.0 | 17.355 | 0.591 | 28.12 |
| 11.87 | 18.355 | 0.092 | 9.09 | 1.3 | 0.0 | 199.511 | 0.501 | 0.0 | 17.355 | 0.591 | 28.12 |
| 11.88 | 19.068 | 0.051 | 9.93 | 1.3 | 0.0 | 373.882 | 0.267 | 0.0 | 18.068 | 0.314 | 23.5 |
| 11.89 | 18.966 | 0.061 | 9.95 | 1.3 | 0.0 | 310.918 | 0.322 | 0.0 | 17.966 | 0.377 | 24.59 |
| 11.90 | 18.864 | 0.061 | 9.97 | 1.3 | 0.0 | 309.246 | 0.323 | 0.0 | 17.864 | 0.38 | 24.72 |
| 11.91 | 18.864 | 0.061 | 9.99 | 1.3 | 0.0 | 309.246 | 0.323 | 0.0 | 17.864 | 0.38 | 24.72 |
| 11.92 | 18.966 | 0.061 | 10.01 | 1.3 | 0.0 | 310.918 | 0.322 | 0.0 | 17.966 | 0.378 | 24.6 |
| 11.93 | 18.966 | 0.061 | 10.03 | 1.3 | 0.0 | 310.918 | 0.322 | 0.0 | 17.966 | 0.378 | 24.6 |
| 11.94 | 19.068 | 0.061 | 10.04 | 1.2 | 0.0 | 312.59 | 0.32 | 0.0 | 18.068 | 0.375 | 24.47 |
| 11.95 | 19.068 | 0.061 | 10.04 | 1.2 | 0.0 | 312.59 | 0.32 | 0.0 | 18.068 | 0.375 | 24.47 |
| 11.96 | 19.068 | 0.071 | 10.06 | 1.3 | 0.0 | 268.563 | 0.372 | 0.0 | 18.068 | 0.437 | 25.38 |
| 11.97 | 19.17 | 0.071 | 10.08 | 1.2 | 0.0 | 270.0 | 0.37 | 0.0 | 18.17 | 0.434 | 25.25 |
| 11.98 | 19.374 | 0.071 | 10.11 | 1.2 | 0.0 | 272.873 | 0.366 | 0.0 | 18.374 | 0.429 | 25 |
| 11.99 | 19.476 | 0.082 | 10.14 | 1.2 | 0.0 | 237.512 | 0.421 | 0.0 | 18.476 | 0.493 | 25.8 |
| 12.00 | 19.68 | 0.082 | 10.14 | 1.3 | 0.0 | 240.0 | 0.417 | 0.0 | 18.68 | 0.487 | 25.54 |
| 12.01 | 19.578 | 0.082 | 10.14 | 1.3 | 0.0 | 238.756 | 0.419 | 0.0 | 18.578 | 0.49 | 25.67 |

Prova n. 2

| | | | | | | | | | | | |
|-------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|-------|
| 12.02 | 19.578 | 0.082 | 10.15 | 1.3 | 0.0 | 238.756 | 0.419 | 0.0 | 18.578 | 0.49 | 25.67 |
| 12.03 | 19.578 | 0.082 | 10.15 | 1.2 | 0.0 | 238.756 | 0.419 | 0.0 | 18.578 | 0.49 | 25.67 |
| 12.04 | 19.476 | 0.082 | 10.15 | 1.2 | 0.0 | 237.512 | 0.421 | 0.0 | 18.476 | 0.493 | 25.8 |
| 12.05 | 19.476 | 0.082 | 10.13 | 1.3 | 0.0 | 237.512 | 0.421 | 0.0 | 18.476 | 0.493 | 25.8 |
| 12.06 | 19.068 | 0.082 | 10.11 | 1.3 | 0.0 | 232.537 | 0.43 | 0.0 | 18.068 | 0.505 | 26.33 |
| 12.07 | 18.966 | 0.082 | 10.13 | 1.2 | 0.0 | 231.293 | 0.432 | 0.0 | 17.966 | 0.509 | 26.47 |
| 12.08 | 19.068 | 0.071 | 10.17 | 1.3 | 0.0 | 268.563 | 0.372 | 0.0 | 18.068 | 0.438 | 25.39 |
| 12.09 | 19.17 | 0.071 | 10.19 | 1.2 | 0.0 | 270.0 | 0.37 | 0.0 | 18.17 | 0.435 | 25.26 |
| 12.10 | 19.17 | 0.071 | 10.21 | 1.3 | 0.0 | 270.0 | 0.37 | 0.0 | 18.17 | 0.435 | 25.27 |
| 12.11 | 19.272 | 0.071 | 10.22 | 1.3 | 0.0 | 271.437 | 0.368 | 0.0 | 18.272 | 0.432 | 25.14 |
| 12.12 | 19.476 | 0.071 | 10.24 | 1.3 | 0.0 | 274.31 | 0.365 | 0.0 | 18.476 | 0.427 | 24.88 |
| 12.13 | 19.578 | 0.071 | 10.23 | 1.3 | 0.0 | 275.746 | 0.363 | 0.0 | 18.578 | 0.425 | 24.76 |
| 12.14 | 19.578 | 0.071 | 10.22 | 1.3 | 0.0 | 275.746 | 0.363 | 0.0 | 18.578 | 0.425 | 24.76 |
| 12.15 | 19.68 | 0.082 | 10.24 | 1.3 | 0.0 | 240.0 | 0.417 | 0.0 | 18.68 | 0.488 | 25.55 |
| 12.16 | 19.68 | 0.082 | 10.22 | 1.3 | 0.0 | 240.0 | 0.417 | 0.0 | 18.68 | 0.488 | 25.56 |
| 12.17 | 19.578 | 0.082 | 10.21 | 1.2 | 0.0 | 238.756 | 0.419 | 0.0 | 18.578 | 0.491 | 25.68 |
| 12.18 | 19.476 | 0.082 | 10.20 | 1.3 | 0.0 | 237.512 | 0.421 | 0.0 | 18.476 | 0.494 | 25.81 |
| 12.19 | 19.374 | 0.092 | 10.18 | 1.3 | 0.0 | 210.587 | 0.475 | 0.0 | 18.374 | 0.558 | 26.75 |
| 12.20 | 19.17 | 0.082 | 10.16 | 1.3 | 0.0 | 233.78 | 0.428 | 0.0 | 18.17 | 0.503 | 26.21 |
| 12.21 | 18.966 | 0.082 | 10.16 | 1.2 | 0.0 | 231.293 | 0.432 | 0.0 | 17.966 | 0.51 | 26.48 |
| 12.22 | 18.864 | 0.082 | 10.17 | 1.3 | 0.0 | 230.049 | 0.435 | 0.0 | 17.864 | 0.513 | 26.62 |
| 12.23 | 18.864 | 0.082 | 10.17 | 1.3 | 0.0 | 230.049 | 0.435 | 0.0 | 17.864 | 0.513 | 26.62 |
| 12.24 | 19.068 | 0.082 | 10.19 | 1.3 | 0.0 | 232.537 | 0.43 | 0.0 | 18.068 | 0.507 | 26.35 |
| 12.25 | 19.17 | 0.082 | 10.20 | 1.3 | 0.0 | 233.78 | 0.428 | 0.0 | 18.17 | 0.504 | 26.22 |
| 12.26 | 19.272 | 0.092 | 10.22 | 1.2 | 0.0 | 209.478 | 0.477 | 0.0 | 18.272 | 0.562 | 26.89 |
| 12.27 | 19.17 | 0.082 | 10.22 | 1.3 | 0.0 | 233.78 | 0.428 | 0.0 | 18.17 | 0.504 | 26.22 |
| 12.28 | 19.068 | 0.092 | 10.22 | 1.3 | 0.0 | 207.261 | 0.482 | 0.0 | 18.068 | 0.569 | 27.17 |
| 12.29 | 18.966 | 0.092 | 10.22 | 1.3 | 0.0 | 206.152 | 0.485 | 0.0 | 17.966 | 0.573 | 27.31 |
| 12.30 | 18.864 | 0.102 | 10.22 | 1.3 | 0.0 | 184.941 | 0.541 | 0.0 | 17.864 | 0.639 | 28.23 |
| 12.31 | 18.762 | 0.102 | 10.22 | 1.2 | 0.0 | 183.941 | 0.544 | 0.0 | 17.762 | 0.643 | 28.37 |
| 12.32 | 18.762 | 0.102 | 10.23 | 1.3 | 0.0 | 183.941 | 0.544 | 0.0 | 17.762 | 0.643 | 28.37 |
| 12.33 | 18.966 | 0.102 | 10.24 | 1.2 | 0.0 | 185.941 | 0.538 | 0.0 | 17.966 | 0.635 | 28.08 |
| 12.34 | 18.762 | 0.102 | 10.17 | 1.3 | 0.0 | 183.941 | 0.544 | 0.0 | 17.762 | 0.643 | 28.38 |
| 12.35 | 18.762 | 0.102 | 10.19 | 1.2 | 0.0 | 183.941 | 0.544 | 0.0 | 17.762 | 0.643 | 28.38 |
| 12.36 | 18.966 | 0.122 | 10.25 | 1.2 | 0.0 | 155.459 | 0.643 | 0.0 | 17.966 | 0.76 | 29.53 |
| 12.37 | 18.966 | 0.122 | 10.28 | 1.2 | 0.0 | 155.459 | 0.643 | 0.0 | 17.966 | 0.76 | 29.53 |
| 12.38 | 19.17 | 0.133 | 10.31 | 1.2 | 0.0 | 144.135 | 0.694 | 0.0 | 18.17 | 0.818 | 29.98 |
| 12.39 | 19.374 | 0.133 | 10.33 | 1.2 | 0.0 | 145.669 | 0.686 | 0.0 | 18.374 | 0.808 | 29.68 |
| 12.40 | 19.68 | 0.143 | 10.54 | 1.2 | 0.0 | 137.622 | 0.727 | 0.0 | 18.68 | 0.853 | 29.87 |
| 12.41 | 21.414 | 0.143 | 9.70 | 1.2 | 0.0 | 149.748 | 0.668 | 0.0 | 20.414 | 0.773 | 27.56 |
| 12.42 | 20.802 | 0.143 | 9.88 | 1.2 | 0.0 | 145.469 | 0.687 | 0.0 | 19.802 | 0.8 | 28.34 |
| 12.43 | 20.7 | 0.153 | 8.57 | 1.3 | 0.0 | 135.294 | 0.739 | 0.0 | 19.7 | 0.861 | 29.06 |
| 12.44 | 20.802 | 0.163 | 7.05 | 1.3 | 0.0 | 127.62 | 0.784 | 0.0 | 19.802 | 0.912 | 29.49 |
| 12.45 | 20.802 | 0.163 | 6.35 | 1.3 | 0.0 | 127.62 | 0.784 | 0.0 | 19.802 | 0.912 | 29.49 |
| 12.46 | 21.312 | 0.184 | 7.32 | 1.2 | 0.0 | 115.826 | 0.863 | 0.0 | 20.312 | 1.001 | 29.93 |
| 12.47 | 23.453 | 0.194 | 7.33 | 1.2 | 0.0 | 120.892 | 0.827 | 0.0 | 22.453 | 0.946 | 27.77 |
| 12.48 | 24.779 | 0.194 | 8.01 | 1.2 | 0.0 | 127.727 | 0.783 | 0.0 | 23.779 | 0.888 | 26.32 |
| 12.49 | 24.473 | 0.194 | 6.39 | 1.2 | 0.0 | 126.149 | 0.793 | 0.0 | 23.473 | 0.901 | 26.65 |
| 12.50 | 23.453 | 0.184 | 3.54 | 1.2 | 0.0 | 127.462 | 0.785 | 0.0 | 22.453 | 0.897 | 27.31 |
| 12.51 | 22.331 | 0.194 | 3.87 | 1.2 | 0.0 | 115.108 | 0.869 | 0.0 | 21.331 | 1.001 | 29.12 |
| 12.52 | 21.414 | 0.224 | 4.92 | 1.3 | 0.0 | 95.598 | 1.046 | 0.0 | 20.414 | 1.213 | 31.73 |
| 12.53 | 21.006 | 0.235 | 5.08 | 1.2 | 0.0 | 89.387 | 1.119 | 0.0 | 20.006 | 1.302 | 32.81 |
| 12.54 | 20.496 | 0.224 | 6.01 | 1.2 | 0.0 | 91.5 | 1.093 | 0.0 | 19.496 | 1.277 | 33.05 |
| 12.55 | 19.374 | 0.255 | 7.03 | 1.2 | 0.0 | 75.976 | 1.316 | 0.0 | 18.374 | 1.553 | 36.27 |
| 12.56 | 19.068 | 0.245 | 7.17 | 1.2 | 0.0 | 77.829 | 1.285 | 0.0 | 18.068 | 1.521 | 36.34 |
| 12.57 | 19.17 | 0.235 | 7.42 | 1.2 | 0.0 | 81.574 | 1.226 | 0.0 | 18.17 | 1.45 | 35.69 |
| 12.58 | 19.068 | 0.224 | 7.49 | 1.2 | 0.0 | 85.125 | 1.175 | 0.0 | 18.068 | 1.391 | 35.32 |
| 12.59 | 19.272 | 0.214 | 7.50 | 1.2 | 0.0 | 90.056 | 1.11 | 0.0 | 18.272 | 1.313 | 34.49 |
| 12.60 | 19.578 | 0.194 | 7.53 | 1.2 | 0.0 | 100.918 | 0.991 | 0.0 | 18.578 | 1.168 | 32.96 |
| 12.61 | 19.782 | 0.184 | 7.56 | 1.2 | 0.0 | 107.511 | 0.93 | 0.0 | 18.782 | 1.095 | 32.12 |
| 12.62 | 20.088 | 0.184 | 7.60 | 1.2 | 0.0 | 109.174 | 0.916 | 0.0 | 19.088 | 1.075 | 31.66 |
| 12.63 | 20.496 | 0.173 | 7.62 | 1.2 | 0.0 | 118.474 | 0.844 | 0.0 | 19.496 | 0.987 | 30.48 |
| 12.64 | 20.598 | 0.184 | 7.66 | 1.2 | 0.0 | 111.946 | 0.893 | 0.0 | 19.598 | 1.044 | 30.93 |
| 12.65 | 20.904 | 0.184 | 7.72 | 1.2 | 0.0 | 113.609 | 0.88 | 0.0 | 19.904 | 1.027 | 30.5 |
| 12.66 | 21.006 | 0.173 | 7.76 | 1.2 | 0.0 | 121.422 | 0.824 | 0.0 | 20.006 | 0.96 | 29.79 |
| 12.67 | 21.006 | 0.184 | 7.79 | 1.2 | 0.0 | 114.163 | 0.876 | 0.0 | 20.006 | 1.021 | 30.37 |

Prova n. 2

| | | | | | | | | | | | |
|-------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|-------|
| 12.68 | 20.904 | 0.184 | 7.85 | 1.2 | 0.0 | 113.609 | 0.88 | 0.0 | 19.904 | 1.027 | 30.51 |
| 12.69 | 20.7 | 0.194 | 7.93 | 1.2 | 0.0 | 106.701 | 0.937 | 0.0 | 19.7 | 1.095 | 31.31 |
| 12.70 | 20.904 | 0.184 | 7.99 | 1.2 | 0.0 | 113.609 | 0.88 | 0.0 | 19.904 | 1.027 | 30.51 |
| 12.71 | 21.108 | 0.184 | 8.08 | 1.2 | 0.0 | 114.717 | 0.872 | 0.0 | 20.108 | 1.016 | 30.23 |
| 12.72 | 21.21 | 0.184 | 8.18 | 1.2 | 0.0 | 115.272 | 0.868 | 0.0 | 20.21 | 1.01 | 30.1 |
| 12.73 | 21.72 | 0.173 | 8.28 | 1.2 | 0.0 | 125.549 | 0.797 | 0.0 | 20.72 | 0.924 | 28.86 |
| 12.74 | 22.535 | 0.173 | 8.84 | 1.2 | 0.0 | 130.26 | 0.768 | 0.0 | 21.535 | 0.886 | 27.86 |
| 12.75 | 23.147 | 0.163 | 9.13 | 1.2 | 0.0 | 142.006 | 0.704 | 0.0 | 22.147 | 0.809 | 26.64 |
| 12.76 | 23.861 | 0.163 | 9.67 | 1.2 | 0.0 | 146.387 | 0.683 | 0.0 | 22.861 | 0.782 | 25.86 |
| 12.77 | 25.289 | 0.163 | 10.05 | 1.2 | 0.0 | 155.147 | 0.645 | 0.0 | 24.289 | 0.732 | 24.41 |
| 12.78 | 24.167 | 0.163 | 10.06 | 1.3 | 0.0 | 148.264 | 0.674 | 0.0 | 23.167 | 0.771 | 25.54 |
| 12.79 | 24.473 | 0.163 | 10.12 | 1.3 | 0.0 | 150.141 | 0.666 | 0.0 | 23.473 | 0.76 | 25.22 |
| 12.80 | 25.391 | 0.143 | 10.19 | 1.2 | 0.0 | 177.559 | 0.563 | 0.0 | 24.391 | 0.639 | 23.33 |
| 12.81 | 25.289 | 0.133 | 10.60 | 1.2 | 0.0 | 190.143 | 0.526 | 0.0 | 24.289 | 0.597 | 22.91 |
| 12.82 | 24.881 | 0.122 | 12.83 | 1.2 | 0.0 | 203.943 | 0.49 | 0.0 | 23.881 | 0.558 | 22.69 |
| 12.83 | 24.473 | 0.112 | 12.93 | 1.2 | 0.0 | 218.509 | 0.458 | 0.0 | 23.473 | 0.522 | 22.5 |
| 12.84 | 24.881 | 0.092 | 12.67 | 1.2 | 0.0 | 270.446 | 0.37 | 0.0 | 23.881 | 0.421 | 20.92 |
| 12.85 | 23.453 | 0.082 | 12.56 | 1.2 | 0.0 | 286.012 | 0.35 | 0.0 | 22.453 | 0.401 | 21.54 |
| 12.86 | 23.453 | 0.082 | 12.56 | 1.2 | 0.0 | 286.012 | 0.35 | 0.0 | 22.453 | 0.402 | 21.54 |
| 12.87 | 23.453 | 0.082 | 12.56 | 1.2 | 0.0 | 286.012 | 0.35 | 0.0 | 22.453 | 0.402 | 21.54 |
| 12.88 | 26.308 | 0.041 | 12.58 | 1.2 | 0.0 | 641.659 | 0.156 | 0.0 | 25.308 | 0.176 | 16.38 |
| 12.89 | 25.594 | 0.051 | 12.48 | 1.2 | 0.0 | 501.843 | 0.199 | 0.0 | 24.594 | 0.226 | 17.58 |
| 12.90 | 24.473 | 0.061 | 12.17 | 1.2 | 0.0 | 401.197 | 0.249 | 0.0 | 23.473 | 0.285 | 19.16 |
| 12.91 | 22.739 | 0.071 | 12.77 | 1.2 | 0.0 | 320.268 | 0.312 | 0.0 | 21.739 | 0.36 | 21.42 |
| 12.92 | 21.924 | 0.071 | 12.99 | 1.2 | 0.0 | 308.789 | 0.324 | 0.0 | 20.924 | 0.376 | 22.22 |
| 12.93 | 21.312 | 0.061 | 13.18 | 1.2 | 0.0 | 349.377 | 0.286 | 0.0 | 20.312 | 0.334 | 22.03 |
| 12.94 | 21.21 | 0.051 | 13.48 | 1.2 | 0.0 | 415.882 | 0.24 | 0.0 | 20.21 | 0.281 | 21.26 |
| 12.95 | 21.108 | 0.051 | 13.34 | 1.2 | 0.0 | 413.882 | 0.242 | 0.0 | 20.108 | 0.282 | 21.36 |
| 12.96 | 21.006 | 0.051 | 12.76 | 1.2 | 0.0 | 411.882 | 0.243 | 0.0 | 20.006 | 0.284 | 21.46 |
| 12.97 | 20.394 | 0.061 | 12.87 | 1.2 | 0.0 | 334.328 | 0.299 | 0.0 | 19.394 | 0.352 | 23.01 |
| 12.98 | 19.782 | 0.061 | 13.00 | 1.2 | 0.0 | 324.295 | 0.308 | 0.0 | 18.782 | 0.365 | 23.7 |
| 12.99 | 19.782 | 0.061 | 13.05 | 1.2 | 0.0 | 324.295 | 0.308 | 0.0 | 18.782 | 0.365 | 23.7 |
| 13.00 | 19.782 | 0.061 | 13.09 | 1.2 | 0.0 | 324.295 | 0.308 | 0.0 | 18.782 | 0.365 | 23.7 |
| 13.01 | 20.088 | 0.061 | 13.13 | 1.2 | 0.0 | 329.311 | 0.304 | 0.0 | 19.088 | 0.358 | 23.35 |
| 13.02 | 20.394 | 0.061 | 13.18 | 1.2 | 0.0 | 334.328 | 0.299 | 0.0 | 19.394 | 0.352 | 23.01 |
| 13.03 | 20.7 | 0.061 | 13.21 | 1.2 | 0.0 | 339.344 | 0.295 | 0.0 | 19.7 | 0.346 | 22.68 |
| 13.04 | 21.108 | 0.071 | 13.24 | 1.2 | 0.0 | 297.296 | 0.336 | 0.0 | 20.108 | 0.394 | 23.08 |
| 13.05 | 22.026 | 0.082 | 13.33 | 1.2 | 0.0 | 268.61 | 0.372 | 0.0 | 21.026 | 0.433 | 22.96 |
| 13.06 | 22.026 | 0.092 | 13.13 | 1.2 | 0.0 | 239.413 | 0.418 | 0.0 | 21.026 | 0.486 | 23.67 |
| 13.07 | 21.822 | 0.102 | 12.78 | 1.2 | 0.0 | 213.941 | 0.467 | 0.0 | 20.822 | 0.544 | 24.58 |
| 13.08 | 22.026 | 0.112 | 12.65 | 1.2 | 0.0 | 196.661 | 0.508 | 0.0 | 21.026 | 0.591 | 25.02 |
| 13.09 | 22.026 | 0.112 | 12.36 | 1.2 | 0.0 | 196.661 | 0.508 | 0.0 | 21.026 | 0.591 | 25.02 |
| 13.10 | 21.72 | 0.122 | 12.18 | 1.2 | 0.0 | 178.033 | 0.562 | 0.0 | 20.72 | 0.655 | 26 |
| 13.11 | 21.618 | 0.122 | 12.34 | 1.2 | 0.0 | 177.197 | 0.564 | 0.0 | 20.618 | 0.658 | 26.12 |
| 13.12 | 22.229 | 0.133 | 12.48 | 1.2 | 0.0 | 167.135 | 0.598 | 0.0 | 21.229 | 0.695 | 26.08 |
| 13.13 | 25.289 | 0.143 | 12.81 | 1.2 | 0.0 | 176.846 | 0.565 | 0.0 | 24.289 | 0.644 | 23.45 |
| 13.14 | 26.41 | 0.133 | 12.64 | 1.2 | 0.0 | 198.571 | 0.504 | 0.0 | 25.41 | 0.571 | 21.94 |
| 13.15 | 26.614 | 0.122 | 12.24 | 1.2 | 0.0 | 218.148 | 0.458 | 0.0 | 25.614 | 0.519 | 21.2 |
| 13.16 | 26.512 | 0.122 | 12.36 | 1.1 | 0.0 | 217.311 | 0.46 | 0.0 | 25.512 | 0.521 | 21.28 |
| 13.17 | 26.104 | 0.122 | 12.38 | 1.1 | 0.0 | 213.967 | 0.467 | 0.0 | 25.104 | 0.53 | 21.63 |
| 13.18 | 25.798 | 0.122 | 12.25 | 1.1 | 0.0 | 211.459 | 0.473 | 0.0 | 24.798 | 0.538 | 21.89 |
| 13.19 | 26.308 | 0.112 | 12.39 | 1.1 | 0.0 | 234.893 | 0.426 | 0.0 | 25.308 | 0.483 | 20.92 |
| 13.20 | 25.594 | 0.102 | 12.43 | 1.1 | 0.0 | 250.922 | 0.399 | 0.0 | 24.594 | 0.454 | 20.94 |
| 13.21 | 26.41 | 0.092 | 11.08 | 1.1 | 0.0 | 287.065 | 0.348 | 0.0 | 25.41 | 0.395 | 19.69 |
| 13.22 | 27.94 | 0.092 | 8.39 | 1.1 | 0.0 | 303.696 | 0.329 | 0.0 | 26.94 | 0.371 | 18.56 |
| 13.23 | 26.41 | 0.102 | 9.74 | 1.1 | 0.0 | 258.922 | 0.386 | 0.0 | 25.41 | 0.438 | 20.27 |
| 13.24 | 25.085 | 0.102 | 10.21 | 1.1 | 0.0 | 245.931 | 0.407 | 0.0 | 24.085 | 0.464 | 21.38 |
| 13.25 | 25.289 | 0.102 | 10.28 | 1.1 | 0.0 | 247.931 | 0.403 | 0.0 | 24.289 | 0.46 | 21.21 |
| 13.26 | 24.779 | 0.092 | 10.05 | 1.1 | 0.0 | 269.337 | 0.371 | 0.0 | 23.779 | 0.425 | 21.04 |
| 13.27 | 23.963 | 0.102 | 10.49 | 1.1 | 0.0 | 234.931 | 0.426 | 0.0 | 22.963 | 0.49 | 22.4 |
| 13.28 | 23.453 | 0.112 | 10.24 | 1.1 | 0.0 | 209.402 | 0.478 | 0.0 | 22.453 | 0.551 | 23.52 |
| 13.29 | 22.433 | 0.122 | 10.23 | 1.1 | 0.0 | 183.877 | 0.544 | 0.0 | 21.433 | 0.632 | 25.21 |
| 13.30 | 22.637 | 0.102 | 10.37 | 1.1 | 0.0 | 221.931 | 0.451 | 0.0 | 21.637 | 0.523 | 23.73 |
| 13.31 | 21.516 | 0.102 | 10.13 | 1.1 | 0.0 | 210.941 | 0.474 | 0.0 | 20.516 | 0.555 | 24.95 |
| 13.32 | 20.394 | 0.102 | 9.92 | 1.1 | 0.0 | 199.941 | 0.5 | 0.0 | 19.394 | 0.591 | 26.29 |
| 13.33 | 19.578 | 0.102 | 10.17 | 1.1 | 0.0 | 191.941 | 0.521 | 0.0 | 18.578 | 0.621 | 27.35 |

Prova n. 2

| | | | | | | | | | | | |
|-------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|-------|
| 13.34 | 19.17 | 0.112 | 10.42 | 1.1 | 0.0 | 171.161 | 0.584 | 0.0 | 18.17 | 0.699 | 28.65 |
| 13.35 | 19.17 | 0.112 | 10.54 | 1.1 | 0.0 | 171.161 | 0.584 | 0.0 | 18.17 | 0.699 | 28.65 |
| 13.36 | 19.272 | 0.122 | 10.72 | 1.1 | 0.0 | 157.967 | 0.633 | 0.0 | 18.272 | 0.757 | 29.21 |
| 13.37 | 19.272 | 0.133 | 10.74 | 1.1 | 0.0 | 144.902 | 0.69 | 0.0 | 18.272 | 0.825 | 29.95 |
| 13.38 | 19.272 | 0.143 | 10.76 | 1.1 | 0.0 | 134.769 | 0.742 | 0.0 | 18.272 | 0.887 | 30.6 |
| 13.39 | 19.272 | 0.153 | 10.76 | 1.1 | 0.0 | 125.961 | 0.794 | 0.0 | 18.272 | 0.949 | 31.22 |
| 13.40 | 19.272 | 0.163 | 10.74 | 1.1 | 0.0 | 118.233 | 0.846 | 0.0 | 18.272 | 1.012 | 31.82 |
| 13.41 | 19.17 | 0.163 | 10.74 | 1.1 | 0.0 | 117.607 | 0.85 | 0.0 | 18.17 | 1.018 | 31.98 |
| 13.42 | 19.17 | 0.163 | 10.73 | 1.1 | 0.0 | 117.607 | 0.85 | 0.0 | 18.17 | 1.018 | 31.99 |
| 13.43 | 19.068 | 0.173 | 10.71 | 1.1 | 0.0 | 110.22 | 0.907 | 0.0 | 18.068 | 1.088 | 32.73 |
| 13.44 | 19.068 | 0.173 | 10.70 | 1.1 | 0.0 | 110.22 | 0.907 | 0.0 | 18.068 | 1.088 | 32.73 |
| 13.45 | 18.966 | 0.184 | 10.69 | 1.1 | 0.0 | 103.076 | 0.97 | 0.0 | 17.966 | 1.165 | 33.53 |
| 13.46 | 18.966 | 0.194 | 10.68 | 1.1 | 0.0 | 97.763 | 1.023 | 0.0 | 17.966 | 1.228 | 34.08 |
| 13.47 | 18.864 | 0.194 | 10.66 | 1.1 | 0.0 | 97.237 | 1.028 | 0.0 | 17.864 | 1.237 | 34.25 |
| 13.48 | 18.864 | 0.204 | 10.64 | 1.1 | 0.0 | 92.471 | 1.081 | 0.0 | 17.864 | 1.3 | 34.79 |
| 13.49 | 18.762 | 0.204 | 10.63 | 1.1 | 0.0 | 91.971 | 1.087 | 0.0 | 17.762 | 1.309 | 34.97 |
| 13.50 | 18.762 | 0.204 | 10.62 | 1.1 | 0.0 | 91.971 | 1.087 | 0.0 | 17.762 | 1.309 | 34.97 |
| 13.51 | 18.559 | 0.204 | 10.62 | 1.1 | 0.0 | 90.975 | 1.099 | 0.0 | 17.559 | 1.327 | 35.32 |
| 13.52 | 18.559 | 0.204 | 10.60 | 1.1 | 0.0 | 90.975 | 1.099 | 0.0 | 17.559 | 1.327 | 35.32 |
| 13.53 | 18.559 | 0.204 | 10.58 | 1.1 | 0.0 | 90.975 | 1.099 | 0.0 | 17.559 | 1.327 | 35.32 |
| 13.54 | 18.457 | 0.204 | 10.58 | 1.1 | 0.0 | 90.475 | 1.105 | 0.0 | 17.457 | 1.336 | 35.5 |
| 13.55 | 18.355 | 0.204 | 10.57 | 1.1 | 0.0 | 89.975 | 1.111 | 0.0 | 17.355 | 1.346 | 35.69 |
| 13.56 | 18.457 | 0.204 | 10.57 | 1.1 | 0.0 | 90.475 | 1.105 | 0.0 | 17.457 | 1.337 | 35.51 |
| 13.57 | 18.457 | 0.204 | 10.57 | 1.1 | 0.0 | 90.475 | 1.105 | 0.0 | 17.457 | 1.337 | 35.51 |
| 13.58 | 18.457 | 0.204 | 10.57 | 1.1 | 0.0 | 90.475 | 1.105 | 0.0 | 17.457 | 1.337 | 35.51 |
| 13.59 | 18.457 | 0.204 | 10.56 | 1.1 | 0.0 | 90.475 | 1.105 | 0.0 | 17.457 | 1.337 | 35.51 |
| 13.60 | 18.457 | 0.204 | 10.55 | 1.1 | 0.0 | 90.475 | 1.105 | 0.0 | 17.457 | 1.338 | 35.51 |
| 13.61 | 18.457 | 0.204 | 10.54 | 1.1 | 0.0 | 90.475 | 1.105 | 0.0 | 17.457 | 1.338 | 35.52 |
| 13.62 | 18.457 | 0.204 | 10.53 | 1.1 | 0.0 | 90.475 | 1.105 | 0.0 | 17.457 | 1.338 | 35.52 |
| 13.63 | 18.355 | 0.204 | 10.53 | 1.1 | 0.0 | 89.975 | 1.111 | 0.0 | 17.355 | 1.347 | 35.7 |
| 13.64 | 18.355 | 0.204 | 10.52 | 1.1 | 0.0 | 89.975 | 1.111 | 0.0 | 17.355 | 1.347 | 35.7 |
| 13.65 | 18.355 | 0.204 | 10.52 | 1.1 | 0.0 | 89.975 | 1.111 | 0.0 | 17.355 | 1.348 | 35.7 |
| 13.66 | 18.253 | 0.204 | 10.50 | 1.1 | 0.0 | 89.475 | 1.118 | 0.0 | 17.253 | 1.357 | 35.89 |
| 13.67 | 18.253 | 0.204 | 10.50 | 1.1 | 0.0 | 89.475 | 1.118 | 0.0 | 17.253 | 1.357 | 35.89 |
| 13.68 | 18.355 | 0.204 | 10.50 | 1.1 | 0.0 | 89.975 | 1.111 | 0.0 | 17.355 | 1.348 | 35.71 |
| 13.69 | 18.355 | 0.194 | 10.50 | 1.1 | 0.0 | 94.613 | 1.057 | 0.0 | 17.355 | 1.282 | 35.16 |
| 13.70 | 18.355 | 0.194 | 10.50 | 1.1 | 0.0 | 94.613 | 1.057 | 0.0 | 17.355 | 1.283 | 35.16 |
| 13.71 | 18.457 | 0.194 | 10.50 | 1.1 | 0.0 | 95.139 | 1.051 | 0.0 | 17.457 | 1.274 | 34.99 |
| 13.72 | 18.559 | 0.204 | 10.50 | 1.1 | 0.0 | 90.975 | 1.099 | 0.0 | 17.559 | 1.331 | 35.35 |
| 13.73 | 18.559 | 0.204 | 10.50 | 1.1 | 0.0 | 90.975 | 1.099 | 0.0 | 17.559 | 1.331 | 35.36 |
| 13.74 | 18.661 | 0.204 | 10.49 | 1.1 | 0.0 | 91.475 | 1.093 | 0.0 | 17.661 | 1.323 | 35.18 |
| 13.75 | 18.762 | 0.204 | 10.49 | 1.1 | 0.0 | 91.971 | 1.087 | 0.0 | 17.762 | 1.314 | 35.01 |
| 13.76 | 18.762 | 0.204 | 10.48 | 1.1 | 0.0 | 91.971 | 1.087 | 0.0 | 17.762 | 1.314 | 35.01 |
| 13.77 | 18.762 | 0.194 | 10.47 | 1.1 | 0.0 | 96.711 | 1.034 | 0.0 | 17.762 | 1.25 | 34.47 |
| 13.78 | 18.762 | 0.204 | 10.47 | 1.1 | 0.0 | 91.971 | 1.087 | 0.0 | 17.762 | 1.315 | 35.01 |
| 13.79 | 18.661 | 0.204 | 10.46 | 1.1 | 0.0 | 91.475 | 1.093 | 0.0 | 17.661 | 1.324 | 35.19 |
| 13.80 | 18.559 | 0.204 | 10.45 | 1.1 | 0.0 | 90.975 | 1.099 | 0.0 | 17.559 | 1.333 | 35.37 |
| 13.81 | 18.559 | 0.204 | 10.44 | 1.1 | 0.0 | 90.975 | 1.099 | 0.0 | 17.559 | 1.333 | 35.37 |
| 13.82 | 18.457 | 0.204 | 10.44 | 1.1 | 0.0 | 90.475 | 1.105 | 0.0 | 17.457 | 1.342 | 35.55 |
| 13.83 | 18.457 | 0.204 | 10.43 | 1.1 | 0.0 | 90.475 | 1.105 | 0.0 | 17.457 | 1.342 | 35.55 |
| 13.84 | 18.457 | 0.204 | 10.43 | 1.1 | 0.0 | 90.475 | 1.105 | 0.0 | 17.457 | 1.342 | 35.55 |
| 13.85 | 18.457 | 0.204 | 10.42 | 1.1 | 0.0 | 90.475 | 1.105 | 0.0 | 17.457 | 1.343 | 35.56 |
| 13.86 | 18.457 | 0.204 | 10.42 | 1.1 | 0.0 | 90.475 | 1.105 | 0.0 | 17.457 | 1.343 | 35.56 |
| 13.87 | 18.457 | 0.204 | 10.42 | 1.1 | 0.0 | 90.475 | 1.105 | 0.0 | 17.457 | 1.343 | 35.56 |
| 13.88 | 18.457 | 0.184 | 10.22 | 1.1 | 0.0 | 100.31 | 0.997 | 0.0 | 17.457 | 1.212 | 34.45 |
| 13.89 | 18.457 | 0.184 | 10.22 | 1.1 | 0.0 | 100.31 | 0.997 | 0.0 | 17.457 | 1.212 | 34.45 |
| 13.90 | 18.355 | 0.194 | 10.22 | 1.1 | 0.0 | 94.613 | 1.057 | 0.0 | 17.355 | 1.286 | 35.2 |
| 13.91 | 18.355 | 0.194 | 10.21 | 1.1 | 0.0 | 94.613 | 1.057 | 0.0 | 17.355 | 1.287 | 35.2 |
| 13.92 | 18.253 | 0.194 | 10.20 | 1.1 | 0.0 | 94.088 | 1.063 | 0.0 | 17.253 | 1.296 | 35.38 |
| 13.93 | 18.253 | 0.194 | 10.20 | 1.1 | 0.0 | 94.088 | 1.063 | 0.0 | 17.253 | 1.296 | 35.38 |
| 13.94 | 18.151 | 0.194 | 10.19 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.305 | 35.57 |
| 13.95 | 18.151 | 0.194 | 10.18 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.305 | 35.57 |
| 13.96 | 18.151 | 0.194 | 10.18 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.305 | 35.57 |
| 13.97 | 18.151 | 0.194 | 10.17 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.306 | 35.57 |
| 13.98 | 18.151 | 0.194 | 10.17 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.306 | 35.57 |
| 13.99 | 18.049 | 0.204 | 10.17 | 1.1 | 0.0 | 88.475 | 1.13 | 0.0 | 17.049 | 1.383 | 36.32 |

Prova n. 2

| | | | | | | | | | | | |
|-------|--------|-------|-------|-----|-----|--------|-------|-----|--------|-------|-------|
| 14.00 | 18.049 | 0.204 | 10.17 | 1.1 | 0.0 | 88.475 | 1.13 | 0.0 | 17.049 | 1.383 | 36.32 |
| 14.01 | 18.151 | 0.194 | 10.19 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.306 | 35.58 |
| 14.02 | 18.253 | 0.194 | 10.19 | 1.1 | 0.0 | 94.088 | 1.063 | 0.0 | 17.253 | 1.298 | 35.4 |
| 14.03 | 18.253 | 0.184 | 10.19 | 1.1 | 0.0 | 99.201 | 1.008 | 0.0 | 17.253 | 1.231 | 34.83 |
| 14.04 | 18.253 | 0.184 | 10.18 | 1.1 | 0.0 | 99.201 | 1.008 | 0.0 | 17.253 | 1.231 | 34.83 |
| 14.05 | 18.253 | 0.184 | 10.18 | 1.1 | 0.0 | 99.201 | 1.008 | 0.0 | 17.253 | 1.231 | 34.83 |
| 14.06 | 18.151 | 0.184 | 10.18 | 1.1 | 0.0 | 98.647 | 1.014 | 0.0 | 17.151 | 1.24 | 35.01 |
| 14.07 | 18.151 | 0.184 | 10.17 | 1.1 | 0.0 | 98.647 | 1.014 | 0.0 | 17.151 | 1.24 | 35.02 |
| 14.08 | 18.151 | 0.184 | 10.16 | 1.1 | 0.0 | 98.647 | 1.014 | 0.0 | 17.151 | 1.24 | 35.02 |
| 14.09 | 18.151 | 0.184 | 10.15 | 1.1 | 0.0 | 98.647 | 1.014 | 0.0 | 17.151 | 1.241 | 35.02 |
| 14.10 | 18.049 | 0.184 | 10.14 | 1.1 | 0.0 | 98.092 | 1.019 | 0.0 | 17.049 | 1.249 | 35.2 |
| 14.11 | 18.049 | 0.184 | 10.15 | 1.1 | 0.0 | 98.092 | 1.019 | 0.0 | 17.049 | 1.25 | 35.21 |
| 14.12 | 18.151 | 0.184 | 10.15 | 1.1 | 0.0 | 98.647 | 1.014 | 0.0 | 17.151 | 1.241 | 35.02 |
| 14.13 | 18.151 | 0.184 | 10.14 | 1.1 | 0.0 | 98.647 | 1.014 | 0.0 | 17.151 | 1.241 | 35.03 |
| 14.14 | 18.049 | 0.184 | 10.13 | 1.1 | 0.0 | 98.092 | 1.019 | 0.0 | 17.049 | 1.25 | 35.21 |
| 14.15 | 18.151 | 0.184 | 10.13 | 1.1 | 0.0 | 98.647 | 1.014 | 0.0 | 17.151 | 1.242 | 35.03 |
| 14.16 | 18.151 | 0.194 | 10.13 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.309 | 35.6 |
| 14.17 | 18.151 | 0.194 | 10.13 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.31 | 35.6 |
| 14.18 | 18.151 | 0.194 | 10.12 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.31 | 35.61 |
| 14.19 | 18.151 | 0.194 | 10.13 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.31 | 35.61 |
| 14.20 | 18.151 | 0.194 | 10.12 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.31 | 35.61 |
| 14.21 | 18.151 | 0.194 | 10.12 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.31 | 35.61 |
| 14.22 | 18.151 | 0.194 | 10.13 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.311 | 35.61 |
| 14.23 | 18.151 | 0.194 | 10.13 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.311 | 35.62 |
| 14.24 | 18.151 | 0.194 | 10.13 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.311 | 35.62 |
| 14.25 | 18.151 | 0.184 | 10.13 | 1.1 | 0.0 | 98.647 | 1.014 | 0.0 | 17.151 | 1.244 | 35.05 |
| 14.26 | 18.253 | 0.194 | 10.12 | 1.1 | 0.0 | 94.088 | 1.063 | 0.0 | 17.253 | 1.302 | 35.44 |
| 14.27 | 18.151 | 0.194 | 10.12 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.312 | 35.62 |
| 14.28 | 18.151 | 0.194 | 10.12 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.312 | 35.62 |
| 14.29 | 18.151 | 0.194 | 10.12 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.312 | 35.63 |
| 14.30 | 18.151 | 0.194 | 10.11 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.312 | 35.63 |
| 14.31 | 18.049 | 0.194 | 10.09 | 1.1 | 0.0 | 93.036 | 1.075 | 0.0 | 17.049 | 1.322 | 35.81 |
| 14.32 | 18.049 | 0.194 | 10.09 | 1.1 | 0.0 | 93.036 | 1.075 | 0.0 | 17.049 | 1.322 | 35.82 |
| 14.33 | 18.049 | 0.194 | 10.09 | 1.1 | 0.0 | 93.036 | 1.075 | 0.0 | 17.049 | 1.322 | 35.82 |
| 14.34 | 18.049 | 0.194 | 10.09 | 1.1 | 0.0 | 93.036 | 1.075 | 0.0 | 17.049 | 1.322 | 35.82 |
| 14.35 | 18.151 | 0.194 | 10.09 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.313 | 35.64 |
| 14.36 | 18.151 | 0.194 | 10.09 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.314 | 35.64 |
| 14.37 | 18.151 | 0.194 | 10.09 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.314 | 35.64 |
| 14.38 | 18.151 | 0.194 | 10.09 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.314 | 35.64 |
| 14.39 | 18.049 | 0.194 | 10.08 | 1.1 | 0.0 | 93.036 | 1.075 | 0.0 | 17.049 | 1.323 | 35.83 |
| 14.40 | 18.151 | 0.194 | 10.08 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.314 | 35.64 |
| 14.41 | 18.151 | 0.194 | 10.08 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.315 | 35.65 |
| 14.42 | 18.151 | 0.194 | 10.06 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.315 | 35.65 |
| 14.43 | 18.151 | 0.204 | 10.06 | 1.1 | 0.0 | 88.975 | 1.124 | 0.0 | 17.151 | 1.383 | 36.21 |
| 14.44 | 18.151 | 0.204 | 10.05 | 1.1 | 0.0 | 88.975 | 1.124 | 0.0 | 17.151 | 1.383 | 36.21 |
| 14.45 | 18.049 | 0.204 | 10.05 | 1.1 | 0.0 | 88.475 | 1.13 | 0.0 | 17.049 | 1.393 | 36.4 |
| 14.46 | 18.049 | 0.204 | 10.05 | 1.1 | 0.0 | 88.475 | 1.13 | 0.0 | 17.049 | 1.393 | 36.4 |
| 14.47 | 18.049 | 0.204 | 10.05 | 1.1 | 0.0 | 88.475 | 1.13 | 0.0 | 17.049 | 1.393 | 36.4 |
| 14.48 | 18.049 | 0.204 | 10.05 | 1.1 | 0.0 | 88.475 | 1.13 | 0.0 | 17.049 | 1.393 | 36.4 |
| 14.49 | 18.049 | 0.204 | 10.06 | 1.1 | 0.0 | 88.475 | 1.13 | 0.0 | 17.049 | 1.394 | 36.4 |
| 14.50 | 18.151 | 0.204 | 10.06 | 1.1 | 0.0 | 88.975 | 1.124 | 0.0 | 17.151 | 1.384 | 36.22 |
| 14.51 | 18.151 | 0.204 | 10.05 | 1.1 | 0.0 | 88.975 | 1.124 | 0.0 | 17.151 | 1.384 | 36.22 |
| 14.52 | 18.049 | 0.204 | 10.05 | 1.1 | 0.0 | 88.475 | 1.13 | 0.0 | 17.049 | 1.394 | 36.41 |
| 14.53 | 18.049 | 0.194 | 10.05 | 1.1 | 0.0 | 93.036 | 1.075 | 0.0 | 17.049 | 1.326 | 35.85 |
| 14.54 | 18.049 | 0.194 | 10.05 | 1.1 | 0.0 | 93.036 | 1.075 | 0.0 | 17.049 | 1.326 | 35.85 |
| 14.55 | 18.151 | 0.204 | 10.05 | 1.1 | 0.0 | 88.975 | 1.124 | 0.0 | 17.151 | 1.385 | 36.23 |
| 14.56 | 18.049 | 0.204 | 10.05 | 1.1 | 0.0 | 88.475 | 1.13 | 0.0 | 17.049 | 1.395 | 36.42 |
| 14.57 | 18.151 | 0.204 | 10.05 | 1.1 | 0.0 | 88.975 | 1.124 | 0.0 | 17.151 | 1.386 | 36.23 |
| 14.58 | 18.151 | 0.194 | 10.05 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.318 | 35.68 |
| 14.59 | 18.151 | 0.194 | 10.05 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.318 | 35.68 |
| 14.60 | 18.253 | 0.194 | 10.05 | 1.1 | 0.0 | 94.088 | 1.063 | 0.0 | 17.253 | 1.309 | 35.49 |
| 14.61 | 18.151 | 0.194 | 10.05 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.319 | 35.68 |
| 14.62 | 18.049 | 0.194 | 10.05 | 1.1 | 0.0 | 93.036 | 1.075 | 0.0 | 17.049 | 1.328 | 35.87 |
| 14.63 | 18.151 | 0.194 | 10.05 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.319 | 35.68 |
| 14.64 | 18.151 | 0.194 | 10.05 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.319 | 35.69 |
| 14.65 | 18.151 | 0.194 | 10.05 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.32 | 35.69 |

Prova n. 2

| | | | | | | | | | | | |
|-------|--------|-------|-------|-----|-----|--------|-------|-----|--------|-------|-------|
| 14.66 | 18.151 | 0.194 | 10.06 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.32 | 35.69 |
| 14.67 | 18.151 | 0.194 | 10.08 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.32 | 35.69 |
| 14.68 | 18.151 | 0.194 | 10.08 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.32 | 35.69 |
| 14.69 | 18.253 | 0.194 | 10.06 | 1.1 | 0.0 | 94.088 | 1.063 | 0.0 | 17.253 | 1.311 | 35.51 |
| 14.70 | 18.253 | 0.194 | 10.06 | 1.1 | 0.0 | 94.088 | 1.063 | 0.0 | 17.253 | 1.311 | 35.51 |
| 14.71 | 18.253 | 0.194 | 10.06 | 1.1 | 0.0 | 94.088 | 1.063 | 0.0 | 17.253 | 1.312 | 35.51 |
| 14.72 | 18.253 | 0.194 | 10.08 | 1.1 | 0.0 | 94.088 | 1.063 | 0.0 | 17.253 | 1.312 | 35.52 |
| 14.73 | 18.253 | 0.194 | 10.08 | 1.1 | 0.0 | 94.088 | 1.063 | 0.0 | 17.253 | 1.312 | 35.52 |
| 14.74 | 18.355 | 0.194 | 10.09 | 1.1 | 0.0 | 94.613 | 1.057 | 0.0 | 17.355 | 1.303 | 35.34 |
| 14.75 | 18.355 | 0.194 | 10.09 | 1.1 | 0.0 | 94.613 | 1.057 | 0.0 | 17.355 | 1.303 | 35.34 |
| 14.76 | 18.457 | 0.194 | 10.10 | 1.1 | 0.0 | 95.139 | 1.051 | 0.0 | 17.457 | 1.295 | 35.16 |
| 14.77 | 18.457 | 0.194 | 10.10 | 1.1 | 0.0 | 95.139 | 1.051 | 0.0 | 17.457 | 1.295 | 35.16 |
| 14.78 | 18.457 | 0.194 | 10.10 | 1.1 | 0.0 | 95.139 | 1.051 | 0.0 | 17.457 | 1.295 | 35.16 |
| 14.79 | 18.457 | 0.194 | 10.10 | 1.1 | 0.0 | 95.139 | 1.051 | 0.0 | 17.457 | 1.295 | 35.16 |
| 14.80 | 18.457 | 0.194 | 10.06 | 1.1 | 0.0 | 95.139 | 1.051 | 0.0 | 17.457 | 1.296 | 35.17 |
| 14.81 | 18.457 | 0.194 | 10.08 | 1.1 | 0.0 | 95.139 | 1.051 | 0.0 | 17.457 | 1.296 | 35.17 |
| 14.82 | 18.457 | 0.194 | 10.09 | 1.1 | 0.0 | 95.139 | 1.051 | 0.0 | 17.457 | 1.296 | 35.17 |
| 14.83 | 18.355 | 0.194 | 10.09 | 1.1 | 0.0 | 94.613 | 1.057 | 0.0 | 17.355 | 1.305 | 35.35 |
| 14.84 | 18.355 | 0.194 | 10.09 | 1.1 | 0.0 | 94.613 | 1.057 | 0.0 | 17.355 | 1.305 | 35.35 |
| 14.85 | 18.355 | 0.194 | 10.09 | 1.1 | 0.0 | 94.613 | 1.057 | 0.0 | 17.355 | 1.306 | 35.36 |
| 14.86 | 18.151 | 0.194 | 10.12 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.324 | 35.72 |
| 14.87 | 18.151 | 0.194 | 10.12 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.324 | 35.73 |
| 14.88 | 18.151 | 0.194 | 10.13 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.324 | 35.73 |
| 14.89 | 18.151 | 0.194 | 10.13 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.325 | 35.73 |
| 14.90 | 18.049 | 0.194 | 10.13 | 1.1 | 0.0 | 93.036 | 1.075 | 0.0 | 17.049 | 1.334 | 35.92 |
| 14.91 | 18.049 | 0.184 | 10.13 | 1.1 | 0.0 | 98.092 | 1.019 | 0.0 | 17.049 | 1.265 | 35.34 |
| 14.92 | 18.049 | 0.184 | 10.13 | 1.1 | 0.0 | 98.092 | 1.019 | 0.0 | 17.049 | 1.266 | 35.34 |
| 14.93 | 18.049 | 0.194 | 10.13 | 1.1 | 0.0 | 93.036 | 1.075 | 0.0 | 17.049 | 1.335 | 35.92 |
| 14.94 | 18.049 | 0.194 | 10.15 | 1.1 | 0.0 | 93.036 | 1.075 | 0.0 | 17.049 | 1.335 | 35.92 |
| 14.95 | 18.151 | 0.194 | 10.15 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.326 | 35.74 |
| 14.96 | 18.151 | 0.194 | 10.16 | 1.1 | 0.0 | 93.562 | 1.069 | 0.0 | 17.151 | 1.326 | 35.74 |
| 14.97 | 18.049 | 0.194 | 10.16 | 1.2 | 0.0 | 93.036 | 1.075 | 0.0 | 17.049 | 1.336 | 35.93 |
| 14.98 | 18.049 | 0.194 | 10.16 | 1.2 | 0.0 | 93.036 | 1.075 | 0.0 | 17.049 | 1.336 | 35.93 |
| 14.99 | 18.049 | 0.194 | 10.17 | 1.2 | 0.0 | 93.036 | 1.075 | 0.0 | 17.049 | 1.336 | 35.93 |
| 15.00 | 18.049 | 0.194 | 10.17 | 1.2 | 0.0 | 93.037 | 1.075 | 0.0 | 17.050 | 1.336 | 36.94 |

STIMA PARAMETRI GEOTECNICI Nr.2**TERRENI COESIVI**Coesione non drenata (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Lunne & Eide | Sunda Relazione Sperimentale | Lunne T.-Kleven A. 1981 | Kjekstad. 1978 - Lunne, Robertson and Powell 1977 | Lunne, Robertson and Powell 1977 | Terzaghi |
|------------------|--------------------------|--------------------------|--------------|------------------------------|-------------------------|---|----------------------------------|----------|
| 1.18 | 30.443 | 24.293 | 1.46 | 1.83 | 2.02 | 1.78 | 1.60 | 1.52 |
| 1.52 | 127.484 | 91.836 | 6.14 | 4.09 | 8.48 | 7.48 | 6.69 | 6.37 |
| 2.79 | 145.705 | 113.742 | 7.02 | 4.29 | 9.68 | 8.54 | 7.64 | 7.29 |
| 4.67 | 34.404 | 25.125 | 1.62 | 1.96 | 2.24 | 1.98 | 1.77 | 1.72 |
| 5.37 | 90.087 | 64.221 | 4.30 | 3.49 | 5.93 | 5.24 | 4.68 | 4.50 |
| 8.00 | 13.88 | 13.11 | 0.60 | 0.89 | 0.83 | 0.73 | 0.66 | 0.69 |
| 11.00 | 17.417 | 16.441 | 0.75 | 1.06 | 1.03 | 0.91 | 0.81 | 0.87 |
| 12.00 | 18.595 | 17.857 | 0.79 | 1.10 | 1.08 | 0.96 | 0.86 | 0.93 |
| 13.50 | 23.648 | 21.379 | 1.02 | 1.36 | 1.41 | 1.24 | 1.11 | 1.18 |
| 15.00 | 18.434 | 18.254 | 0.75 | 1.05 | 1.04 | 0.92 | 0.82 | 0.92 |

Prova n. 2**Modulo Edometrico (Kg/cm²)**

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Mitchell & Gardner (1975) | Metodo generale del modulo edometrico | Buismann | Buismann Sanglerat |
|------------------|--------------------------|--------------------------|---------------------------|---------------------------------------|----------|--------------------|
| 1.18 | 30.443 | 24.293 | 76.11 | 60.89 | 91.33 | 91.33 |
| 1.52 | 127.484 | 91.836 | 318.71 | 254.96 | 382.45 | 191.23 |
| 2.79 | 145.705 | 113.742 | 364.26 | 291.41 | 437.11 | 218.56 |
| 4.67 | 34.404 | 25.125 | 86.01 | 68.81 | 103.21 | 103.21 |
| 5.37 | 90.087 | 64.221 | 225.22 | 180.17 | 270.26 | 135.13 |
| 8.00 | 13.88 | 13.11 | 69.40 | 48.29 | 83.28 | 41.64 |
| 11.00 | 17.417 | 16.441 | 87.09 | 46.70 | 104.50 | 52.25 |
| 12.00 | 18.595 | 17.857 | 92.98 | 44.92 | 111.57 | 55.78 |
| 13.50 | 23.648 | 21.379 | 59.12 | 47.30 | 70.94 | 70.94 |
| 14.99 | 18.434 | 18.254 | 92.17 | 45.20 | 110.60 | 55.30 |

Modulo di deformazione non drenato Eu (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Cancelli 1980 | Ladd 1977 (30) |
|------------------|--------------------------|--------------------------|---------------|----------------|
| 1.18 | 30.443 | 24.293 | 1136.97 | 45.60 |
| 1.52 | 127.484 | 91.836 | 4769.89 | 191.10 |
| 2.79 | 145.705 | 113.742 | 5446.00 | 218.70 |
| 4.67 | 34.404 | 25.125 | 1259.44 | 51.60 |
| 5.37 | 90.087 | 64.221 | 3337.62 | 135.00 |
| 8.00 | 13.88 | 13.11 | 467.60 | 20.70 |
| 11.00 | 17.417 | 16.441 | 580.18 | 26.10 |
| 12.00 | 18.595 | 17.857 | 610.11 | 27.90 |
| 13.50 | 23.648 | 21.379 | 790.41 | 35.40 |
| 14.99 | 18.434 | 18.254 | 583.95 | 27.60 |

Modulo di deformazione a taglio

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Modulo di deformazione a taglio (Kg/cm ²) |
|------------------|--------------------------|--------------------------|-----------------|---|
| 1.18 | 30.443 | 24.293 | Imai & Tomauchi | 225.72 |
| 1.52 | 127.484 | 91.836 | Imai & Tomauchi | 541.49 |
| 2.79 | 145.705 | 113.742 | Imai & Tomauchi | 587.54 |
| 4.67 | 34.404 | 25.125 | Imai & Tomauchi | 243.24 |
| 5.37 | 90.087 | 64.221 | Imai & Tomauchi | 437.98 |
| 8.00 | 13.88 | 13.11 | Imai & Tomauchi | 139.69 |
| 11.00 | 17.417 | 16.441 | Imai & Tomauchi | 160.47 |
| 12.00 | 18.595 | 17.857 | Imai & Tomauchi | 167.02 |
| 13.50 | 23.648 | 21.379 | Imai & Tomauchi | 193.44 |
| 14.99 | 18.434 | 18.254 | Imai & Tomauchi | 166.13 |

Grado di sovraconsolidazione

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Stress-History |
|------------------|--------------------------|--------------------------|----------------|
| 1.18 | 30.443 | 24.293 | 5.71 |
| 1.52 | 127.484 | 91.836 | >9 |
| 2.79 | 145.705 | 113.742 | 7.08 |
| 4.67 | 34.404 | 25.125 | 0.98 |
| 5.37 | 90.087 | 64.221 | 1.93 |
| 8.00 | 13.88 | 13.11 | <0.5 |
| 11.00 | 17.417 | 16.441 | <0.5 |
| 12.00 | 18.595 | 17.857 | <0.5 |
| 13.50 | 23.648 | 21.379 | <0.5 |
| 14.99 | 18.434 | 18.254 | <0.5 |

Prova n. 2

Peso unità di volume

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|--|
| 1.18 | 30.443 | 24.293 | Meyerhof | 2.04 |
| 1.52 | 127.484 | 91.836 | Meyerhof | 2.28 |
| 2.79 | 145.705 | 113.742 | Meyerhof | 2.31 |
| 4.67 | 34.404 | 25.125 | Meyerhof | 2.06 |
| 5.37 | 90.087 | 64.221 | Meyerhof | 2.22 |
| 8.00 | 13.88 | 13.11 | Meyerhof | 1.89 |
| 11.00 | 17.417 | 16.441 | Meyerhof | 1.93 |
| 12.00 | 18.595 | 17.857 | Meyerhof | 1.94 |
| 13.50 | 23.648 | 21.379 | Meyerhof | 1.98 |
| 14.99 | 18.434 | 18.254 | Meyerhof | 1.93 |

Peso unità di volume saturo

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume saturo (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|---|
| 1.18 | 30.443 | 24.293 | Meyerhof | 2.12 |
| 1.52 | 127.484 | 91.836 | Meyerhof | 2.36 |
| 2.79 | 145.705 | 113.742 | Meyerhof | 2.39 |
| 4.67 | 34.404 | 25.125 | Meyerhof | 2.14 |
| 5.37 | 90.087 | 64.221 | Meyerhof | 2.30 |
| 8.00 | 13.88 | 13.11 | Meyerhof | 1.97 |
| 11.00 | 17.417 | 16.441 | Meyerhof | 2.01 |
| 12.00 | 18.595 | 17.857 | Meyerhof | 2.02 |
| 13.50 | 23.648 | 21.379 | Meyerhof | 2.06 |
| 14.99 | 18.434 | 18.254 | Meyerhof | 2.01 |

TERRENI INCOERENTI

Densità relativa (%)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Baldi 1978 - Schmertman n 1976 | Schmertman n | Harman | Lancellotta 1983 | Jamiolkowski 1985 |
|------------------|--------------------------|--------------------------|--------------------------------|--------------|--------|------------------|-------------------|
| 1.18 | 30.443 | 24.293 | 61.76 | 83.4 | 81.37 | 62.56 | 93.05 |
| 1.52 | 127.484 | 91.836 | 90.54 | 100 | 100 | 91.58 | 100 |
| 2.79 | 145.705 | 113.742 | 87.07 | 100 | 100 | 88.08 | 99.2 |
| 4.67 | 34.404 | 25.125 | 38.41 | 37.07 | 40.15 | 39 | 42.43 |
| 5.37 | 90.087 | 64.221 | 61.78 | 64.76 | 66.48 | 62.57 | 61.98 |
| 8.00 | 13.88 | 13.11 | < 5 | < 5 | 5 | 5.19 | 5 |
| 11.00 | 17.417 | 16.441 | < 5 | < 5 | 5 | 7.09 | 5 |
| 12.00 | 18.595 | 17.857 | < 5 | < 5 | 5 | 6.41 | 5 |
| 13.50 | 23.648 | 21.379 | < 5 | < 5 | 5 | 11.86 | 5 |
| 14.99 | 18.434 | 18.254 | < 5 | < 5 | 5 | 5 | 5 |

Angolo di resistenza al taglio (°)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Durgunou glu-Mitchell 1973 | Caquot | Koppejan | De Beer | Schmertman | Robertson & Campanella 1983 | Herminier | Meyerhof 1951 |
|------------------|--------------------------|--------------------------|----------------------------|--------|----------|---------|------------|-----------------------------|-----------|---------------|
| 1.18 | 30.443 | 24.293 | 40.19 | 37.1 | 34.48 | 32.1 | 39.68 | 45 | 35.29 | 30.67 |
| 1.52 | 127.484 | 91.836 | 43.29 | 40.04 | 37.56 | 34.92 | 42 | 45 | 41.52 | 45 |
| 2.79 | 145.705 | 113.742 | 41.63 | 38.17 | 35.6 | 33.12 | 42 | 45 | 37.88 | 45 |
| 4.67 | 34.404 | 25.125 | 32.28 | 28.34 | 25.28 | 23.69 | 33.19 | 35.8 | 24.04 | 32.45 |
| 5.37 | 90.087 | 64.221 | 35.64 | 31.72 | 28.83 | 26.94 | 37.07 | 39.72 | 26.83 | 45 |
| 8.00 | 13.88 | 13.11 | 25.48 | 21.14 | 17.71 | 16.78 | 28.7 | 25.11 | 21.75 | 23.23 |
| 11.00 | 17.417 | 16.441 | 25.12 | 20.67 | 17.22 | 16.33 | 28.7 | 24.19 | 21.7 | 24.82 |
| 12.00 | 18.595 | 17.857 | 24.63 | 20.11 | 16.63 | 15.8 | 28.7 | 23.08 | 21.63 | 25.35 |
| 13.50 | 23.648 | 21.379 | 25.34 | 20.81 | 17.36 | 16.46 | 28.7 | 24.46 | 21.73 | 27.62 |
| 14.99 | 18.434 | 18.254 | 23.66 | 19.04 | 15.5 | 14.77 | 28.7 | 20.9 | 21.52 | 25.28 |

Prova n. 2**Modulo di Young (Kg/cm²)**

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Schmertmann | Robertson & Campanella (1983) | ISOPT-1 1988 Ey(50) |
|------------------|--------------------------|--------------------------|-------------|-------------------------------|---------------------|
| 1.18 | 30.443 | 24.293 | 76.11 | 60.89 | 182.41 |
| 1.52 | 127.484 | 91.836 | 318.71 | 254.97 | 509.94 |
| 2.79 | 145.705 | 113.742 | 364.26 | 291.41 | 582.82 |
| 4.67 | 34.404 | 25.125 | 86.01 | 68.81 | 397.42 |
| 5.37 | 90.087 | 64.221 | 225.22 | 180.17 | 741.31 |
| 8.00 | 13.88 | 13.11 | 34.70 | 27.76 | 213.75 |
| 11.00 | 17.417 | 16.441 | 43.54 | 34.83 | 268.22 |
| 12.00 | 18.595 | 17.857 | 46.49 | 37.19 | 286.36 |
| 13.50 | 23.648 | 21.379 | 59.12 | 47.30 | 364.18 |
| 14.99 | 18.434 | 18.254 | 46.09 | 36.87 | 283.88 |

Modulo Edometrico (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Robertson & Campanella da Schmertmann | Lunne-Christoffersen 1983 - Robertson and Powell 1997 | Kulhawy-Mayne 1990 | Mitchell & Gardner 1975 | Buisman - Sanglerat |
|------------------|--------------------------|--------------------------|---------------------------------------|---|--------------------|-------------------------|---------------------|
| 1.18 | 30.443 | 24.293 | 68.25 | 119.42 | 241.88 | 60.89 | 91.33 |
| 1.52 | 127.484 | 91.836 | 86.18 | 270.04 | 1041.13 | 191.23 | 191.23 |
| 2.79 | 145.705 | 113.742 | 88.97 | 305.78 | 1189.87 | 218.56 | 218.56 |
| 4.67 | 34.404 | 25.125 | 39.90 | 134.96 | 268.83 | 68.81 | 103.21 |
| 5.37 | 90.087 | 64.221 | 66.54 | 353.38 | 726.03 | 153.15 | 135.13 |
| 8.00 | 13.88 | 13.11 | 20.87 | 54.45 | 94.62 | 27.76 | 69.40 |
| 11.00 | 17.417 | 16.441 | 27.23 | 68.32 | 119.39 | 34.83 | 87.08 |
| 12.00 | 18.595 | 17.857 | 31.72 | 72.94 | 125.97 | 37.19 | 92.97 |
| 13.50 | 23.648 | 21.379 | 34.73 | 92.76 | 165.64 | 47.30 | 118.24 |
| 14.99 | 18.434 | 18.254 | 37.99 | 72.31 | 120.22 | 36.87 | 92.17 |

Modulo di deformazione a taglio

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | G (Kg/cm ²) |
|------------------|--------------------------|--------------------------|-----------------|-------------------------|
| 1.18 | 30.443 | 24.293 | Imai & Tomauchi | 225.72 |
| 1.52 | 127.484 | 91.836 | Imai & Tomauchi | 541.49 |
| 2.79 | 145.705 | 113.742 | Imai & Tomauchi | 587.54 |
| 4.67 | 34.404 | 25.125 | Imai & Tomauchi | 243.24 |
| 5.37 | 90.087 | 64.221 | Imai & Tomauchi | 437.98 |
| 8.00 | 13.88 | 13.11 | Imai & Tomauchi | 139.69 |
| 11.00 | 17.417 | 16.441 | Imai & Tomauchi | 160.47 |
| 12.00 | 18.595 | 17.857 | Imai & Tomauchi | 167.02 |
| 13.50 | 23.648 | 21.379 | Imai & Tomauchi | 193.44 |
| 14.99 | 18.434 | 18.254 | Imai & Tomauchi | 166.13 |

Grado di sovraconsolidazione

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Stress-History | Piacentini Righi 1978 | Larsson 1991 S.G.I. | Ladd e Foot 1977 |
|------------------|--------------------------|--------------------------|----------------|-----------------------|---------------------|------------------|
| 1.18 | 30.443 | 24.293 | 5.71 | >9 | 0.72 | >9 |
| 1.52 | 127.484 | 91.836 | >9 | >9 | <0.5 | >9 |
| 2.79 | 145.705 | 113.742 | 7.08 | >9 | 0.59 | >9 |
| 4.67 | 34.404 | 25.125 | 0.98 | >9 | <0.5 | >9 |
| 5.37 | 90.087 | 64.221 | 1.93 | >9 | 1.48 | >9 |
| 8.00 | 13.88 | 13.11 | <0.5 | >9 | <0.5 | 1.85 |
| 11.00 | 17.417 | 16.441 | <0.5 | >9 | <0.5 | 1.62 |
| 12.00 | 18.595 | 17.857 | <0.5 | >9 | <0.5 | 1.38 |
| 13.50 | 23.648 | 21.379 | <0.5 | >9 | <0.5 | 1.69 |
| 14.99 | 18.434 | 18.254 | <0.5 | 8.28 | <0.5 | 1.01 |

Prova n. 2

Modulo di reazione Ko

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Ko |
|------------------|--------------------------|--------------------------|------------------------|------|
| 1.18 | 30.443 | 24.293 | Kulhawy & Mayne (1990) | 1.09 |
| 1.52 | 127.484 | 91.836 | Kulhawy & Mayne (1990) | 0.00 |
| 2.79 | 145.705 | 113.742 | Kulhawy & Mayne (1990) | 1.25 |
| 4.67 | 34.404 | 25.125 | Kulhawy & Mayne (1990) | 0.35 |
| 5.37 | 90.087 | 64.221 | Kulhawy & Mayne (1990) | 0.54 |
| 8.00 | 13.88 | 13.11 | Kulhawy & Mayne (1990) | 0.00 |
| 11.00 | 17.417 | 16.441 | Kulhawy & Mayne (1990) | 0.00 |
| 12.00 | 18.595 | 17.857 | Kulhawy & Mayne (1990) | 0.00 |
| 13.50 | 23.648 | 21.379 | Kulhawy & Mayne (1990) | 0.00 |
| 14.99 | 18.434 | 18.254 | Kulhawy & Mayne (1990) | 0.00 |

Fattori di compressibilità C Crm

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | C | Crm |
|------------------|--------------------------|--------------------------|---------|---------|
| 1.18 | 30.443 | 24.293 | 0.12117 | 0.01575 |
| 1.52 | 127.484 | 91.836 | 0.094 | 0.01222 |
| 2.79 | 145.705 | 113.742 | 0.09519 | 0.01237 |
| 4.67 | 34.404 | 25.125 | 0.11674 | 0.01518 |
| 5.37 | 90.087 | 64.221 | 0.09537 | 0.0124 |
| 8.00 | 13.88 | 13.11 | 0.16282 | 0.02117 |
| 11.00 | 17.417 | 16.441 | 0.14336 | 0.01864 |
| 12.00 | 18.595 | 17.857 | 0.13852 | 0.01801 |
| 13.50 | 23.648 | 21.379 | 0.12324 | 0.01602 |
| 14.99 | 18.434 | 18.254 | 0.13915 | 0.01809 |

Peso unità di volume

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|--|
| 1.18 | 30.443 | 24.293 | Meyerhof | 1.80 |
| 1.52 | 127.484 | 91.836 | Meyerhof | 1.80 |
| 2.79 | 145.705 | 113.742 | Meyerhof | 1.80 |
| 4.67 | 34.404 | 25.125 | Meyerhof | 1.80 |
| 5.37 | 90.087 | 64.221 | Meyerhof | 1.80 |
| 8.00 | 13.88 | 13.11 | Meyerhof | 1.80 |
| 11.00 | 17.417 | 16.441 | Meyerhof | 1.80 |
| 12.00 | 18.595 | 17.857 | Meyerhof | 1.80 |
| 13.50 | 23.648 | 21.379 | Meyerhof | 1.80 |
| 14.99 | 18.434 | 18.254 | Meyerhof | 1.80 |

Peso unità di volume saturo

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume saturo (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|---|
| 1.18 | 30.443 | 24.293 | Meyerhof | 2.10 |
| 1.52 | 127.484 | 91.836 | Meyerhof | 2.10 |
| 2.79 | 145.705 | 113.742 | Meyerhof | 2.10 |
| 4.67 | 34.404 | 25.125 | Meyerhof | 2.10 |
| 5.37 | 90.087 | 64.221 | Meyerhof | 2.10 |
| 8.00 | 13.88 | 13.11 | Meyerhof | 2.10 |
| 11.00 | 17.417 | 16.441 | Meyerhof | 2.10 |
| 12.00 | 18.595 | 17.857 | Meyerhof | 2.10 |
| 13.50 | 23.648 | 21.379 | Meyerhof | 2.10 |
| 14.99 | 18.434 | 18.254 | Meyerhof | 2.10 |

Prova n. 2**Liquefazione - Accelerazione sismica massima (g)=0**

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Fattore di sicurezza a liquefazione |
|------------------|--------------------------|--------------------------|------------------------|-------------------------------------|
| 1.18 | 30.443 | 24.293 | Robertson & Wride 1997 | 0 |
| 1.52 | 127.484 | 91.836 | Robertson & Wride 1997 | 0 |
| 2.79 | 145.705 | 113.742 | Robertson & Wride 1997 | 0 |
| 4.67 | 34.404 | 25.125 | Robertson & Wride 1997 | 0 |
| 5.37 | 90.087 | 64.221 | Robertson & Wride 1997 | 0 |
| 8.00 | 13.88 | 13.11 | Robertson & Wride 1997 | 0 |
| 11.00 | 17.417 | 16.441 | Robertson & Wride 1997 | 0 |
| 12.00 | 18.595 | 17.857 | Robertson & Wride 1997 | 0 |
| 13.50 | 23.648 | 21.379 | Robertson & Wride 1997 | 0 |
| 14.99 | 18.434 | 18.254 | Robertson & Wride 1997 | 0 |

Permeabilità

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Permeabilità (cm/s) |
|------------------|--------------------------|--------------------------|-----------------------|---------------------|
| 1.18 | 30.443 | 24.293 | Piacentini-Righi 1988 | 1E-11 |
| 1.52 | 127.484 | 91.836 | Piacentini-Righi 1988 | 1E-11 |
| 2.79 | 145.705 | 113.742 | Piacentini-Righi 1988 | 1E-11 |
| 4.67 | 34.404 | 25.125 | Piacentini-Righi 1988 | 1E-11 |
| 5.37 | 90.087 | 64.221 | Piacentini-Righi 1988 | 1E-11 |
| 8.00 | 13.88 | 13.11 | Piacentini-Righi 1988 | 1E-11 |
| 11.00 | 17.417 | 16.441 | Piacentini-Righi 1988 | 1E-11 |
| 12.00 | 18.595 | 17.857 | Piacentini-Righi 1988 | 1E-11 |
| 13.50 | 23.648 | 21.379 | Piacentini-Righi 1988 | 1E-11 |
| 14.99 | 18.434 | 18.254 | Piacentini-Righi 1988 | 1E-11 |

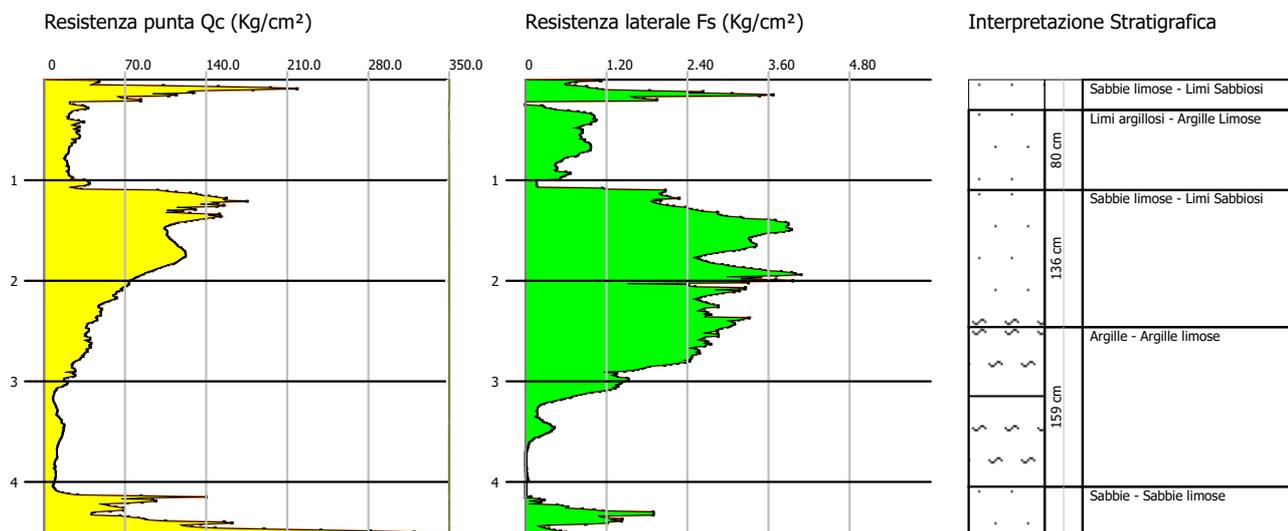
Coefficiente di consolidazione

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Coefficiente di consolidazione (cm ² /s) |
|------------------|--------------------------|--------------------------|-----------------------|---|
| 1.18 | 30.443 | 24.293 | Piacentini-Righi 1988 | 9.1329E-07 |
| 1.52 | 127.484 | 91.836 | Piacentini-Righi 1988 | 3.82452E-06 |
| 2.79 | 145.705 | 113.742 | Piacentini-Righi 1988 | 4.37115E-06 |
| 4.67 | 34.404 | 25.125 | Piacentini-Righi 1988 | 1.03212E-06 |
| 5.37 | 90.087 | 64.221 | Piacentini-Righi 1988 | 2.70261E-06 |
| 8.00 | 13.88 | 13.11 | Piacentini-Righi 1988 | 4.164E-07 |
| 11.00 | 17.417 | 16.441 | Piacentini-Righi 1988 | 5.2251E-07 |
| 12.00 | 18.595 | 17.857 | Piacentini-Righi 1988 | 5.578499E-07 |
| 13.50 | 23.648 | 21.379 | Piacentini-Righi 1988 | 7.0944E-07 |
| 14.99 | 18.434 | 18.254 | Piacentini-Righi 1988 | 5.5302E-07 |

Probe CPTU - Piezocone Nr.3
Strumento utilizzato PAGANI 200 kN (CPTU)

Committente: Comune di Livorno
 Cantiere: Porta San Marco - Livorno
 Località: Porta San Marco - Livorno

Data: 08/01/2019



Prova n. 3

PROVA CPTU3_MS2

Committente: Comune di Livorno
 Strumento utilizzato: PAGANI 200 kN (CPTU)
 Prova eseguita in data: 08/01/2019
 Profondità prova: 4.54 mt
 Località: Porta San Marco - Livorno

RESISTENZE / LITOLOGIE

Profondità
 qc Resistenza punta (Kg/cm²);
 fs Resistenza laterale (Kg/cm²);
 Tilt Inclinazione (°)
 Temp Temperatura (°)
 Fr fs/qcx100 (Schmertmann)
 qcn qc normalizzata (Kg/cm²);
 fsn fs normalizzato (Kg/cm²);
 U2 Pressione neutrale intorno al cono (Kg/cm²);
 Uo Pressione neutrale rilevata (Kg/cm²);
 Fc Contenuto in materiale fine(%)

| Profondità | qc | fs | U2 | Tilt | Temp | qc/fs | Fr | Uo | qcn | fsn | FC% |
|------------|---------|-------|------|------|------|---------|-------|-----|---------|-------|-------|
| 0.01 | 47.416 | 1.122 | 0.16 | 0.8 | 0.0 | 42.26 | 2.366 | 0.0 | 46.416 | 2.366 | 26.69 |
| 0.02 | 47.008 | 0.755 | 0.11 | 0.8 | 0.0 | 62.262 | 1.606 | 0.0 | 46.008 | 1.606 | 22.59 |
| 0.03 | 44.561 | 0.653 | 0.08 | 0.8 | 0.0 | 68.24 | 1.465 | 0.0 | 43.561 | 1.466 | 22.39 |
| 0.04 | 42.827 | 0.581 | 0.07 | 0.8 | 0.0 | 73.713 | 1.357 | 0.0 | 41.827 | 1.357 | 22.17 |
| 0.05 | 40.584 | 0.591 | 0.06 | 0.8 | 0.0 | 68.67 | 1.456 | 0.0 | 39.584 | 1.457 | 23.58 |
| 0.06 | 102.99 | 0.734 | 0.08 | 0.5 | 0.0 | 140.313 | 0.713 | 0.0 | 101.99 | 0.713 | 8.4 |
| 0.07 | 150.406 | 0.908 | 0.10 | 0.2 | 0.0 | 165.645 | 0.604 | 0.0 | 149.406 | 0.604 | 4.99 |
| 0.08 | 195.476 | 0.928 | 0.10 | 0.0 | 0.0 | 210.642 | 0.475 | 0.0 | 194.476 | 0.475 | 2.6 |
| 0.09 | 218.522 | 1.06 | 0.12 | 0.5 | 0.0 | 206.153 | 0.485 | 0.0 | 217.522 | 0.485 | 2.16 |
| 0.10 | 180.487 | 1.142 | 0.11 | 0.7 | 0.0 | 158.045 | 0.633 | 0.0 | 179.487 | 0.633 | 4.17 |
| 0.11 | 127.666 | 1.846 | 0.10 | 0.7 | 0.0 | 69.158 | 1.446 | 0.0 | 126.666 | 1.446 | 11.45 |
| 0.12 | 124.301 | 2.641 | 0.12 | 0.8 | 0.0 | 47.066 | 2.125 | 0.0 | 123.301 | 2.125 | 15 |

Prova n. 3

| | | | | | | | | | | | |
|------|---------|-------|-------|-----|-----|---------|-------|-----|---------|-------|-------|
| 0.13 | 128.992 | 2.406 | 0.12 | 0.8 | 0.0 | 53.613 | 1.865 | 0.0 | 127.992 | 1.866 | 13.49 |
| 0.14 | 93.914 | 3.069 | 0.13 | 0.9 | 0.0 | 30.601 | 3.268 | 0.0 | 92.914 | 3.269 | 22.31 |
| 0.15 | 114.104 | 3.681 | 0.13 | 0.9 | 0.0 | 30.998 | 3.226 | 0.0 | 113.104 | 3.227 | 20.19 |
| 0.16 | 107.68 | 3.477 | 0.13 | 0.9 | 0.0 | 30.969 | 3.229 | 0.0 | 106.68 | 3.23 | 20.77 |
| 0.17 | 63.731 | 1.57 | 0.12 | 1.0 | 0.0 | 40.593 | 2.463 | 0.0 | 62.731 | 2.465 | 23.37 |
| 0.18 | 66.382 | 1.621 | 0.12 | 1.0 | 0.0 | 40.951 | 2.442 | 0.0 | 65.382 | 2.443 | 22.79 |
| 0.19 | 70.869 | 1.764 | 0.12 | 1.0 | 0.0 | 40.175 | 2.489 | 0.0 | 69.869 | 2.491 | 22.24 |
| 0.20 | 83.411 | 1.958 | 0.12 | 1.0 | 0.0 | 42.6 | 2.347 | 0.0 | 82.411 | 2.349 | 19.8 |
| 0.21 | 83.411 | 1.958 | 0.12 | 1.0 | 0.0 | 42.6 | 2.347 | 0.0 | 82.411 | 2.349 | 19.81 |
| 0.22 | 21.72 | 0.0 | -0.14 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 20.72 | 0.0 | 29.59 |
| 0.23 | 21.72 | 0.0 | -0.14 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 20.72 | 0.0 | 29.59 |
| 0.24 | 21.72 | 0.0 | -0.14 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 20.72 | 0.0 | 29.59 |
| 0.25 | 25.594 | 0.0 | -0.12 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 24.594 | 0.0 | 26.85 |
| 0.26 | 33.038 | 0.245 | -0.12 | 0.4 | 0.0 | 134.849 | 0.742 | 0.0 | 32.038 | 0.743 | 20.61 |
| 0.27 | 35.282 | 0.265 | -0.06 | 0.4 | 0.0 | 133.14 | 0.751 | 0.0 | 34.282 | 0.752 | 19.81 |
| 0.28 | 37.933 | 0.286 | -0.05 | 0.4 | 0.0 | 132.633 | 0.754 | 0.0 | 36.933 | 0.755 | 18.88 |
| 0.29 | 35.384 | 0.377 | -0.03 | 0.4 | 0.0 | 93.857 | 1.065 | 0.0 | 34.384 | 1.067 | 22.58 |
| 0.30 | 28.654 | 0.438 | 0.00 | 0.4 | 0.0 | 65.42 | 1.529 | 0.0 | 27.654 | 1.532 | 29.25 |
| 0.31 | 23.963 | 0.642 | 0.00 | 0.4 | 0.0 | 37.326 | 2.679 | 0.0 | 22.963 | 2.687 | 39.26 |
| 0.32 | 23.147 | 0.785 | -0.01 | 0.4 | 0.0 | 29.487 | 3.391 | 0.0 | 22.147 | 3.402 | 43.37 |
| 0.33 | 22.229 | 0.877 | -0.13 | 0.4 | 0.0 | 25.347 | 3.945 | 0.0 | 21.229 | 3.958 | 46.57 |
| 0.34 | 21.108 | 0.969 | -0.10 | 0.4 | 0.0 | 21.783 | 4.591 | 0.0 | 20.108 | 4.607 | 50.19 |
| 0.35 | 20.904 | 0.989 | -0.12 | 0.4 | 0.0 | 21.137 | 4.731 | 0.0 | 19.904 | 4.748 | 50.93 |
| 0.36 | 20.904 | 1.01 | -0.11 | 0.4 | 0.0 | 20.697 | 4.832 | 0.0 | 19.904 | 4.85 | 51.3 |
| 0.37 | 19.272 | 1.02 | -0.12 | 0.4 | 0.0 | 18.894 | 5.293 | 0.0 | 18.272 | 5.315 | 54.72 |
| 0.38 | 20.904 | 1.01 | -0.13 | 0.4 | 0.0 | 20.697 | 4.832 | 0.0 | 19.904 | 4.851 | 51.3 |
| 0.39 | 19.782 | 0.999 | -0.01 | 0.4 | 0.0 | 19.802 | 5.05 | 0.0 | 18.782 | 5.071 | 53.29 |
| 0.40 | 24.167 | 1.05 | -0.13 | 0.4 | 0.0 | 23.016 | 4.345 | 0.0 | 23.167 | 4.36 | 46.5 |
| 0.41 | 29.673 | 1.03 | -0.01 | 0.4 | 0.0 | 28.809 | 3.471 | 0.0 | 28.673 | 3.481 | 39.12 |
| 0.42 | 34.16 | 0.969 | -0.01 | 0.4 | 0.0 | 35.253 | 2.837 | 0.0 | 33.16 | 2.844 | 33.89 |
| 0.43 | 29.265 | 0.969 | 0.00 | 0.4 | 0.0 | 30.201 | 3.311 | 0.0 | 28.265 | 3.322 | 38.67 |
| 0.44 | 26.614 | 0.969 | 0.00 | 0.4 | 0.0 | 27.465 | 3.641 | 0.0 | 25.614 | 3.654 | 41.82 |
| 0.45 | 23.861 | 0.857 | 0.00 | 0.4 | 0.0 | 27.842 | 3.592 | 0.0 | 22.861 | 3.606 | 43.68 |
| 0.46 | 26.206 | 0.826 | -0.02 | 0.4 | 0.0 | 31.726 | 3.152 | 0.0 | 25.206 | 3.164 | 39.94 |
| 0.47 | 30.183 | 0.795 | -0.01 | 0.4 | 0.0 | 37.966 | 2.634 | 0.0 | 29.183 | 2.643 | 34.94 |
| 0.48 | 28.246 | 0.724 | 0.00 | 0.4 | 0.0 | 39.014 | 2.563 | 0.0 | 27.246 | 2.572 | 35.71 |
| 0.49 | 25.085 | 0.806 | 0.00 | 0.4 | 0.0 | 31.123 | 3.213 | 0.0 | 24.085 | 3.226 | 41.04 |
| 0.50 | 26.308 | 0.846 | -0.01 | 0.4 | 0.0 | 31.097 | 3.216 | 0.0 | 25.308 | 3.229 | 40.17 |
| 0.51 | 29.979 | 0.826 | -0.01 | 0.4 | 0.0 | 36.294 | 2.755 | 0.0 | 28.979 | 2.765 | 35.67 |
| 0.52 | 27.124 | 0.846 | 0.00 | 0.4 | 0.0 | 32.061 | 3.119 | 0.0 | 26.124 | 3.132 | 39.17 |
| 0.53 | 27.634 | 0.836 | -0.01 | 0.4 | 0.0 | 33.055 | 3.025 | 0.0 | 26.634 | 3.038 | 38.39 |
| 0.54 | 28.246 | 0.806 | -0.01 | 0.3 | 0.0 | 35.045 | 2.854 | 0.0 | 27.246 | 2.865 | 37.18 |
| 0.55 | 29.775 | 0.795 | -0.03 | 0.3 | 0.0 | 37.453 | 2.67 | 0.0 | 28.775 | 2.68 | 35.36 |
| 0.56 | 30.387 | 0.806 | -0.03 | 0.4 | 0.0 | 37.701 | 2.652 | 0.0 | 29.387 | 2.663 | 34.93 |
| 0.57 | 30.285 | 0.816 | 0.02 | 0.4 | 0.0 | 37.114 | 2.694 | 0.0 | 29.285 | 2.705 | 35.2 |
| 0.58 | 29.571 | 0.826 | -0.02 | 0.4 | 0.0 | 35.8 | 2.793 | 0.0 | 28.571 | 2.805 | 36.1 |
| 0.59 | 23.759 | 0.806 | -0.03 | 0.4 | 0.0 | 29.478 | 3.392 | 0.0 | 22.759 | 3.41 | 42.9 |
| 0.60 | 24.269 | 0.877 | -0.03 | 0.4 | 0.0 | 27.673 | 3.614 | 0.0 | 23.269 | 3.633 | 43.47 |
| 0.61 | 26.716 | 0.867 | -0.26 | 0.4 | 0.0 | 30.814 | 3.245 | 0.0 | 25.716 | 3.261 | 40.03 |
| 0.62 | 26.41 | 0.877 | -0.11 | 0.4 | 0.0 | 30.114 | 3.321 | 0.0 | 25.41 | 3.337 | 40.59 |
| 0.63 | 23.249 | 0.928 | -0.05 | 0.4 | 0.0 | 25.053 | 3.992 | 0.0 | 22.249 | 4.014 | 45.91 |
| 0.64 | 23.453 | 0.948 | -0.06 | 0.4 | 0.0 | 24.739 | 4.042 | 0.0 | 22.453 | 4.065 | 45.94 |
| 0.65 | 23.453 | 0.959 | -0.07 | 0.4 | 0.0 | 24.456 | 4.089 | 0.0 | 22.453 | 4.113 | 46.13 |
| 0.66 | 21.924 | 0.959 | -0.02 | 0.4 | 0.0 | 22.861 | 4.374 | 0.0 | 20.924 | 4.402 | 48.62 |
| 0.67 | 21.006 | 0.969 | 0.00 | 0.4 | 0.0 | 21.678 | 4.613 | 0.0 | 20.006 | 4.644 | 50.44 |
| 0.68 | 21.006 | 0.959 | -0.01 | 0.4 | 0.0 | 21.904 | 4.565 | 0.0 | 20.006 | 4.596 | 50.26 |
| 0.69 | 20.7 | 0.959 | -0.01 | 0.4 | 0.0 | 21.585 | 4.633 | 0.0 | 19.7 | 4.665 | 50.83 |
| 0.70 | 20.904 | 0.959 | -0.01 | 0.4 | 0.0 | 21.798 | 4.588 | 0.0 | 19.904 | 4.62 | 50.45 |
| 0.71 | 20.598 | 0.918 | -0.01 | 0.4 | 0.0 | 22.438 | 4.457 | 0.0 | 19.598 | 4.489 | 50.26 |
| 0.72 | 20.598 | 0.857 | -0.01 | 0.4 | 0.0 | 24.035 | 4.161 | 0.0 | 19.598 | 4.191 | 49.09 |
| 0.73 | 20.292 | 0.795 | 0.00 | 0.4 | 0.0 | 25.525 | 3.918 | 0.0 | 19.292 | 3.947 | 48.4 |
| 0.74 | 19.272 | 0.785 | 0.00 | 0.4 | 0.0 | 24.55 | 4.073 | 0.0 | 18.272 | 4.106 | 50.15 |
| 0.75 | 18.253 | 0.775 | 0.00 | 0.4 | 0.0 | 23.552 | 4.246 | 0.0 | 17.253 | 4.282 | 52.06 |
| 0.76 | 18.049 | 0.744 | 0.00 | 0.4 | 0.0 | 24.259 | 4.122 | 0.0 | 17.049 | 4.158 | 51.8 |
| 0.77 | 17.845 | 0.622 | 0.00 | 0.4 | 0.0 | 28.69 | 3.486 | 0.0 | 16.845 | 3.517 | 49.26 |
| 0.78 | 16.621 | 0.571 | 0.00 | 0.4 | 0.0 | 29.109 | 3.435 | 0.0 | 15.621 | 3.469 | 50.6 |

Prova n. 3

| | | | | | | | | | | | |
|------|---------|-------|------|-----|-----|---------|-------|-----|---------|-------|-------|
| 0.79 | 17.029 | 0.551 | 0.00 | 0.4 | 0.0 | 30.906 | 3.236 | 0.0 | 16.029 | 3.267 | 49.1 |
| 0.80 | 17.539 | 0.54 | 0.00 | 0.4 | 0.0 | 32.48 | 3.079 | 0.0 | 16.539 | 3.108 | 47.67 |
| 0.81 | 19.068 | 0.51 | 0.00 | 0.4 | 0.0 | 37.388 | 2.675 | 0.0 | 18.068 | 2.698 | 43.79 |
| 0.82 | 19.374 | 0.469 | 0.00 | 0.4 | 0.0 | 41.309 | 2.421 | 0.0 | 18.374 | 2.442 | 42.04 |
| 0.83 | 19.272 | 0.449 | 0.00 | 0.4 | 0.0 | 42.922 | 2.33 | 0.0 | 18.272 | 2.351 | 41.62 |
| 0.84 | 19.68 | 0.438 | 0.00 | 0.4 | 0.0 | 44.932 | 2.226 | 0.0 | 18.68 | 2.245 | 40.58 |
| 0.85 | 19.578 | 0.428 | 0.00 | 0.4 | 0.0 | 45.743 | 2.186 | 0.0 | 18.578 | 2.206 | 40.45 |
| 0.86 | 18.864 | 0.438 | 0.00 | 0.4 | 0.0 | 43.068 | 2.322 | 0.0 | 17.864 | 2.344 | 42.01 |
| 0.87 | 20.904 | 0.449 | 0.00 | 0.4 | 0.0 | 46.557 | 2.148 | 0.0 | 19.904 | 2.166 | 38.93 |
| 0.88 | 20.802 | 0.469 | 0.00 | 0.4 | 0.0 | 44.354 | 2.255 | 0.0 | 19.802 | 2.274 | 39.67 |
| 0.89 | 20.904 | 0.459 | 0.00 | 0.4 | 0.0 | 45.542 | 2.196 | 0.0 | 19.904 | 2.215 | 39.22 |
| 0.90 | 20.496 | 0.428 | 0.00 | 0.4 | 0.0 | 47.888 | 2.088 | 0.0 | 19.496 | 2.107 | 38.95 |
| 0.91 | 18.762 | 0.449 | 0.00 | 0.4 | 0.0 | 41.786 | 2.393 | 0.0 | 17.762 | 2.417 | 42.55 |
| 0.92 | 20.088 | 0.602 | 0.00 | 0.4 | 0.0 | 33.369 | 2.997 | 0.0 | 19.088 | 3.025 | 44.41 |
| 0.93 | 20.394 | 0.663 | 0.00 | 0.4 | 0.0 | 30.76 | 3.251 | 0.0 | 19.394 | 3.282 | 45.34 |
| 0.94 | 20.598 | 0.622 | 0.00 | 0.4 | 0.0 | 33.116 | 3.02 | 0.0 | 19.598 | 3.048 | 44.02 |
| 0.95 | 20.7 | 0.591 | 0.00 | 0.4 | 0.0 | 35.025 | 2.855 | 0.0 | 19.7 | 2.882 | 43.09 |
| 0.96 | 21.618 | 0.561 | 0.00 | 0.4 | 0.0 | 38.535 | 2.595 | 0.0 | 20.618 | 2.619 | 40.86 |
| 0.97 | 23.351 | 0.52 | 0.00 | 0.4 | 0.0 | 44.906 | 2.227 | 0.0 | 22.351 | 2.246 | 37.32 |
| 0.98 | 24.575 | 0.51 | 0.00 | 0.4 | 0.0 | 48.186 | 2.075 | 0.0 | 23.575 | 2.092 | 35.48 |
| 0.99 | 22.841 | 0.5 | 0.00 | 0.4 | 0.0 | 45.682 | 2.189 | 0.0 | 21.841 | 2.209 | 37.51 |
| 1.00 | 34.466 | 0.143 | 0.05 | 0.2 | 0.0 | 241.021 | 0.415 | 0.0 | 33.466 | 0.417 | 16.4 |
| 1.01 | 37.423 | 0.153 | 0.13 | 0.3 | 0.0 | 244.595 | 0.409 | 0.0 | 36.423 | 0.411 | 15.3 |
| 1.02 | 37.423 | 0.153 | 0.13 | 0.3 | 0.0 | 244.595 | 0.409 | 0.0 | 36.423 | 0.411 | 15.3 |
| 1.03 | 39.055 | 0.163 | 0.10 | 0.5 | 0.0 | 239.601 | 0.417 | 0.0 | 38.055 | 0.42 | 14.89 |
| 1.04 | 37.933 | 0.163 | 0.08 | 0.6 | 0.0 | 232.718 | 0.43 | 0.0 | 36.933 | 0.432 | 15.39 |
| 1.05 | 35.18 | 0.153 | 0.08 | 0.6 | 0.0 | 229.935 | 0.435 | 0.0 | 34.18 | 0.438 | 16.39 |
| 1.06 | 28.246 | 0.163 | 0.08 | 0.6 | 0.0 | 173.288 | 0.577 | 0.0 | 27.246 | 0.582 | 21.08 |
| 1.07 | 22.739 | 0.173 | 0.08 | 0.6 | 0.0 | 131.439 | 0.761 | 0.0 | 21.739 | 0.768 | 26.5 |
| 1.08 | 26.206 | 1.142 | 0.14 | 0.7 | 0.0 | 22.947 | 4.358 | 0.0 | 25.206 | 4.395 | 45.06 |
| 1.09 | 31.917 | 1.173 | 0.15 | 0.7 | 0.0 | 27.21 | 3.675 | 0.0 | 30.917 | 3.701 | 38.77 |
| 1.10 | 98.197 | 2.08 | 0.13 | 1.0 | 0.0 | 47.21 | 2.118 | 0.0 | 97.197 | 2.123 | 17.12 |
| 1.11 | 106.151 | 2.07 | 0.13 | 1.0 | 0.0 | 51.281 | 1.95 | 0.0 | 105.151 | 1.954 | 15.6 |
| 1.12 | 113.9 | 2.029 | 0.13 | 1.0 | 0.0 | 56.136 | 1.781 | 0.0 | 112.9 | 1.785 | 14.14 |
| 1.13 | 126.341 | 1.988 | 0.13 | 1.0 | 0.0 | 63.552 | 1.574 | 0.0 | 125.341 | 1.576 | 12.22 |
| 1.14 | 131.439 | 1.988 | 0.14 | 1.0 | 0.0 | 66.116 | 1.512 | 0.0 | 130.439 | 1.515 | 11.59 |
| 1.15 | 135.11 | 2.019 | 0.14 | 1.0 | 0.0 | 66.919 | 1.494 | 0.0 | 134.11 | 1.497 | 11.28 |
| 1.16 | 142.656 | 2.101 | 0.14 | 0.9 | 0.0 | 67.899 | 1.473 | 0.0 | 141.656 | 1.475 | 10.76 |
| 1.17 | 148.366 | 2.141 | 0.14 | 0.9 | 0.0 | 69.298 | 1.443 | 0.0 | 147.366 | 1.445 | 10.32 |
| 1.18 | 157.238 | 2.284 | 0.14 | 0.9 | 0.0 | 68.843 | 1.453 | 0.0 | 156.238 | 1.455 | 9.96 |
| 1.19 | 154.587 | 1.927 | 0.15 | 0.9 | 0.0 | 80.222 | 1.247 | 0.0 | 153.587 | 1.249 | 8.97 |
| 1.20 | 156.116 | 2.009 | 0.15 | 0.9 | 0.0 | 77.708 | 1.287 | 0.0 | 155.116 | 1.289 | 9.12 |
| 1.21 | 175.388 | 1.866 | 0.15 | 0.9 | 0.0 | 93.991 | 1.064 | 0.0 | 174.388 | 1.065 | 7.1 |
| 1.22 | 145.919 | 1.886 | 0.15 | 0.9 | 0.0 | 77.37 | 1.292 | 0.0 | 144.919 | 1.295 | 9.63 |
| 1.23 | 149.794 | 1.937 | 0.15 | 0.9 | 0.0 | 77.333 | 1.293 | 0.0 | 148.794 | 1.295 | 9.44 |
| 1.24 | 135.11 | 1.999 | 0.15 | 0.9 | 0.0 | 67.589 | 1.48 | 0.0 | 134.11 | 1.482 | 11.21 |
| 1.25 | 155.096 | 2.111 | 0.16 | 0.9 | 0.0 | 73.47 | 1.361 | 0.0 | 154.096 | 1.363 | 9.57 |
| 1.26 | 149.386 | 2.203 | 0.16 | 0.9 | 0.0 | 67.81 | 1.475 | 0.0 | 148.386 | 1.477 | 10.44 |
| 1.27 | 114.818 | 2.386 | 0.16 | 0.9 | 0.0 | 48.122 | 2.078 | 0.0 | 113.818 | 2.083 | 15.5 |
| 1.28 | 126.035 | 2.406 | 0.16 | 0.8 | 0.0 | 52.384 | 1.909 | 0.0 | 125.035 | 1.913 | 13.91 |
| 1.29 | 130.318 | 2.468 | 0.17 | 0.8 | 0.0 | 52.803 | 1.894 | 0.0 | 129.318 | 1.898 | 13.56 |
| 1.30 | 105.947 | 2.549 | 0.17 | 0.8 | 0.0 | 41.564 | 2.406 | 0.0 | 104.947 | 2.412 | 17.69 |
| 1.31 | 119.713 | 2.631 | 0.17 | 0.8 | 0.0 | 45.501 | 2.198 | 0.0 | 118.713 | 2.203 | 15.67 |
| 1.32 | 105.233 | 2.855 | 0.17 | 0.8 | 0.0 | 36.859 | 2.713 | 0.0 | 104.233 | 2.72 | 19.04 |
| 1.33 | 125.831 | 2.855 | 0.17 | 0.8 | 0.0 | 44.074 | 2.269 | 0.0 | 124.831 | 2.274 | 15.55 |
| 1.34 | 151.425 | 2.855 | 0.17 | 0.8 | 0.0 | 53.039 | 1.885 | 0.0 | 150.425 | 1.889 | 12.34 |
| 1.35 | 141.942 | 2.906 | 0.19 | 0.9 | 0.0 | 48.844 | 2.047 | 0.0 | 140.942 | 2.051 | 13.58 |
| 1.36 | 152.547 | 2.988 | 0.19 | 0.9 | 0.0 | 51.053 | 1.959 | 0.0 | 151.547 | 1.962 | 12.62 |
| 1.37 | 146.021 | 3.202 | 0.19 | 0.9 | 0.0 | 45.603 | 2.193 | 0.0 | 145.021 | 2.197 | 13.99 |
| 1.38 | 139.597 | 3.232 | 0.19 | 0.9 | 0.0 | 43.192 | 2.315 | 0.0 | 138.597 | 2.32 | 14.87 |
| 1.39 | 132.255 | 3.61 | 0.19 | 0.9 | 0.0 | 36.636 | 2.73 | 0.0 | 131.255 | 2.736 | 17 |
| 1.40 | 127.259 | 3.712 | 0.19 | 0.9 | 0.0 | 34.283 | 2.917 | 0.0 | 126.259 | 2.924 | 18.06 |
| 1.41 | 122.058 | 3.722 | 0.19 | 0.9 | 0.0 | 32.794 | 3.049 | 0.0 | 121.058 | 3.057 | 18.93 |
| 1.42 | 115.328 | 3.865 | 0.19 | 0.8 | 0.0 | 29.839 | 3.351 | 0.0 | 114.328 | 3.36 | 20.56 |
| 1.43 | 112.269 | 3.905 | 0.19 | 0.9 | 0.0 | 28.75 | 3.478 | 0.0 | 111.269 | 3.488 | 21.27 |
| 1.44 | 109.108 | 3.905 | 0.19 | 0.8 | 0.0 | 27.941 | 3.579 | 0.0 | 108.108 | 3.589 | 21.9 |

Prova n. 3

| | | | | | | | | | | | |
|------|---------|-------|------|-----|-----|--------|-------|-----|---------|-------|-------|
| 1.45 | 106.559 | 3.885 | 0.19 | 0.9 | 0.0 | 27.428 | 3.646 | 0.0 | 105.559 | 3.656 | 22.37 |
| 1.46 | 104.519 | 3.875 | 0.19 | 0.9 | 0.0 | 26.973 | 3.707 | 0.0 | 103.519 | 3.718 | 22.78 |
| 1.47 | 103.703 | 3.865 | 0.19 | 0.8 | 0.0 | 26.831 | 3.727 | 0.0 | 102.703 | 3.738 | 22.93 |
| 1.48 | 103.296 | 3.916 | 0.19 | 0.9 | 0.0 | 26.378 | 3.791 | 0.0 | 102.296 | 3.803 | 23.19 |
| 1.49 | 103.602 | 3.956 | 0.19 | 0.9 | 0.0 | 26.189 | 3.818 | 0.0 | 102.602 | 3.83 | 23.25 |
| 1.50 | 105.131 | 3.916 | 0.19 | 0.8 | 0.0 | 26.847 | 3.725 | 0.0 | 104.131 | 3.736 | 22.78 |
| 1.51 | 105.845 | 3.834 | 0.19 | 0.8 | 0.0 | 27.607 | 3.622 | 0.0 | 104.845 | 3.633 | 22.36 |
| 1.52 | 106.049 | 3.722 | 0.19 | 0.8 | 0.0 | 28.492 | 3.51 | 0.0 | 105.049 | 3.52 | 21.95 |
| 1.53 | 105.641 | 3.538 | 0.19 | 0.8 | 0.0 | 29.859 | 3.349 | 0.0 | 104.641 | 3.359 | 21.43 |
| 1.54 | 105.335 | 3.487 | 0.19 | 0.8 | 0.0 | 30.208 | 3.31 | 0.0 | 104.335 | 3.321 | 21.32 |
| 1.55 | 105.539 | 3.426 | 0.19 | 0.8 | 0.0 | 30.805 | 3.246 | 0.0 | 104.539 | 3.256 | 21.06 |
| 1.56 | 106.457 | 3.365 | 0.19 | 0.8 | 0.0 | 31.637 | 3.161 | 0.0 | 105.457 | 3.171 | 20.66 |
| 1.57 | 107.272 | 3.314 | 0.19 | 0.8 | 0.0 | 32.369 | 3.089 | 0.0 | 106.272 | 3.099 | 20.32 |
| 1.58 | 107.578 | 3.314 | 0.20 | 0.8 | 0.0 | 32.462 | 3.081 | 0.0 | 106.578 | 3.09 | 20.26 |
| 1.59 | 108.802 | 3.314 | 0.20 | 0.8 | 0.0 | 32.831 | 3.046 | 0.0 | 107.802 | 3.055 | 20.02 |
| 1.60 | 109.822 | 3.345 | 0.20 | 0.8 | 0.0 | 32.832 | 3.046 | 0.0 | 108.822 | 3.055 | 19.93 |
| 1.61 | 110.943 | 3.334 | 0.20 | 0.8 | 0.0 | 33.276 | 3.005 | 0.0 | 109.943 | 3.014 | 19.68 |
| 1.62 | 112.167 | 3.355 | 0.20 | 0.8 | 0.0 | 33.433 | 2.991 | 0.0 | 111.167 | 3.0 | 19.52 |
| 1.63 | 112.881 | 3.385 | 0.20 | 0.8 | 0.0 | 33.347 | 2.999 | 0.0 | 111.881 | 3.008 | 19.48 |
| 1.64 | 113.799 | 3.426 | 0.20 | 0.8 | 0.0 | 33.216 | 3.011 | 0.0 | 112.799 | 3.02 | 19.45 |
| 1.65 | 114.716 | 3.426 | 0.20 | 0.8 | 0.0 | 33.484 | 2.987 | 0.0 | 113.716 | 2.996 | 19.28 |
| 1.66 | 115.226 | 3.406 | 0.20 | 0.8 | 0.0 | 33.83 | 2.956 | 0.0 | 114.226 | 2.965 | 19.13 |
| 1.67 | 117.265 | 3.283 | 0.20 | 0.8 | 0.0 | 35.719 | 2.8 | 0.0 | 116.265 | 2.808 | 18.36 |
| 1.68 | 118.285 | 3.253 | 0.20 | 0.8 | 0.0 | 36.362 | 2.75 | 0.0 | 117.285 | 2.758 | 18.09 |
| 1.69 | 119.203 | 3.181 | 0.20 | 0.8 | 0.0 | 37.473 | 2.669 | 0.0 | 118.203 | 2.677 | 17.69 |
| 1.70 | 120.325 | 3.1 | 0.21 | 0.8 | 0.0 | 38.815 | 2.576 | 0.0 | 119.325 | 2.584 | 17.24 |
| 1.71 | 121.14 | 2.937 | 0.21 | 0.8 | 0.0 | 41.246 | 2.424 | 0.0 | 120.14 | 2.432 | 16.55 |
| 1.72 | 121.446 | 2.845 | 0.21 | 0.8 | 0.0 | 42.688 | 2.343 | 0.0 | 120.446 | 2.35 | 16.18 |
| 1.73 | 121.548 | 2.753 | 0.21 | 0.8 | 0.0 | 44.151 | 2.265 | 0.0 | 120.548 | 2.272 | 15.84 |
| 1.74 | 121.548 | 2.672 | 0.21 | 0.8 | 0.0 | 45.49 | 2.198 | 0.0 | 120.548 | 2.205 | 15.55 |
| 1.75 | 122.16 | 2.61 | 0.21 | 0.8 | 0.0 | 46.805 | 2.137 | 0.0 | 121.16 | 2.143 | 15.23 |
| 1.76 | 121.14 | 2.57 | 0.21 | 0.8 | 0.0 | 47.136 | 2.122 | 0.0 | 120.14 | 2.128 | 15.23 |
| 1.77 | 119.509 | 2.498 | 0.21 | 0.8 | 0.0 | 47.842 | 2.09 | 0.0 | 118.509 | 2.097 | 15.21 |
| 1.78 | 117.979 | 2.539 | 0.21 | 0.8 | 0.0 | 46.467 | 2.152 | 0.0 | 116.979 | 2.159 | 15.6 |
| 1.79 | 116.654 | 2.59 | 0.21 | 0.8 | 0.0 | 45.04 | 2.22 | 0.0 | 115.654 | 2.228 | 16.01 |
| 1.80 | 115.736 | 2.621 | 0.21 | 0.8 | 0.0 | 44.157 | 2.265 | 0.0 | 114.736 | 2.272 | 16.27 |
| 1.81 | 114.308 | 2.682 | 0.21 | 0.8 | 0.0 | 42.62 | 2.346 | 0.0 | 113.308 | 2.354 | 16.74 |
| 1.82 | 112.881 | 2.723 | 0.21 | 0.8 | 0.0 | 41.455 | 2.412 | 0.0 | 111.881 | 2.421 | 17.14 |
| 1.83 | 111.453 | 2.794 | 0.21 | 0.8 | 0.0 | 39.89 | 2.507 | 0.0 | 110.453 | 2.516 | 17.66 |
| 1.84 | 107.374 | 2.927 | 0.21 | 0.8 | 0.0 | 36.684 | 2.726 | 0.0 | 106.374 | 2.736 | 18.91 |
| 1.85 | 104.315 | 3.008 | 0.21 | 0.8 | 0.0 | 34.679 | 2.884 | 0.0 | 103.315 | 2.895 | 19.82 |
| 1.86 | 101.868 | 3.1 | 0.21 | 0.8 | 0.0 | 32.861 | 3.043 | 0.0 | 100.868 | 3.055 | 20.67 |
| 1.87 | 99.625 | 3.243 | 0.21 | 0.8 | 0.0 | 30.72 | 3.255 | 0.0 | 98.625 | 3.268 | 21.69 |
| 1.88 | 96.77 | 3.355 | 0.21 | 0.8 | 0.0 | 28.844 | 3.467 | 0.0 | 95.77 | 3.481 | 22.77 |
| 1.89 | 94.832 | 3.487 | 0.21 | 0.8 | 0.0 | 27.196 | 3.677 | 0.0 | 93.832 | 3.693 | 23.72 |
| 1.90 | 93.099 | 3.559 | 0.22 | 0.8 | 0.0 | 26.159 | 3.823 | 0.0 | 92.099 | 3.84 | 24.42 |
| 1.91 | 89.938 | 3.803 | 0.22 | 0.8 | 0.0 | 23.649 | 4.228 | 0.0 | 88.938 | 4.248 | 26.15 |
| 1.92 | 87.082 | 3.956 | 0.22 | 0.8 | 0.0 | 22.013 | 4.543 | 0.0 | 86.082 | 4.564 | 27.51 |
| 1.93 | 85.655 | 4.007 | 0.22 | 0.8 | 0.0 | 21.376 | 4.678 | 0.0 | 84.655 | 4.701 | 28.12 |
| 1.94 | 83.819 | 4.099 | 0.22 | 0.8 | 0.0 | 20.449 | 4.89 | 0.0 | 82.819 | 4.915 | 29.02 |
| 1.95 | 81.78 | 3.732 | 0.22 | 0.8 | 0.0 | 21.913 | 4.563 | 0.0 | 80.78 | 4.587 | 28.32 |
| 1.96 | 79.741 | 2.998 | 0.22 | 0.8 | 0.0 | 26.598 | 3.76 | 0.0 | 78.741 | 3.78 | 25.97 |
| 1.97 | 77.905 | 3.498 | 0.22 | 0.8 | 0.0 | 22.271 | 4.49 | 0.0 | 76.905 | 4.515 | 28.68 |
| 1.98 | 76.579 | 3.202 | 0.22 | 0.8 | 0.0 | 23.916 | 4.181 | 0.0 | 75.579 | 4.205 | 27.89 |
| 1.99 | 74.03 | 3.722 | 0.22 | 0.8 | 0.0 | 19.89 | 5.028 | 0.0 | 73.03 | 5.057 | 30.97 |
| 2.00 | 73.011 | 3.977 | 0.22 | 0.8 | 0.0 | 18.358 | 5.447 | 0.0 | 72.011 | 5.479 | 32.37 |
| 2.01 | 72.807 | 3.212 | 0.22 | 0.8 | 0.0 | 22.667 | 4.412 | 0.0 | 71.807 | 4.438 | 29.27 |
| 2.02 | 72.603 | 3.314 | 0.22 | 0.8 | 0.0 | 21.908 | 4.565 | 0.0 | 71.603 | 4.592 | 29.8 |
| 2.03 | 73.112 | 1.519 | 0.22 | 0.8 | 0.0 | 48.132 | 2.078 | 0.0 | 72.112 | 2.09 | 20 |
| 2.04 | 71.889 | 2.417 | 0.22 | 0.8 | 0.0 | 29.743 | 3.362 | 0.0 | 70.889 | 3.383 | 25.76 |
| 2.05 | 70.971 | 2.417 | 0.22 | 0.7 | 0.0 | 29.363 | 3.406 | 0.0 | 69.971 | 3.427 | 26.08 |
| 2.06 | 68.32 | 2.519 | 0.22 | 0.7 | 0.0 | 27.122 | 3.687 | 0.0 | 67.32 | 3.711 | 27.59 |
| 2.07 | 66.994 | 3.273 | 0.22 | 0.7 | 0.0 | 20.469 | 4.886 | 0.0 | 65.994 | 4.918 | 31.84 |
| 2.08 | 65.873 | 3.263 | 0.22 | 0.7 | 0.0 | 20.188 | 4.953 | 0.0 | 64.873 | 4.987 | 32.28 |
| 2.09 | 67.3 | 2.825 | 0.22 | 0.7 | 0.0 | 23.823 | 4.198 | 0.0 | 66.3 | 4.226 | 29.57 |
| 2.10 | 64.445 | 3.181 | 0.22 | 0.7 | 0.0 | 20.259 | 4.936 | 0.0 | 63.445 | 4.971 | 32.52 |

Prova n. 3

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 2.11 | 62.1 | 3.1 | 0.22 | 0.7 | 0.0 | 20.032 | 4.992 | 0.0 | 61.1 | 5.029 | 33.2 |
| 2.12 | 61.794 | 2.937 | 0.22 | 0.7 | 0.0 | 21.04 | 4.753 | 0.0 | 60.794 | 4.788 | 32.52 |
| 2.13 | 61.386 | 2.845 | 0.22 | 0.7 | 0.0 | 21.577 | 4.635 | 0.0 | 60.386 | 4.669 | 32.24 |
| 2.14 | 59.143 | 2.753 | 0.22 | 0.7 | 0.0 | 21.483 | 4.655 | 0.0 | 58.143 | 4.691 | 32.82 |
| 2.15 | 59.245 | 2.672 | 0.22 | 0.7 | 0.0 | 22.173 | 4.51 | 0.0 | 58.245 | 4.546 | 32.32 |
| 2.16 | 59.856 | 2.61 | 0.22 | 0.7 | 0.0 | 22.933 | 4.36 | 0.0 | 58.856 | 4.395 | 31.68 |
| 2.17 | 62.508 | 2.57 | 0.22 | 0.7 | 0.0 | 24.322 | 4.111 | 0.0 | 61.508 | 4.142 | 30.25 |
| 2.18 | 60.57 | 2.498 | 0.22 | 0.7 | 0.0 | 24.247 | 4.124 | 0.0 | 59.57 | 4.156 | 30.72 |
| 2.19 | 57.613 | 2.539 | 0.22 | 0.7 | 0.0 | 22.691 | 4.407 | 0.0 | 56.613 | 4.443 | 32.37 |
| 2.20 | 55.574 | 2.59 | 0.22 | 0.7 | 0.0 | 21.457 | 4.66 | 0.0 | 54.574 | 4.7 | 33.71 |
| 2.21 | 52.718 | 2.621 | 0.22 | 0.7 | 0.0 | 20.114 | 4.972 | 0.0 | 51.718 | 5.017 | 35.48 |
| 2.22 | 50.781 | 2.682 | 0.21 | 0.7 | 0.0 | 18.934 | 5.282 | 0.0 | 49.781 | 5.332 | 37 |
| 2.23 | 48.844 | 2.723 | 0.21 | 0.7 | 0.0 | 17.938 | 5.575 | 0.0 | 47.844 | 5.63 | 38.48 |
| 2.24 | 47.212 | 2.794 | 0.21 | 0.7 | 0.0 | 16.898 | 5.918 | 0.0 | 46.212 | 5.979 | 40.02 |
| 2.25 | 46.396 | 2.865 | 0.21 | 0.6 | 0.0 | 16.194 | 6.175 | 0.0 | 45.396 | 6.24 | 41.03 |
| 2.26 | 45.988 | 2.865 | 0.21 | 0.6 | 0.0 | 16.052 | 6.23 | 0.0 | 44.988 | 6.296 | 41.32 |
| 2.27 | 46.906 | 2.661 | 0.21 | 0.6 | 0.0 | 17.627 | 5.673 | 0.0 | 45.906 | 5.733 | 39.41 |
| 2.28 | 49.659 | 2.631 | 0.21 | 0.6 | 0.0 | 18.875 | 5.298 | 0.0 | 48.659 | 5.351 | 37.39 |
| 2.29 | 48.742 | 2.6 | 0.21 | 0.6 | 0.0 | 18.747 | 5.334 | 0.0 | 47.742 | 5.389 | 37.79 |
| 2.30 | 48.64 | 2.559 | 0.21 | 0.6 | 0.0 | 19.007 | 5.261 | 0.0 | 47.64 | 5.315 | 37.6 |
| 2.31 | 47.722 | 2.672 | 0.21 | 0.6 | 0.0 | 17.86 | 5.599 | 0.0 | 46.722 | 5.658 | 38.92 |
| 2.32 | 48.64 | 2.712 | 0.21 | 0.6 | 0.0 | 17.935 | 5.576 | 0.0 | 47.64 | 5.633 | 38.55 |
| 2.33 | 48.64 | 2.661 | 0.21 | 0.6 | 0.0 | 18.279 | 5.471 | 0.0 | 47.64 | 5.528 | 38.24 |
| 2.34 | 48.64 | 2.753 | 0.21 | 0.6 | 0.0 | 17.668 | 5.66 | 0.0 | 47.64 | 5.719 | 38.8 |
| 2.35 | 45.479 | 2.672 | 0.18 | 0.6 | 0.0 | 17.021 | 5.875 | 0.0 | 44.479 | 5.941 | 40.5 |
| 2.36 | 44.255 | 2.661 | 0.18 | 0.6 | 0.0 | 16.631 | 6.013 | 0.0 | 43.255 | 6.083 | 41.34 |
| 2.37 | 44.153 | 3.324 | 0.18 | 0.6 | 0.0 | 13.283 | 7.528 | 0.0 | 43.153 | 7.616 | 45.42 |
| 2.38 | 45.071 | 3.232 | 0.18 | 0.6 | 0.0 | 13.945 | 7.171 | 0.0 | 44.071 | 7.253 | 44.18 |
| 2.39 | 45.581 | 3.171 | 0.18 | 0.6 | 0.0 | 14.374 | 6.957 | 0.0 | 44.581 | 7.036 | 43.44 |
| 2.40 | 42.929 | 3.018 | 0.18 | 0.6 | 0.0 | 14.224 | 7.03 | 0.0 | 41.929 | 7.116 | 44.63 |
| 2.41 | 41.298 | 3.059 | 0.18 | 0.6 | 0.0 | 13.5 | 7.407 | 0.0 | 40.298 | 7.501 | 46.27 |
| 2.42 | 37.933 | 3.1 | 0.18 | 0.6 | 0.0 | 12.236 | 8.172 | 0.0 | 36.933 | 8.286 | 49.67 |
| 2.43 | 36.709 | 3.11 | 0.18 | 0.6 | 0.0 | 11.804 | 8.472 | 0.0 | 35.709 | 8.594 | 50.99 |
| 2.44 | 36.607 | 3.069 | 0.18 | 0.6 | 0.0 | 11.928 | 8.384 | 0.0 | 35.607 | 8.505 | 50.84 |
| 2.45 | 36.199 | 3.039 | 0.18 | 0.6 | 0.0 | 11.911 | 8.395 | 0.0 | 35.199 | 8.519 | 51.07 |
| 2.46 | 35.791 | 3.008 | 0.18 | 0.6 | 0.0 | 11.899 | 8.404 | 0.0 | 34.791 | 8.53 | 51.31 |
| 2.47 | 35.486 | 2.916 | 0.18 | 0.6 | 0.0 | 12.169 | 8.217 | 0.0 | 34.486 | 8.342 | 51.02 |
| 2.48 | 38.035 | 2.865 | 0.18 | 0.6 | 0.0 | 13.276 | 7.533 | 0.0 | 37.035 | 7.639 | 48.05 |
| 2.49 | 38.137 | 2.835 | 0.18 | 0.6 | 0.0 | 13.452 | 7.434 | 0.0 | 37.137 | 7.539 | 47.75 |
| 2.50 | 37.831 | 2.855 | 0.18 | 0.6 | 0.0 | 13.251 | 7.547 | 0.0 | 36.831 | 7.655 | 48.19 |
| 2.51 | 36.811 | 2.743 | 0.18 | 0.6 | 0.0 | 13.42 | 7.452 | 0.0 | 35.811 | 7.562 | 48.44 |
| 2.52 | 35.486 | 2.661 | 0.18 | 0.6 | 0.0 | 13.336 | 7.499 | 0.0 | 34.486 | 7.615 | 49.24 |
| 2.53 | 34.67 | 2.855 | 0.18 | 0.6 | 0.0 | 12.144 | 8.235 | 0.0 | 33.67 | 8.366 | 51.51 |
| 2.54 | 35.588 | 2.865 | 0.18 | 0.6 | 0.0 | 12.422 | 8.05 | 0.0 | 34.588 | 8.176 | 50.57 |
| 2.55 | 34.67 | 2.865 | 0.18 | 0.6 | 0.0 | 12.101 | 8.264 | 0.0 | 33.67 | 8.396 | 51.58 |
| 2.56 | 36.505 | 2.661 | 0.18 | 0.6 | 0.0 | 13.719 | 7.289 | 0.0 | 35.505 | 7.401 | 48.18 |
| 2.57 | 39.564 | 2.631 | 0.18 | 0.6 | 0.0 | 15.038 | 6.65 | 0.0 | 38.564 | 6.744 | 45.04 |
| 2.58 | 39.564 | 2.6 | 0.18 | 0.6 | 0.0 | 15.217 | 6.572 | 0.0 | 38.564 | 6.665 | 44.82 |
| 2.59 | 34.874 | 2.559 | 0.18 | 0.6 | 0.0 | 13.628 | 7.338 | 0.0 | 33.874 | 7.456 | 49.15 |
| 2.60 | 36.709 | 2.672 | 0.18 | 0.6 | 0.0 | 13.738 | 7.279 | 0.0 | 35.709 | 7.391 | 48.05 |
| 2.61 | 38.239 | 2.712 | 0.18 | 0.6 | 0.0 | 14.1 | 7.092 | 0.0 | 37.239 | 7.197 | 46.83 |
| 2.62 | 40.686 | 2.661 | 0.18 | 0.6 | 0.0 | 15.29 | 6.54 | 0.0 | 39.686 | 6.632 | 44.26 |
| 2.63 | 39.462 | 2.753 | 0.18 | 0.6 | 0.0 | 14.334 | 6.976 | 0.0 | 38.462 | 7.077 | 45.97 |
| 2.64 | 38.545 | 2.672 | 0.18 | 0.6 | 0.0 | 14.426 | 6.932 | 0.0 | 37.545 | 7.035 | 46.27 |
| 2.65 | 38.647 | 2.661 | 0.18 | 0.6 | 0.0 | 14.523 | 6.885 | 0.0 | 37.647 | 6.988 | 46.09 |
| 2.66 | 40.074 | 2.498 | 0.18 | 0.6 | 0.0 | 16.042 | 6.233 | 0.0 | 39.074 | 6.323 | 43.66 |
| 2.67 | 37.831 | 2.447 | 0.18 | 0.6 | 0.0 | 15.46 | 6.468 | 0.0 | 36.831 | 6.567 | 45.33 |
| 2.68 | 36.097 | 2.529 | 0.18 | 0.6 | 0.0 | 14.273 | 7.006 | 0.0 | 35.097 | 7.119 | 47.65 |
| 2.69 | 36.403 | 2.559 | 0.18 | 0.6 | 0.0 | 14.225 | 7.03 | 0.0 | 35.403 | 7.143 | 47.56 |
| 2.70 | 37.219 | 2.58 | 0.18 | 0.6 | 0.0 | 14.426 | 6.932 | 0.0 | 36.219 | 7.041 | 46.9 |
| 2.71 | 35.384 | 2.539 | 0.18 | 0.6 | 0.0 | 13.936 | 7.176 | 0.0 | 34.384 | 7.295 | 48.47 |
| 2.72 | 34.262 | 2.59 | 0.18 | 0.6 | 0.0 | 13.229 | 7.559 | 0.0 | 33.262 | 7.69 | 50.07 |
| 2.73 | 34.16 | 2.529 | 0.18 | 0.6 | 0.0 | 13.507 | 7.403 | 0.0 | 33.16 | 7.532 | 49.72 |
| 2.74 | 32.528 | 2.468 | 0.18 | 0.6 | 0.0 | 13.18 | 7.587 | 0.0 | 31.528 | 7.726 | 51.13 |
| 2.75 | 33.65 | 2.478 | 0.18 | 0.6 | 0.0 | 13.579 | 7.364 | 0.0 | 32.65 | 7.495 | 49.91 |
| 2.76 | 31.407 | 2.457 | 0.18 | 0.6 | 0.0 | 12.783 | 7.823 | 0.0 | 30.407 | 7.973 | 52.42 |

Prova n. 3

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|--------|-----|--------|--------|-------|
| 2.77 | 30.999 | 2.457 | 0.18 | 0.6 | 0.0 | 12.617 | 7.926 | 0.0 | 29.999 | 8.08 | 52.94 |
| 2.78 | 30.285 | 2.447 | 0.18 | 0.6 | 0.0 | 12.376 | 8.08 | 0.0 | 29.285 | 8.242 | 53.79 |
| 2.79 | 28.144 | 2.366 | 0.18 | 0.6 | 0.0 | 11.895 | 8.407 | 0.0 | 27.144 | 8.589 | 56.1 |
| 2.80 | 26.002 | 2.437 | 0.18 | 0.6 | 0.0 | 10.67 | 9.372 | 0.0 | 25.002 | 9.593 | 60.09 |
| 2.81 | 24.983 | 2.376 | 0.18 | 0.6 | 0.0 | 10.515 | 9.51 | 0.0 | 23.983 | 9.745 | 61.28 |
| 2.82 | 24.473 | 2.264 | 0.18 | 0.6 | 0.0 | 10.81 | 9.251 | 0.0 | 23.473 | 9.484 | 61.14 |
| 2.83 | 23.147 | 2.162 | 0.18 | 0.6 | 0.0 | 10.706 | 9.34 | 0.0 | 22.147 | 9.591 | 62.6 |
| 2.84 | 23.861 | 2.07 | 0.18 | 0.6 | 0.0 | 11.527 | 8.675 | 0.0 | 22.861 | 8.901 | 60.32 |
| 2.85 | 23.147 | 1.846 | 0.18 | 0.6 | 0.0 | 12.539 | 7.975 | 0.0 | 22.147 | 8.19 | 59.22 |
| 2.86 | 23.657 | 1.784 | 0.18 | 0.6 | 0.0 | 13.261 | 7.541 | 0.0 | 22.657 | 7.741 | 57.58 |
| 2.87 | 23.759 | 1.744 | 0.18 | 0.6 | 0.0 | 13.623 | 7.34 | 0.0 | 22.759 | 7.534 | 56.94 |
| 2.88 | 25.9 | 1.672 | 0.18 | 0.6 | 0.0 | 15.49 | 6.456 | 0.0 | 24.9 | 6.612 | 52.58 |
| 2.89 | 26.41 | 1.601 | 0.18 | 0.6 | 0.0 | 16.496 | 6.062 | 0.0 | 25.41 | 6.207 | 50.99 |
| 2.90 | 26.716 | 1.479 | 0.18 | 0.6 | 0.0 | 18.064 | 5.536 | 0.0 | 25.716 | 5.667 | 49.09 |
| 2.91 | 19.272 | 1.162 | 0.18 | 0.6 | 0.0 | 16.585 | 6.029 | 0.0 | 18.272 | 6.23 | 57.75 |
| 2.92 | 25.594 | 1.356 | 0.18 | 0.6 | 0.0 | 18.875 | 5.298 | 0.0 | 24.594 | 5.43 | 49.17 |
| 2.93 | 24.677 | 1.326 | 0.18 | 0.6 | 0.0 | 18.61 | 5.373 | 0.0 | 23.677 | 5.513 | 50.17 |
| 2.94 | 26.818 | 1.285 | 0.18 | 0.6 | 0.0 | 20.87 | 4.792 | 0.0 | 25.818 | 4.906 | 46.47 |
| 2.95 | 25.085 | 1.346 | 0.18 | 0.6 | 0.0 | 18.637 | 5.366 | 0.0 | 24.085 | 5.504 | 49.81 |
| 2.96 | 20.19 | 1.366 | 0.17 | 0.6 | 0.0 | 14.78 | 6.766 | 0.0 | 19.19 | 6.984 | 58.97 |
| 2.97 | 16.927 | 1.509 | 0.17 | 0.6 | 0.0 | 11.217 | 8.915 | 0.0 | 15.927 | 9.261 | 69.19 |
| 2.98 | 16.723 | 1.53 | 0.17 | 0.6 | 0.0 | 10.93 | 9.149 | 0.0 | 15.723 | 9.51 | 70.1 |
| 2.99 | 16.621 | 1.519 | 0.17 | 0.6 | 0.0 | 10.942 | 9.139 | 0.0 | 15.621 | 9.503 | 70.24 |
| 3.00 | 16.927 | 1.468 | 0.17 | 0.6 | 0.0 | 11.531 | 8.673 | 0.0 | 15.927 | 9.012 | 68.58 |
| 3.01 | 19.986 | 1.428 | 0.17 | 0.6 | 0.0 | 13.996 | 7.145 | 0.0 | 18.986 | 7.381 | 60.33 |
| 3.02 | 19.374 | 1.407 | 0.17 | 0.6 | 0.0 | 13.77 | 7.262 | 0.0 | 18.374 | 7.511 | 61.4 |
| 3.03 | 18.559 | 1.366 | 0.17 | 0.6 | 0.0 | 13.586 | 7.36 | 0.0 | 17.559 | 7.625 | 62.72 |
| 3.04 | 16.417 | 1.336 | 0.17 | 0.6 | 0.0 | 12.288 | 8.138 | 0.0 | 15.417 | 8.471 | 67.96 |
| 3.05 | 15.295 | 1.377 | 0.17 | 0.5 | 0.0 | 11.107 | 9.003 | 0.0 | 14.295 | 9.401 | 72.13 |
| 3.06 | 11.421 | 1.305 | 0.16 | 0.5 | 0.0 | 8.752 | 11.426 | 0.0 | 10.421 | 12.115 | 86.54 |
| 3.07 | 10.299 | 1.336 | 0.16 | 0.5 | 0.0 | 7.709 | 12.972 | 0.0 | 9.299 | 13.848 | 93.32 |
| 3.08 | 10.299 | 1.264 | 0.16 | 0.5 | 0.0 | 8.148 | 12.273 | 0.0 | 9.299 | 13.104 | 91.83 |
| 3.09 | 9.381 | 1.193 | 0.16 | 0.5 | 0.0 | 7.863 | 12.717 | 0.0 | 8.381 | 13.672 | 96.02 |
| 3.10 | 8.565 | 1.111 | 0.16 | 0.5 | 0.0 | 7.709 | 12.971 | 0.0 | 7.565 | 14.049 | 99.88 |
| 3.11 | 8.26 | 0.989 | 0.16 | 0.5 | 0.0 | 8.352 | 11.973 | 0.0 | 7.26 | 13.011 | 99.01 |
| 3.12 | 8.158 | 0.887 | 0.16 | 0.5 | 0.0 | 9.197 | 10.873 | 0.0 | 7.158 | 11.831 | 96.85 |
| 3.13 | 7.954 | 0.826 | 0.16 | 0.5 | 0.0 | 9.63 | 10.385 | 0.0 | 6.954 | 11.328 | 96.58 |
| 3.14 | 7.546 | 0.755 | 0.16 | 0.5 | 0.0 | 9.995 | 10.005 | 0.0 | 6.546 | 10.971 | 97.6 |
| 3.15 | 7.342 | 0.693 | 0.16 | 0.5 | 0.0 | 10.595 | 9.439 | 0.0 | 6.342 | 10.38 | 97.13 |
| 3.16 | 7.138 | 0.663 | 0.16 | 0.5 | 0.0 | 10.766 | 9.288 | 0.0 | 6.138 | 10.247 | 97.82 |
| 3.17 | 7.138 | 0.581 | 0.16 | 0.5 | 0.0 | 12.286 | 8.14 | 0.0 | 6.138 | 8.982 | 94.42 |
| 3.18 | 7.138 | 0.53 | 0.16 | 0.5 | 0.0 | 13.468 | 7.425 | 0.0 | 6.138 | 8.196 | 92.14 |
| 3.19 | 7.342 | 0.449 | 0.16 | 0.5 | 0.0 | 16.352 | 6.115 | 0.0 | 6.342 | 6.733 | 86.47 |
| 3.20 | 7.546 | 0.398 | 0.16 | 0.5 | 0.0 | 18.96 | 5.274 | 0.0 | 6.546 | 5.792 | 82.15 |
| 3.21 | 7.852 | 0.316 | 0.16 | 0.5 | 0.0 | 24.848 | 4.024 | 0.0 | 6.852 | 4.404 | 75.11 |
| 3.22 | 8.362 | 0.275 | 0.16 | 0.5 | 0.0 | 30.407 | 3.289 | 0.0 | 7.362 | 3.579 | 69.16 |
| 3.23 | 8.973 | 0.224 | 0.16 | 0.5 | 0.0 | 40.058 | 2.496 | 0.0 | 7.973 | 2.701 | 62.17 |
| 3.24 | 9.381 | 0.204 | 0.16 | 0.5 | 0.0 | 45.985 | 2.175 | 0.0 | 8.381 | 2.345 | 58.65 |
| 3.25 | 9.483 | 0.184 | 0.16 | 0.5 | 0.0 | 51.538 | 1.94 | 0.0 | 8.483 | 2.091 | 56.61 |
| 3.26 | 9.993 | 0.173 | 0.16 | 0.5 | 0.0 | 57.763 | 1.731 | 0.0 | 8.993 | 1.859 | 53.5 |
| 3.27 | 10.401 | 0.173 | 0.16 | 0.5 | 0.0 | 60.121 | 1.663 | 0.0 | 9.401 | 1.781 | 51.86 |
| 3.28 | 10.911 | 0.173 | 0.17 | 0.5 | 0.0 | 63.069 | 1.586 | 0.0 | 9.911 | 1.692 | 49.95 |
| 3.29 | 11.013 | 0.163 | 0.17 | 0.5 | 0.0 | 67.564 | 1.48 | 0.0 | 10.013 | 1.579 | 48.81 |
| 3.30 | 10.809 | 0.153 | 0.17 | 0.5 | 0.0 | 70.647 | 1.415 | 0.0 | 9.809 | 1.512 | 48.71 |
| 3.31 | 10.911 | 0.163 | 0.16 | 0.5 | 0.0 | 66.939 | 1.494 | 0.0 | 9.911 | 1.596 | 49.17 |
| 3.32 | 10.299 | 0.173 | 0.16 | 0.5 | 0.0 | 59.532 | 1.68 | 0.0 | 9.299 | 1.802 | 52.27 |
| 3.33 | 10.299 | 0.173 | 0.16 | 0.5 | 0.0 | 59.532 | 1.68 | 0.0 | 9.299 | 1.802 | 52.27 |
| 3.34 | 10.299 | 0.173 | 0.16 | 0.5 | 0.0 | 59.532 | 1.68 | 0.0 | 9.299 | 1.802 | 52.28 |
| 3.35 | 11.829 | 0.143 | 0.16 | 0.6 | 0.0 | 82.72 | 1.209 | 0.0 | 10.829 | 1.285 | 44.53 |
| 3.36 | 12.236 | 0.153 | 0.19 | 0.6 | 0.0 | 79.974 | 1.25 | 0.0 | 11.236 | 1.327 | 44.12 |
| 3.37 | 13.256 | 0.204 | 0.20 | 0.6 | 0.0 | 64.98 | 1.539 | 0.0 | 12.256 | 1.626 | 44.76 |
| 3.38 | 13.46 | 0.204 | 0.21 | 0.6 | 0.0 | 65.98 | 1.516 | 0.0 | 12.46 | 1.6 | 44.21 |
| 3.39 | 14.582 | 0.245 | 0.17 | 0.6 | 0.0 | 59.518 | 1.68 | 0.0 | 13.582 | 1.766 | 43.69 |
| 3.40 | 14.786 | 0.245 | 0.10 | 0.6 | 0.0 | 60.351 | 1.657 | 0.0 | 13.786 | 1.741 | 43.2 |
| 3.41 | 14.276 | 0.265 | 0.12 | 0.6 | 0.0 | 53.872 | 1.856 | 0.0 | 13.276 | 1.954 | 45.49 |
| 3.42 | 15.092 | 0.316 | 0.05 | 0.6 | 0.0 | 47.759 | 2.094 | 0.0 | 14.092 | 2.198 | 45.86 |

Prova n. 3

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|-------|
| 3.43 | 16.621 | 0.357 | -0.08 | 0.6 | 0.0 | 46.557 | 2.148 | 0.0 | 15.621 | 2.245 | 44.05 |
| 3.44 | 17.233 | 0.367 | -0.29 | 0.6 | 0.0 | 46.956 | 2.13 | 0.0 | 16.233 | 2.222 | 43.15 |
| 3.45 | 16.315 | 0.387 | -0.40 | 0.6 | 0.0 | 42.158 | 2.372 | 0.0 | 15.315 | 2.482 | 45.87 |
| 3.46 | 16.111 | 0.428 | -0.51 | 0.6 | 0.0 | 37.643 | 2.657 | 0.0 | 15.111 | 2.781 | 47.83 |
| 3.47 | 16.621 | 0.408 | -0.53 | 0.6 | 0.0 | 40.738 | 2.455 | 0.0 | 15.621 | 2.567 | 45.96 |
| 3.48 | 15.907 | 0.377 | -0.55 | 0.5 | 0.0 | 42.194 | 2.37 | 0.0 | 14.907 | 2.484 | 46.44 |
| 3.49 | 16.213 | 0.387 | -0.56 | 0.6 | 0.0 | 41.894 | 2.387 | 0.0 | 15.213 | 2.499 | 46.11 |
| 3.50 | 15.805 | 0.357 | -0.57 | 0.5 | 0.0 | 44.272 | 2.259 | 0.0 | 14.805 | 2.368 | 45.89 |
| 3.51 | 15.397 | 0.326 | -0.57 | 0.5 | 0.0 | 47.23 | 2.117 | 0.0 | 14.397 | 2.223 | 45.58 |
| 3.52 | 15.397 | 0.286 | -0.58 | 0.5 | 0.0 | 53.836 | 1.858 | 0.0 | 14.397 | 1.951 | 43.8 |
| 3.53 | 15.295 | 0.255 | -0.58 | 0.5 | 0.0 | 59.98 | 1.667 | 0.0 | 14.295 | 1.752 | 42.54 |
| 3.54 | 15.092 | 0.224 | -0.58 | 0.5 | 0.0 | 67.375 | 1.484 | 0.0 | 14.092 | 1.561 | 41.39 |
| 3.55 | 14.786 | 0.194 | -0.58 | 0.5 | 0.0 | 76.216 | 1.312 | 0.0 | 13.786 | 1.381 | 40.37 |
| 3.56 | 14.072 | 0.133 | -0.57 | 0.5 | 0.0 | 105.805 | 0.945 | 0.0 | 13.072 | 0.998 | 37.88 |
| 3.57 | 13.766 | 0.112 | -0.57 | 0.5 | 0.0 | 122.911 | 0.814 | 0.0 | 12.766 | 0.86 | 36.88 |
| 3.58 | 13.256 | 0.102 | -0.57 | 0.5 | 0.0 | 129.961 | 0.769 | 0.0 | 12.256 | 0.815 | 37.18 |
| 3.59 | 12.848 | 0.082 | -0.57 | 0.5 | 0.0 | 156.683 | 0.638 | 0.0 | 11.848 | 0.678 | 36.18 |
| 3.60 | 12.236 | 0.051 | -0.56 | 0.5 | 0.0 | 239.922 | 0.417 | 0.0 | 11.236 | 0.444 | 33.92 |
| 3.61 | 12.032 | 0.051 | -0.56 | 0.5 | 0.0 | 235.922 | 0.424 | 0.0 | 11.032 | 0.452 | 34.41 |
| 3.62 | 11.727 | 0.041 | -0.56 | 0.5 | 0.0 | 286.024 | 0.35 | 0.0 | 10.727 | 0.374 | 33.67 |
| 3.63 | 11.319 | 0.041 | -0.56 | 0.5 | 0.0 | 276.073 | 0.362 | 0.0 | 10.319 | 0.388 | 34.69 |
| 3.64 | 11.013 | 0.031 | -0.56 | 0.5 | 0.0 | 355.258 | 0.281 | 0.0 | 10.013 | 0.302 | 33.76 |
| 3.65 | 11.013 | 0.031 | -0.56 | 0.5 | 0.0 | 355.258 | 0.281 | 0.0 | 10.013 | 0.302 | 33.76 |
| 3.66 | 10.605 | 0.031 | -0.55 | 0.5 | 0.0 | 342.097 | 0.292 | 0.0 | 9.605 | 0.315 | 34.83 |
| 3.67 | 10.401 | 0.02 | -0.54 | 0.5 | 0.0 | 520.05 | 0.192 | 0.0 | 9.401 | 0.208 | 33.15 |
| 3.68 | 10.401 | 0.02 | -0.54 | 0.5 | 0.0 | 520.05 | 0.192 | 0.0 | 9.401 | 0.208 | 33.15 |
| 3.69 | 10.605 | 0.02 | -0.54 | 0.5 | 0.0 | 530.25 | 0.189 | 0.0 | 9.605 | 0.203 | 32.64 |
| 3.70 | 10.605 | 0.01 | -0.53 | 0.5 | 0.0 | 1060.5 | 0.094 | 0.0 | 9.605 | 0.102 | 30.59 |
| 3.71 | 10.605 | 0.01 | -0.53 | 0.5 | 0.0 | 1060.5 | 0.094 | 0.0 | 9.605 | 0.102 | 30.59 |
| 3.72 | 10.605 | 0.01 | -0.53 | 0.5 | 0.0 | 1060.5 | 0.094 | 0.0 | 9.605 | 0.102 | 30.59 |
| 3.73 | 10.605 | 0.01 | -0.53 | 0.5 | 0.0 | 1060.5 | 0.094 | 0.0 | 9.605 | 0.102 | 30.59 |
| 3.74 | 10.605 | 0.01 | -0.53 | 0.5 | 0.0 | 1060.5 | 0.094 | 0.0 | 9.605 | 0.102 | 30.59 |
| 3.75 | 10.707 | 0.01 | -0.52 | 0.5 | 0.0 | 1070.7 | 0.093 | 0.0 | 9.707 | 0.101 | 30.37 |
| 3.76 | 10.707 | 0.01 | -0.52 | 0.5 | 0.0 | 1070.7 | 0.093 | 0.0 | 9.707 | 0.101 | 30.37 |
| 3.77 | 9.891 | 0.01 | -0.52 | 0.5 | 0.0 | 989.1 | 0.101 | 0.0 | 8.891 | 0.11 | 32.25 |
| 3.78 | 9.483 | 0.01 | -0.52 | 0.5 | 0.0 | 948.3 | 0.105 | 0.0 | 8.483 | 0.115 | 33.29 |
| 3.79 | 8.973 | 0.01 | -0.52 | 0.5 | 0.0 | 897.3 | 0.111 | 0.0 | 7.973 | 0.122 | 34.71 |
| 3.80 | 8.769 | 0.01 | -0.52 | 0.5 | 0.0 | 876.9 | 0.114 | 0.0 | 7.769 | 0.125 | 35.32 |
| 3.81 | 8.565 | 0.01 | -0.52 | 0.5 | 0.0 | 856.5 | 0.117 | 0.0 | 7.565 | 0.129 | 35.95 |
| 3.82 | 8.362 | 0.01 | -0.52 | 0.5 | 0.0 | 836.2 | 0.12 | 0.0 | 7.362 | 0.132 | 36.6 |
| 3.83 | 8.26 | 0.01 | -0.51 | 0.5 | 0.0 | 826.0 | 0.121 | 0.0 | 7.26 | 0.134 | 36.94 |
| 3.84 | 8.565 | 0.01 | -0.51 | 0.5 | 0.0 | 856.5 | 0.117 | 0.0 | 7.565 | 0.129 | 35.95 |
| 3.85 | 9.483 | 0.01 | -0.51 | 0.5 | 0.0 | 948.3 | 0.105 | 0.0 | 8.483 | 0.115 | 33.29 |
| 3.86 | 7.648 | 0.01 | -0.50 | 0.5 | 0.0 | 764.8 | 0.131 | 0.0 | 6.648 | 0.146 | 39.14 |
| 3.87 | 8.158 | 0.02 | -0.47 | 0.5 | 0.0 | 407.9 | 0.245 | 0.0 | 7.158 | 0.272 | 40.23 |
| 3.88 | 8.769 | 0.01 | -0.46 | 0.5 | 0.0 | 876.9 | 0.114 | 0.0 | 7.769 | 0.126 | 35.32 |
| 3.89 | 9.483 | 0.01 | -0.46 | 0.5 | 0.0 | 948.3 | 0.105 | 0.0 | 8.483 | 0.115 | 33.3 |
| 3.90 | 9.585 | 0.01 | -0.45 | 0.5 | 0.0 | 958.5 | 0.104 | 0.0 | 8.585 | 0.114 | 33.03 |
| 3.91 | 9.279 | 0.02 | -0.44 | 0.5 | 0.0 | 463.95 | 0.216 | 0.0 | 8.279 | 0.236 | 36.34 |
| 3.92 | 9.483 | 0.02 | -0.44 | 0.5 | 0.0 | 474.15 | 0.211 | 0.0 | 8.483 | 0.231 | 35.72 |
| 3.93 | 9.483 | 0.02 | -0.43 | 0.5 | 0.0 | 474.15 | 0.211 | 0.0 | 8.483 | 0.231 | 35.72 |
| 3.94 | 9.585 | 0.01 | -0.42 | 0.5 | 0.0 | 958.5 | 0.104 | 0.0 | 8.585 | 0.114 | 33.03 |
| 3.95 | 9.483 | 0.02 | -0.42 | 0.5 | 0.0 | 474.15 | 0.211 | 0.0 | 8.483 | 0.231 | 35.72 |
| 3.96 | 8.871 | 0.031 | -0.40 | 0.5 | 0.0 | 286.161 | 0.349 | 0.0 | 7.871 | 0.385 | 40.3 |
| 3.97 | 9.075 | 0.02 | -0.40 | 0.5 | 0.0 | 453.75 | 0.22 | 0.0 | 8.075 | 0.242 | 37 |
| 3.98 | 8.769 | 0.02 | -0.40 | 0.5 | 0.0 | 438.45 | 0.228 | 0.0 | 7.769 | 0.252 | 38.02 |
| 3.99 | 8.565 | 0.041 | -0.40 | 0.5 | 0.0 | 208.902 | 0.479 | 0.0 | 7.565 | 0.53 | 43.6 |
| 4.00 | 8.362 | 0.02 | -0.40 | 0.5 | 0.0 | 418.1 | 0.239 | 0.0 | 7.362 | 0.265 | 39.47 |
| 4.01 | 8.056 | 0.01 | -0.39 | 0.5 | 0.0 | 805.6 | 0.124 | 0.0 | 7.056 | 0.138 | 37.66 |
| 4.02 | 7.648 | 0.01 | -0.39 | 0.5 | 0.0 | 764.8 | 0.131 | 0.0 | 6.648 | 0.147 | 39.16 |
| 4.03 | 7.138 | 0.01 | -0.39 | 0.5 | 0.0 | 713.8 | 0.14 | 0.0 | 6.138 | 0.159 | 41.24 |
| 4.04 | 6.934 | 0.01 | -0.39 | 0.5 | 0.0 | 693.4 | 0.144 | 0.0 | 5.934 | 0.164 | 42.15 |
| 4.05 | 7.138 | 0.01 | -0.38 | 0.5 | 0.0 | 713.8 | 0.14 | 0.0 | 6.138 | 0.159 | 41.24 |
| 4.06 | 8.056 | 0.01 | -0.38 | 0.5 | 0.0 | 805.6 | 0.124 | 0.0 | 7.056 | 0.138 | 37.66 |
| 4.07 | 8.464 | 0.01 | -0.38 | 0.5 | 0.0 | 846.4 | 0.118 | 0.0 | 7.464 | 0.131 | 36.29 |
| 4.08 | 9.279 | 0.01 | -0.38 | 0.5 | 0.0 | 927.9 | 0.108 | 0.0 | 8.279 | 0.118 | 33.86 |

Prova n. 3

| | | | | | | | | | | | |
|------|---------|-------|-------|-----|-----|----------|-------|-----|---------|-------|-------|
| 4.09 | 10.095 | 0.01 | -0.37 | 0.5 | 0.0 | 1009.5 | 0.099 | 0.0 | 9.095 | 0.108 | 31.77 |
| 4.10 | 12.236 | 0.01 | -0.36 | 0.5 | 0.0 | 1223.6 | 0.082 | 0.0 | 11.236 | 0.088 | 27.44 |
| 4.11 | 16.009 | 0.01 | -0.36 | 0.6 | 0.0 | 1600.9 | 0.062 | 0.0 | 15.009 | 0.066 | 22.3 |
| 4.12 | 21.006 | 0.01 | -0.36 | 0.6 | 0.0 | 2100.6 | 0.048 | 0.0 | 20.006 | 0.05 | 18.02 |
| 4.13 | 28.959 | 0.01 | -0.36 | 0.6 | 0.0 | 2895.9 | 0.035 | 0.0 | 27.959 | 0.036 | 13.95 |
| 4.14 | 83.819 | 0.01 | -0.31 | 0.7 | 0.0 | 8381.9 | 0.012 | 0.0 | 82.819 | 0.012 | 6.15 |
| 4.15 | 140.005 | 0.082 | 0.01 | 0.8 | 0.0 | 1707.378 | 0.059 | 0.0 | 139.005 | 0.059 | 0.69 |
| 4.16 | 83.717 | 0.01 | 0.13 | 0.7 | 0.0 | 8371.7 | 0.012 | 0.0 | 82.717 | 0.012 | 6.16 |
| 4.17 | 66.892 | 0.204 | 0.15 | 0.7 | 0.0 | 327.902 | 0.305 | 0.0 | 65.892 | 0.309 | 8.06 |
| 4.18 | 93.71 | 0.275 | 0.13 | 0.7 | 0.0 | 340.764 | 0.293 | 0.0 | 92.71 | 0.296 | 5.29 |
| 4.19 | 96.362 | 0.061 | 0.16 | 0.6 | 0.0 | 1579.705 | 0.063 | 0.0 | 95.362 | 0.064 | 2.71 |
| 4.20 | 84.737 | 0.235 | 0.15 | 0.6 | 0.0 | 360.583 | 0.277 | 0.0 | 83.737 | 0.28 | 5.84 |
| 4.21 | 72.195 | 0.214 | 0.16 | 0.5 | 0.0 | 337.36 | 0.296 | 0.0 | 71.195 | 0.3 | 7.32 |
| 4.22 | 47.926 | 0.051 | 0.16 | 0.5 | 0.0 | 939.725 | 0.106 | 0.0 | 46.926 | 0.108 | 8.48 |
| 4.23 | 53.024 | 0.479 | 0.16 | 0.5 | 0.0 | 110.697 | 0.903 | 0.0 | 52.024 | 0.918 | 16.28 |
| 4.24 | 55.472 | 0.551 | 0.16 | 0.6 | 0.0 | 100.675 | 0.993 | 0.0 | 54.472 | 1.009 | 16.49 |
| 4.25 | 61.896 | 0.632 | 0.15 | 0.7 | 0.0 | 97.937 | 1.021 | 0.0 | 60.896 | 1.036 | 15.5 |
| 4.26 | 68.626 | 0.602 | 0.16 | 0.7 | 0.0 | 113.997 | 0.877 | 0.0 | 67.626 | 0.889 | 13.32 |
| 4.27 | 68.626 | 0.846 | 0.16 | 0.7 | 0.0 | 81.118 | 1.233 | 0.0 | 67.626 | 1.249 | 15.9 |
| 4.28 | 68.728 | 1.02 | 0.16 | 0.8 | 0.0 | 67.38 | 1.484 | 0.0 | 67.728 | 1.503 | 17.48 |
| 4.29 | 57.307 | 1.152 | 0.16 | 0.9 | 0.0 | 49.746 | 2.01 | 0.0 | 56.307 | 2.042 | 22.58 |
| 4.30 | 43.031 | 1.897 | 0.15 | 0.9 | 0.0 | 22.684 | 4.408 | 0.0 | 42.031 | 4.501 | 36.86 |
| 4.31 | 40.482 | 1.897 | 0.16 | 0.9 | 0.0 | 21.34 | 4.686 | 0.0 | 39.482 | 4.791 | 38.81 |
| 4.32 | 40.482 | 1.897 | 0.16 | 0.9 | 0.0 | 21.34 | 4.686 | 0.0 | 39.482 | 4.791 | 38.81 |
| 4.33 | 40.482 | 1.897 | 0.16 | 0.9 | 0.0 | 21.34 | 4.686 | 0.0 | 39.482 | 4.792 | 38.81 |
| 4.34 | 65.567 | 1.091 | 0.13 | 1.0 | 0.0 | 60.098 | 1.664 | 0.0 | 64.567 | 1.687 | 19.07 |
| 4.35 | 72.909 | 1.122 | 0.14 | 1.0 | 0.0 | 64.981 | 1.539 | 0.0 | 71.909 | 1.558 | 17.18 |
| 4.36 | 81.474 | 1.213 | 0.13 | 1.0 | 0.0 | 67.167 | 1.489 | 0.0 | 80.474 | 1.505 | 15.74 |
| 4.37 | 85.859 | 1.438 | 0.14 | 1.0 | 0.0 | 59.707 | 1.675 | 0.0 | 84.859 | 1.693 | 16.27 |
| 4.38 | 88.408 | 1.254 | 0.16 | 1.0 | 0.0 | 70.501 | 1.418 | 0.0 | 87.408 | 1.433 | 14.53 |
| 4.39 | 104.927 | 1.428 | 0.17 | 1.0 | 0.0 | 73.478 | 1.361 | 0.0 | 103.927 | 1.373 | 12.65 |
| 4.40 | 155.606 | 1.213 | 0.01 | 1.0 | 0.0 | 128.282 | 0.78 | 0.0 | 154.606 | 0.784 | 6.07 |
| 4.41 | 162.336 | 1.213 | 0.00 | 1.2 | 0.0 | 133.83 | 0.747 | 0.0 | 161.336 | 0.751 | 5.59 |
| 4.42 | 135.416 | 0.897 | 0.09 | 1.2 | 0.0 | 150.965 | 0.662 | 0.0 | 134.416 | 0.667 | 6.12 |
| 4.43 | 118.387 | 0.347 | 0.09 | 1.2 | 0.0 | 341.173 | 0.293 | 0.0 | 117.387 | 0.295 | 3.75 |
| 4.44 | 120.631 | 0.184 | 0.09 | 1.2 | 0.0 | 655.603 | 0.153 | 0.0 | 119.631 | 0.154 | 2.16 |
| 4.45 | 127.666 | 0.214 | 0.11 | 1.0 | 0.0 | 596.57 | 0.168 | 0.0 | 126.666 | 0.169 | 2.01 |
| 4.46 | 147.653 | 0.286 | 0.12 | 1.0 | 0.0 | 516.269 | 0.194 | 0.0 | 146.653 | 0.195 | 1.52 |
| 4.47 | 189.97 | 0.347 | 0.12 | 1.0 | 0.0 | 547.464 | 0.183 | 0.0 | 188.97 | 0.184 | 0.28 |
| 4.48 | 239.12 | 0.428 | 0.13 | 1.0 | 0.0 | 558.692 | 0.179 | 0.0 | 238.12 | 0.18 | 0 |
| 4.49 | 281.947 | 0.52 | 0.12 | 1.0 | 0.0 | 542.206 | 0.184 | 0.0 | 280.947 | 0.185 | 0 |
| 4.50 | 319.574 | 0.602 | 0.12 | 1.0 | 0.0 | 530.854 | 0.188 | 0.0 | 318.574 | 0.189 | 0 |
| 4.51 | 350.369 | 0.632 | 0.12 | 1.1 | 0.0 | 554.381 | 0.18 | 0.0 | 349.369 | 0.181 | 0 |
| 4.52 | 392.483 | 0.704 | 0.14 | 1.1 | 0.0 | 557.504 | 0.179 | 0.0 | 391.483 | 0.18 | 0 |
| 4.53 | 423.991 | 0.785 | 0.14 | 1.1 | 0.0 | 540.116 | 0.185 | 0.0 | 422.991 | 0.186 | 0 |
| 4.54 | 471.407 | 0.846 | 0.14 | 1.2 | 0.0 | 557.219 | 0.179 | 0.0 | 470.407 | 0.18 | 0 |

Prova n. 3

STIMA PARAMETRI GEOTECNICI Nr.3

TERRENI COESIVI

Coesione non drenata (Kg/cm²)

| | Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Lunne & Eide | Sunda Relazione Sperimentale | Lunne T.-Kleven A. 1981 | Kjekstad. 1978 - Lunne, Robertson and Powell 1977 | Lunne, Robertson and Powell 1977 | Terzaghi |
|----------|------------------|--------------------------|--------------------------|--------------|------------------------------|-------------------------|---|----------------------------------|----------|
| Strato 1 | 0.30 | 133.87 | 96.617 | 6.47 | 4.17 | 8.92 | 7.87 | 7.04 | 6.69 |
| Strato 2 | 1.10 | 34.948 | 27.046 | 1.68 | 2.02 | 2.32 | 2.05 | 1.83 | 1.75 |
| Strato 3 | 2.46 | 129.633 | 101.304 | 6.24 | 4.11 | 8.62 | 7.60 | 6.80 | 6.48 |
| Strato 4 | 4.05 | 28.379 | 20.848 | 1.34 | 1.70 | 1.85 | 1.63 | 1.46 | 1.42 |
| Strato 5 | 4.54 | 224.79 | 159.159 | 10.82 | 4.90 | 14.92 | 13.17 | 11.78 | 11.24 |

Modulo Edometrico (Kg/cm²)

| | Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Mitchell & Gardner (1975) | Metodo generale del modulo edometrico | Buisman | Buisman Sanglerat |
|----------|------------------|--------------------------|--------------------------|---------------------------|---------------------------------------|---------|-------------------|
| Strato 1 | 0.30 | 133.87 | 96.617 | 334.67 | 267.74 | 401.61 | 200.80 |
| Strato 2 | 1.10 | 34.948 | 27.046 | 87.37 | 69.89 | 104.84 | 104.84 |
| Strato 3 | 2.46 | 129.633 | 101.304 | 324.08 | 259.26 | 388.90 | 194.45 |
| Strato 4 | 4.05 | 28.379 | 20.848 | 70.95 | 56.76 | 85.14 | 85.14 |
| Strato 5 | 4.54 | 224.79 | 159.159 | 561.97 | 449.57 | 674.37 | 337.18 |

Modulo di deformazione non drenato Eu (Kg/cm²)

| | Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Cancelli 1980 | Ladd 1977 (30) |
|----------|------------------|--------------------------|--------------------------|---------------|----------------|
| Strato 1 | 0.30 | 133.87 | 96.617 | 5018.83 | 200.70 |
| Strato 2 | 1.10 | 34.948 | 27.046 | 1304.96 | 52.50 |
| Strato 3 | 2.46 | 129.633 | 101.304 | 4846.78 | 194.40 |
| Strato 4 | 4.05 | 28.379 | 20.848 | 1037.93 | 42.60 |
| Strato 5 | 4.54 | 224.79 | 159.159 | 8395.18 | 337.20 |

Modulo di deformazione a taglio

| | Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Modulo di deformazione a taglio (Kg/cm ²) |
|----------|------------------|--------------------------|--------------------------|-----------------|---|
| Strato 1 | 0.30 | 133.87 | 96.617 | Imai & Tomauchi | 557.91 |
| Strato 2 | 1.10 | 34.948 | 27.046 | Imai & Tomauchi | 245.58 |
| Strato 3 | 2.46 | 129.633 | 101.304 | Imai & Tomauchi | 547.05 |
| Strato 4 | 4.05 | 28.379 | 20.848 | Imai & Tomauchi | 216.24 |
| Strato 5 | 4.54 | 224.79 | 159.159 | Imai & Tomauchi | 765.76 |

Grado di sovraconsolidazione

| | Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Stress-History |
|----------|------------------|--------------------------|--------------------------|----------------|
| Strato 1 | 0.30 | 133.87 | 96.617 | >9 |
| Strato 2 | 1.10 | 34.948 | 27.046 | 5.45 |
| Strato 3 | 2.46 | 129.633 | 101.304 | 7.82 |
| Strato 4 | 4.05 | 28.379 | 20.848 | 0.94 |
| Strato 5 | 4.54 | 224.79 | 159.159 | 5.69 |

Peso unità di volume

| | Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume (t/m ³) |
|----------|------------------|--------------------------|--------------------------|--------------|--|
| Strato 1 | 0.30 | 133.87 | 96.617 | Meyerhof | 2.29 |
| Strato 2 | 1.10 | 34.948 | 27.046 | Meyerhof | 2.07 |
| Strato 3 | 2.46 | 129.633 | 101.304 | Meyerhof | 2.29 |
| Strato 4 | 4.05 | 28.379 | 20.848 | Meyerhof | 2.03 |
| Strato 5 | 4.54 | 224.79 | 159.159 | Meyerhof | 2.38 |

Prova n. 3

Peso unità di volume saturo

| | Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume saturo (t/m ³) |
|----------|------------------|--------------------------|--------------------------|--------------|---|
| Strato 1 | 0.30 | 133.87 | 96.617 | Meyerhof | 2.37 |
| Strato 2 | 1.10 | 34.948 | 27.046 | Meyerhof | 2.15 |
| Strato 3 | 2.46 | 129.633 | 101.304 | Meyerhof | 2.37 |
| Strato 4 | 4.05 | 28.379 | 20.848 | Meyerhof | 2.11 |
| Strato 5 | 4.54 | 224.79 | 159.159 | Meyerhof | 2.46 |

TERRENI INCOERENTI

Densità relativa (%)

| | Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Baldi 1978 - Schmertman n 1976 | Schmertman n | Harman | Lancellotta 1983 | Jamiolkowski 1985 |
|----------|------------------|--------------------------|--------------------------|--------------------------------|--------------|--------|------------------|-------------------|
| Strato 1 | 0.30 | 133.87 | 96.617 | 100 | 100 | 100 | 100 | 100 |
| Strato 2 | 1.10 | 34.948 | 27.046 | 63.07 | 83.48 | 81.67 | 63.87 | 91.72 |
| Strato 3 | 2.46 | 129.633 | 101.304 | 86.82 | 100 | 100 | 87.82 | 100 |
| Strato 4 | 4.05 | 28.379 | 20.848 | 35.14 | 34.21 | 37.28 | 35.71 | 41.37 |
| Strato 5 | 4.54 | 224.79 | 159.159 | 90.12 | 100 | 100 | 91.15 | 92.93 |

Angolo di resistenza al taglio (°)

| | Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Durgunoglou-Mitchell 1973 | Caquot | Koppejan | De Beer | Schmertmann | Robertson & Campanella 1983 | Herminier | Meyerhof 1951 |
|----------|------------------|--------------------------|--------------------------|---------------------------|--------|----------|---------|-------------|-----------------------------|-----------|---------------|
| Strato 1 | 0.30 | 133.87 | 96.617 | 45 | 45 | 45 | 45 | 42 | 45 | 15 | 45 |
| Strato 2 | 1.10 | 34.948 | 27.046 | 40.03 | 36.87 | 34.23 | 31.88 | 39.69 | 44.92 | 34.86 | 32.69 |
| Strato 3 | 2.46 | 129.633 | 101.304 | 42.04 | 38.66 | 36.11 | 33.59 | 42 | 45 | 38.92 | 45 |
| Strato 4 | 4.05 | 28.379 | 20.848 | 32.06 | 28.16 | 25.08 | 23.52 | 32.79 | 35.58 | 23.92 | 29.74 |
| Strato 5 | 4.54 | 224.79 | 159.159 | 40.77 | 37.08 | 34.46 | 32.08 | 42 | 45 | 35.56 | 45 |

Modulo di Young (Kg/cm²)

| | Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Schmertmann | Robertson & Campanella (1983) | ISOPT-1 1988 Ey(50) |
|----------|------------------|--------------------------|--------------------------|-------------|-------------------------------|---------------------|
| Strato 1 | 0.30 | 133.87 | 96.617 | 334.67 | 267.74 | 535.48 |
| Strato 2 | 1.10 | 34.948 | 27.046 | 87.37 | 69.90 | 209.07 |
| Strato 3 | 2.46 | 129.633 | 101.304 | 324.08 | 259.27 | 518.53 |
| Strato 4 | 4.05 | 28.379 | 20.848 | 70.95 | 56.76 | 337.56 |
| Strato 5 | 4.54 | 224.79 | 159.159 | 561.97 | 449.58 | 899.16 |

Modulo Edometrico (Kg/cm²)

| | Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Robertson & Campanella da Schmertmann | Lunne-Christoffersen 1983 - Robertson and Powell 1997 | Kulhawy-Mayne 1990 | Mitchell & Gardner 1975 | Buisman - Sanglerat |
|----------|------------------|--------------------------|--------------------------|---------------------------------------|---|--------------------|-------------------------|---------------------|
| Strato 1 | 0.30 | 133.87 | 96.617 | 83.42 | 282.56 | 1095.89 | 200.80 | 200.80 |
| Strato 2 | 1.10 | 34.948 | 27.046 | 68.74 | 137.09 | 278.84 | 69.90 | 104.84 |
| Strato 3 | 2.46 | 129.633 | 101.304 | 87.40 | 274.25 | 1058.04 | 194.45 | 194.45 |
| Strato 4 | 4.05 | 28.379 | 20.848 | 36.08 | 111.32 | 220.10 | 56.76 | 141.90 |
| Strato 5 | 4.54 | 224.79 | 159.159 | 96.49 | 460.89 | 1838.69 | 337.18 | 337.18 |

Modulo di deformazione a taglio

| | Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | G (Kg/cm ²) |
|----------|------------------|--------------------------|--------------------------|-----------------|-------------------------|
| Strato 1 | 0.30 | 133.87 | 96.617 | Imai & Tomauchi | 557.91 |
| Strato 2 | 1.10 | 34.948 | 27.046 | Imai & Tomauchi | 245.58 |
| Strato 3 | 2.46 | 129.633 | 101.304 | Imai & Tomauchi | 547.05 |
| Strato 4 | 4.05 | 28.379 | 20.848 | Imai & Tomauchi | 216.24 |
| Strato 5 | 4.54 | 224.79 | 159.159 | Imai & Tomauchi | 765.76 |

Prova n. 3

Grado di sovraconsolidazione

| | Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Stress-History | Piacentini Righi 1978 | Larsson 1991 S.G.I. | Ladd e Foot 1977 |
|----------|------------------|--------------------------|--------------------------|----------------|-----------------------|---------------------|------------------|
| Strato 1 | 0.30 | 133.87 | 96.617 | >9 | >9 | <0.5 | >9 |
| Strato 2 | 1.10 | 34.948 | 27.046 | 5.45 | >9 | 0.74 | >9 |
| Strato 3 | 2.46 | 129.633 | 101.304 | 7.82 | >9 | 0.54 | >9 |
| Strato 4 | 4.05 | 28.379 | 20.848 | 0.94 | >9 | <0.5 | >9 |
| Strato 5 | 4.54 | 224.79 | 159.159 | 5.69 | >9 | 0.7 | >9 |

Modulo di reazione Ko

| | Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Ko |
|----------|------------------|--------------------------|--------------------------|------------------------|------|
| Strato 1 | 0.30 | 133.87 | 96.617 | Kulhawy & Mayne (1990) | 0.00 |
| Strato 2 | 1.10 | 34.948 | 27.046 | Kulhawy & Mayne (1990) | 1.05 |
| Strato 3 | 2.46 | 129.633 | 101.304 | Kulhawy & Mayne (1990) | 1.33 |
| Strato 4 | 4.05 | 28.379 | 20.848 | Kulhawy & Mayne (1990) | 0.34 |
| Strato 5 | 4.54 | 224.79 | 159.159 | Kulhawy & Mayne (1990) | 1.08 |

Fattori di compressibilità C Crm

| | Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | C | Crm |
|----------|------------------|--------------------------|--------------------------|---------|---------|
| Strato 1 | 0.30 | 133.87 | 96.617 | 0.09427 | 0.01225 |
| Strato 2 | 1.10 | 34.948 | 27.046 | 0.1162 | 0.01511 |
| Strato 3 | 2.46 | 129.633 | 101.304 | 0.09407 | 0.01223 |
| Strato 4 | 4.05 | 28.379 | 20.848 | 0.11387 | 0.0148 |
| Strato 5 | 4.54 | 224.79 | 159.159 | 0.16535 | 0.0215 |

Peso unità di volume

| | Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume (t/m ³) |
|----------|------------------|--------------------------|--------------------------|--------------|--|
| Strato 1 | 0.30 | 133.87 | 96.617 | Meyerhof | 1.80 |
| Strato 2 | 1.10 | 34.948 | 27.046 | Meyerhof | 1.80 |
| Strato 3 | 2.46 | 129.633 | 101.304 | Meyerhof | 1.80 |
| Strato 4 | 4.05 | 28.379 | 20.848 | Meyerhof | 1.80 |
| Strato 5 | 4.54 | 224.79 | 159.159 | Meyerhof | 1.80 |

Peso unità di volume saturo

| | Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume saturo (t/m ³) |
|----------|------------------|--------------------------|--------------------------|--------------|---|
| Strato 1 | 0.30 | 133.87 | 96.617 | Meyerhof | 2.10 |
| Strato 2 | 1.10 | 34.948 | 27.046 | Meyerhof | 2.10 |
| Strato 3 | 2.46 | 129.633 | 101.304 | Meyerhof | 2.10 |
| Strato 4 | 4.05 | 28.379 | 20.848 | Meyerhof | 2.10 |
| Strato 5 | 4.54 | 224.79 | 159.159 | Meyerhof | 2.10 |

Liquefazione - Accelerazione sismica massima (g)=0

| | Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Fattore di sicurezza a liquefazione |
|----------|------------------|--------------------------|--------------------------|------------------------|-------------------------------------|
| Strato 1 | 0.30 | 133.87 | 96.617 | Robertson & Wride 1997 | 0 |
| Strato 2 | 1.10 | 34.948 | 27.046 | Robertson & Wride 1997 | 0 |
| Strato 3 | 2.46 | 129.633 | 101.304 | Robertson & Wride 1997 | 0 |
| Strato 4 | 4.05 | 28.379 | 20.848 | Robertson & Wride 1997 | 0 |
| Strato 5 | 4.54 | 224.79 | 159.159 | Robertson & Wride 1997 | 0 |

Permeabilità

| | Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Permeabilità (cm/s) |
|----------|------------------|--------------------------|--------------------------|-----------------------|---------------------|
| Strato 1 | 0.30 | 133.87 | 96.617 | Piacentini-Righi 1988 | 1E-11 |
| Strato 2 | 1.10 | 34.948 | 27.046 | Piacentini-Righi 1988 | 1E-11 |
| Strato 3 | 2.46 | 129.633 | 101.304 | Piacentini-Righi 1988 | 1E-11 |
| Strato 4 | 4.05 | 28.379 | 20.848 | Piacentini-Righi 1988 | 1E-11 |
| Strato 5 | 4.54 | 224.79 | 159.159 | Piacentini-Righi 1988 | 1E-11 |

Prova n. 3

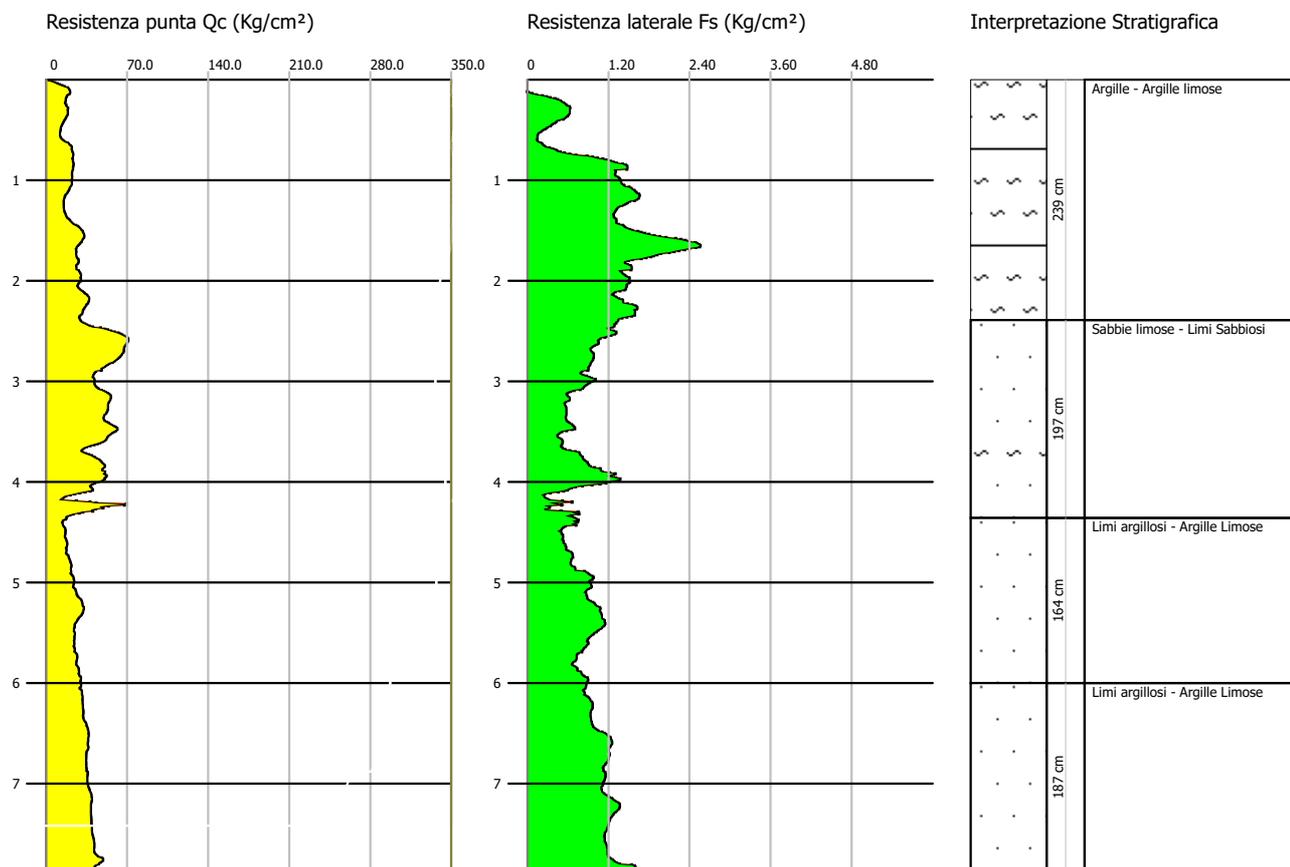
Coefficiente di consolidazione

| | Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Coefficiente di consolidazione (cm ² /s) |
|----------|---------------------|-----------------------------|-----------------------------|-----------------------|---|
| Strato 1 | 0.30 | 133.87 | 96.617 | Piacentini-Righi 1988 | 4.0161E-06 |
| Strato 2 | 1.10 | 34.948 | 27.046 | Piacentini-Righi 1988 | 1.04844E-06 |
| Strato 3 | 2.46 | 129.633 | 101.304 | Piacentini-Righi 1988 | 3.88899E-06 |
| Strato 4 | 4.05 | 28.379 | 20.848 | Piacentini-Righi 1988 | 8.5137E-07 |
| Strato 5 | 4.54 | 224.79 | 159.159 | Piacentini-Righi 1988 | 6.7437E-06 |

Probe CPTU - Piezocone Nr.4
Strumento utilizzato PAGANI 200 kN (CPTU)

Committente: Comune di Livorno
 Cantiere: Via delle Sorgenti - Livorno
 Località: Via delle Sorgenti - Livorno

Data: 08/01/2019



Prova n. 4

PROVA CPTU4_MS2

Committente: Comune di Livorno
 Strumento utilizzato: PAGANI 200 kN (CPTU)
 Prova eseguita in data: 08/01/2019
 Profondità prova: 7.87 mt
 Località: Via delle Sorgenti - Livorno

RESISTENZE / LITOLOGIE

Profondità
 qc Resistenza punta (Kg/cm²);
 fs Resistenza laterale (Kg/cm²);
 Tilt Inclinazione (°)
 Temp Temperatura (°)
 Fr fs/qcx100 (Schmertmann)
 qcn qc normalizzata (Kg/cm²);
 fsn fs normalizzato (Kg/cm²);
 U2 Pressione neutrale intorno al cono (Kg/cm²);
 Uo Pressione neutrale rilevata (Kg/cm²);
 Fc Contenuto in materiale fine(%)

| Profondità | qc | fs | U2 | Tilt | Temp | qc/fs | Fr | Uo | qcn | fsn | FC% |
|------------|--------|------|-------|------|------|--------|-------|-----|--------|-------|--------|
| 0.01 | 1.632 | 0.0 | 0.01 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.632 | 0.0 | 138.18 |
| 0.02 | 4.895 | 0.0 | 0.00 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 3.895 | 0.0 | 67.48 |
| 0.03 | 7.138 | 0.0 | 0.00 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 6.138 | 0.0 | 54.95 |
| 0.04 | 9.279 | 0.0 | 0.00 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 8.279 | 0.0 | 47.66 |
| 0.05 | 11.319 | 0.0 | 0.00 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 10.319 | 0.0 | 42.76 |
| 0.06 | 13.562 | 0.0 | -0.01 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 12.562 | 0.0 | 38.69 |
| 0.07 | 15.703 | 0.0 | -0.14 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 14.703 | 0.0 | 35.64 |
| 0.08 | 18.253 | 0.0 | -0.02 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 17.253 | 0.0 | 32.72 |
| 0.09 | 18.966 | 0.0 | -0.04 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 17.966 | 0.0 | 32.01 |
| 0.10 | 19.476 | 0.0 | -0.02 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 18.476 | 0.0 | 31.52 |
| 0.11 | 20.088 | 0.0 | -0.03 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 19.088 | 0.0 | 30.96 |
| 0.12 | 20.292 | 0.0 | -0.05 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 19.292 | 0.0 | 30.78 |
| 0.13 | 20.19 | 0.02 | -0.07 | 0.2 | 0.0 | 1009.5 | 0.099 | 0.0 | 19.19 | 0.099 | 18.91 |

Prova n. 4

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|-------|
| 0.14 | 19.578 | 0.071 | -0.03 | 0.2 | 0.0 | 275.746 | 0.363 | 0.0 | 18.578 | 0.363 | 23.85 |
| 0.15 | 18.049 | 0.133 | 0.00 | 0.2 | 0.0 | 135.707 | 0.737 | 0.0 | 17.049 | 0.738 | 30.18 |
| 0.16 | 17.437 | 0.224 | 0.03 | 0.3 | 0.0 | 77.844 | 1.285 | 0.0 | 16.437 | 1.287 | 36.2 |
| 0.17 | 17.131 | 0.286 | -0.12 | 0.3 | 0.0 | 59.899 | 1.669 | 0.0 | 16.131 | 1.673 | 39.59 |
| 0.18 | 16.621 | 0.337 | -0.11 | 0.3 | 0.0 | 49.32 | 2.028 | 0.0 | 15.621 | 2.032 | 42.7 |
| 0.19 | 16.621 | 0.408 | -0.14 | 0.2 | 0.0 | 40.738 | 2.455 | 0.0 | 15.621 | 2.46 | 45.34 |
| 0.20 | 16.417 | 0.449 | -0.20 | 0.3 | 0.0 | 36.563 | 2.735 | 0.0 | 15.417 | 2.742 | 47.2 |
| 0.21 | 16.519 | 0.489 | -0.26 | 0.2 | 0.0 | 33.781 | 2.96 | 0.0 | 15.519 | 2.968 | 48.27 |
| 0.22 | 16.009 | 0.5 | -0.16 | 0.2 | 0.0 | 32.018 | 3.123 | 0.0 | 15.009 | 3.132 | 49.8 |
| 0.23 | 15.805 | 0.53 | -0.16 | 0.2 | 0.0 | 29.821 | 3.353 | 0.0 | 14.805 | 3.363 | 51.24 |
| 0.24 | 15.907 | 0.551 | -0.16 | 0.2 | 0.0 | 28.869 | 3.464 | 0.0 | 14.907 | 3.474 | 51.62 |
| 0.25 | 16.825 | 0.571 | -0.37 | 0.2 | 0.0 | 29.466 | 3.394 | 0.0 | 15.825 | 3.404 | 50.02 |
| 0.26 | 16.825 | 0.581 | -0.06 | 0.2 | 0.0 | 28.959 | 3.453 | 0.0 | 15.825 | 3.464 | 50.31 |
| 0.27 | 17.335 | 0.622 | -0.09 | 0.2 | 0.0 | 27.87 | 3.588 | 0.0 | 16.335 | 3.599 | 50.27 |
| 0.28 | 18.559 | 0.632 | -0.34 | 0.2 | 0.0 | 29.366 | 3.405 | 0.0 | 17.559 | 3.415 | 47.94 |
| 0.29 | 18.151 | 0.622 | -0.55 | 0.2 | 0.0 | 29.182 | 3.427 | 0.0 | 17.151 | 3.438 | 48.52 |
| 0.30 | 17.947 | 0.622 | -0.51 | 0.2 | 0.0 | 28.854 | 3.466 | 0.0 | 16.947 | 3.477 | 48.95 |
| 0.31 | 18.253 | 0.622 | -0.50 | 0.2 | 0.0 | 29.346 | 3.408 | 0.0 | 17.253 | 3.419 | 48.31 |
| 0.32 | 18.355 | 0.622 | -0.49 | 0.2 | 0.0 | 29.51 | 3.389 | 0.0 | 17.355 | 3.4 | 48.1 |
| 0.33 | 18.355 | 0.622 | -0.48 | 0.2 | 0.0 | 29.51 | 3.389 | 0.0 | 17.355 | 3.401 | 48.11 |
| 0.34 | 18.253 | 0.612 | -0.47 | 0.2 | 0.0 | 29.825 | 3.353 | 0.0 | 17.253 | 3.365 | 48.06 |
| 0.35 | 17.845 | 0.602 | -0.47 | 0.2 | 0.0 | 29.643 | 3.373 | 0.0 | 16.845 | 3.387 | 48.65 |
| 0.36 | 17.335 | 0.591 | -0.46 | 0.2 | 0.0 | 29.332 | 3.409 | 0.0 | 16.335 | 3.423 | 49.45 |
| 0.37 | 16.825 | 0.571 | -0.46 | 0.2 | 0.0 | 29.466 | 3.394 | 0.0 | 15.825 | 3.408 | 50.04 |
| 0.38 | 16.417 | 0.551 | -0.46 | 0.2 | 0.0 | 29.795 | 3.356 | 0.0 | 15.417 | 3.372 | 50.42 |
| 0.39 | 16.111 | 0.53 | -0.46 | 0.2 | 0.0 | 30.398 | 3.29 | 0.0 | 15.111 | 3.305 | 50.52 |
| 0.40 | 15.295 | 0.469 | -0.46 | 0.2 | 0.0 | 32.612 | 3.066 | 0.0 | 14.295 | 3.082 | 50.59 |
| 0.41 | 14.888 | 0.428 | -0.45 | 0.2 | 0.0 | 34.785 | 2.875 | 0.0 | 13.888 | 2.89 | 50.2 |
| 0.42 | 14.378 | 0.418 | -0.45 | 0.2 | 0.0 | 34.397 | 2.907 | 0.0 | 13.378 | 2.924 | 51.19 |
| 0.43 | 13.97 | 0.398 | -0.45 | 0.2 | 0.0 | 35.101 | 2.849 | 0.0 | 12.97 | 2.866 | 51.56 |
| 0.44 | 13.46 | 0.367 | -0.44 | 0.2 | 0.0 | 36.676 | 2.727 | 0.0 | 12.46 | 2.744 | 51.77 |
| 0.45 | 13.154 | 0.347 | -0.43 | 0.2 | 0.0 | 37.908 | 2.638 | 0.0 | 12.154 | 2.656 | 51.81 |
| 0.46 | 12.746 | 0.337 | -0.41 | 0.2 | 0.0 | 37.822 | 2.644 | 0.0 | 11.746 | 2.663 | 52.62 |
| 0.47 | 12.338 | 0.296 | -0.36 | 0.3 | 0.0 | 41.682 | 2.399 | 0.0 | 11.338 | 2.417 | 51.94 |
| 0.48 | 12.134 | 0.275 | -0.33 | 0.2 | 0.0 | 44.124 | 2.266 | 0.0 | 11.134 | 2.284 | 51.51 |
| 0.49 | 12.032 | 0.255 | -0.31 | 0.2 | 0.0 | 47.184 | 2.119 | 0.0 | 11.032 | 2.136 | 50.75 |
| 0.50 | 11.93 | 0.224 | -0.27 | 0.3 | 0.0 | 53.259 | 1.878 | 0.0 | 10.93 | 1.893 | 49.26 |
| 0.51 | 11.727 | 0.204 | -0.20 | 0.2 | 0.0 | 57.485 | 1.74 | 0.0 | 10.727 | 1.754 | 48.65 |
| 0.52 | 11.625 | 0.184 | -0.17 | 0.2 | 0.0 | 63.179 | 1.583 | 0.0 | 10.625 | 1.597 | 47.62 |
| 0.53 | 11.523 | 0.153 | -0.15 | 0.2 | 0.0 | 75.314 | 1.328 | 0.0 | 10.523 | 1.34 | 45.65 |
| 0.54 | 11.523 | 0.153 | -0.14 | 0.3 | 0.0 | 75.314 | 1.328 | 0.0 | 10.523 | 1.34 | 45.65 |
| 0.55 | 11.523 | 0.143 | -0.14 | 0.3 | 0.0 | 80.58 | 1.241 | 0.0 | 10.523 | 1.253 | 44.85 |
| 0.56 | 11.523 | 0.143 | -0.12 | 0.3 | 0.0 | 80.58 | 1.241 | 0.0 | 10.523 | 1.253 | 44.85 |
| 0.57 | 11.829 | 0.143 | -0.10 | 0.2 | 0.0 | 82.72 | 1.209 | 0.0 | 10.829 | 1.22 | 43.93 |
| 0.58 | 12.134 | 0.143 | -0.08 | 0.3 | 0.0 | 84.853 | 1.179 | 0.0 | 11.134 | 1.19 | 43.05 |
| 0.59 | 12.848 | 0.133 | -0.07 | 0.2 | 0.0 | 96.602 | 1.035 | 0.0 | 11.848 | 1.044 | 40.33 |
| 0.60 | 13.664 | 0.133 | -0.05 | 0.2 | 0.0 | 102.737 | 0.973 | 0.0 | 12.664 | 0.982 | 38.34 |
| 0.61 | 14.786 | 0.143 | -0.04 | 0.2 | 0.0 | 103.399 | 0.967 | 0.0 | 13.786 | 0.975 | 36.61 |
| 0.62 | 16.111 | 0.153 | -0.02 | 0.2 | 0.0 | 105.301 | 0.95 | 0.0 | 15.111 | 0.957 | 34.7 |
| 0.63 | 18.457 | 0.194 | 0.01 | 0.2 | 0.0 | 95.139 | 1.051 | 0.0 | 17.457 | 1.058 | 33.06 |
| 0.64 | 19.272 | 0.214 | 0.01 | 0.2 | 0.0 | 90.056 | 1.11 | 0.0 | 18.272 | 1.118 | 32.81 |
| 0.65 | 19.884 | 0.224 | 0.01 | 0.2 | 0.0 | 88.768 | 1.127 | 0.0 | 18.884 | 1.134 | 32.38 |
| 0.66 | 21.006 | 0.245 | 0.01 | 0.2 | 0.0 | 85.739 | 1.166 | 0.0 | 20.006 | 1.173 | 31.73 |
| 0.67 | 21.72 | 0.265 | 0.01 | 0.2 | 0.0 | 81.962 | 1.22 | 0.0 | 20.72 | 1.227 | 31.59 |
| 0.68 | 21.618 | 0.326 | 0.02 | 0.2 | 0.0 | 66.313 | 1.508 | 0.0 | 20.618 | 1.517 | 33.96 |
| 0.69 | 21.516 | 0.377 | 0.02 | 0.2 | 0.0 | 57.072 | 1.752 | 0.0 | 20.516 | 1.763 | 35.8 |
| 0.70 | 21.618 | 0.418 | 0.00 | 0.2 | 0.0 | 51.718 | 1.934 | 0.0 | 20.618 | 1.946 | 36.91 |
| 0.71 | 22.026 | 0.438 | -0.02 | 0.2 | 0.0 | 50.288 | 1.989 | 0.0 | 21.026 | 2.001 | 36.92 |
| 0.72 | 22.229 | 0.489 | -0.03 | 0.3 | 0.0 | 45.458 | 2.2 | 0.0 | 21.229 | 2.214 | 38.04 |
| 0.73 | 22.637 | 0.551 | -0.04 | 0.3 | 0.0 | 41.083 | 2.434 | 0.0 | 21.637 | 2.449 | 39.05 |
| 0.74 | 22.943 | 0.632 | -0.06 | 0.3 | 0.0 | 36.302 | 2.755 | 0.0 | 21.943 | 2.772 | 40.52 |
| 0.75 | 22.841 | 0.724 | -0.07 | 0.3 | 0.0 | 31.548 | 3.17 | 0.0 | 21.841 | 3.19 | 42.65 |
| 0.76 | 22.841 | 0.887 | -0.08 | 0.3 | 0.0 | 25.751 | 3.883 | 0.0 | 21.841 | 3.909 | 45.82 |
| 0.77 | 22.637 | 0.969 | -0.09 | 0.3 | 0.0 | 23.361 | 4.281 | 0.0 | 21.637 | 4.309 | 47.61 |
| 0.78 | 22.229 | 1.04 | -0.09 | 0.3 | 0.0 | 21.374 | 4.679 | 0.0 | 21.229 | 4.711 | 49.51 |
| 0.79 | 22.127 | 1.122 | -0.10 | 0.3 | 0.0 | 19.721 | 5.071 | 0.0 | 21.127 | 5.106 | 51.02 |

Prova n. 4

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|--------|--------|-----|--------|--------|-------|
| 0.80 | 22.739 | 1.183 | -0.10 | 0.3 | 0.0 | 19.221 | 5.203 | 0.0 | 21.739 | 5.238 | 50.92 |
| 0.81 | 22.637 | 1.234 | -0.10 | 0.3 | 0.0 | 18.344 | 5.451 | 0.0 | 21.637 | 5.49 | 51.86 |
| 0.82 | 22.739 | 1.275 | -0.10 | 0.3 | 0.0 | 17.835 | 5.607 | 0.0 | 21.739 | 5.647 | 52.28 |
| 0.83 | 23.045 | 1.326 | -0.10 | 0.3 | 0.0 | 17.379 | 5.754 | 0.0 | 22.045 | 5.795 | 52.48 |
| 0.84 | 23.351 | 1.417 | -0.10 | 0.3 | 0.0 | 16.479 | 6.068 | 0.0 | 22.351 | 6.111 | 53.21 |
| 0.85 | 23.045 | 1.458 | -0.10 | 0.3 | 0.0 | 15.806 | 6.327 | 0.0 | 22.045 | 6.373 | 54.28 |
| 0.86 | 22.943 | 1.479 | -0.09 | 0.3 | 0.0 | 15.513 | 6.446 | 0.0 | 21.943 | 6.494 | 54.74 |
| 0.87 | 22.739 | 1.479 | -0.09 | 0.3 | 0.0 | 15.375 | 6.504 | 0.0 | 21.739 | 6.553 | 55.11 |
| 0.88 | 22.739 | 1.479 | -0.09 | 0.3 | 0.0 | 15.375 | 6.504 | 0.0 | 21.739 | 6.554 | 55.11 |
| 0.89 | 22.739 | 1.479 | -0.09 | 0.3 | 0.0 | 15.375 | 6.504 | 0.0 | 21.739 | 6.554 | 55.11 |
| 0.90 | 22.331 | 1.295 | -0.06 | 0.3 | 0.0 | 17.244 | 5.799 | 0.0 | 21.331 | 5.845 | 53.31 |
| 0.91 | 22.026 | 1.305 | -0.06 | 0.3 | 0.0 | 16.878 | 5.925 | 0.0 | 21.026 | 5.973 | 54.01 |
| 0.92 | 21.924 | 1.305 | -0.06 | 0.3 | 0.0 | 16.8 | 5.952 | 0.0 | 20.924 | 6.002 | 54.2 |
| 0.93 | 21.72 | 1.295 | -0.06 | 0.3 | 0.0 | 16.772 | 5.962 | 0.0 | 20.72 | 6.013 | 54.43 |
| 0.94 | 21.822 | 1.295 | -0.06 | 0.3 | 0.0 | 16.851 | 5.934 | 0.0 | 20.822 | 5.985 | 54.24 |
| 0.95 | 21.822 | 1.295 | -0.06 | 0.3 | 0.0 | 16.851 | 5.934 | 0.0 | 20.822 | 5.985 | 54.24 |
| 0.96 | 21.924 | 1.305 | -0.06 | 0.3 | 0.0 | 16.8 | 5.952 | 0.0 | 20.924 | 6.004 | 54.2 |
| 0.97 | 22.026 | 1.336 | -0.06 | 0.3 | 0.0 | 16.487 | 6.066 | 0.0 | 21.026 | 6.118 | 54.46 |
| 0.98 | 22.026 | 1.356 | -0.06 | 0.3 | 0.0 | 16.243 | 6.156 | 0.0 | 21.026 | 6.21 | 54.75 |
| 0.99 | 21.516 | 1.366 | -0.05 | 0.3 | 0.0 | 15.751 | 6.349 | 0.0 | 20.516 | 6.406 | 55.85 |
| 1.00 | 21.414 | 1.377 | -0.05 | 0.3 | 0.0 | 15.551 | 6.43 | 0.0 | 20.414 | 6.49 | 56.21 |
| 1.01 | 21.72 | 1.377 | -0.05 | 0.3 | 0.0 | 15.773 | 6.34 | 0.0 | 20.72 | 6.398 | 55.62 |
| 1.02 | 21.516 | 1.387 | -0.05 | 0.3 | 0.0 | 15.513 | 6.446 | 0.0 | 20.516 | 6.507 | 56.16 |
| 1.03 | 21.72 | 1.387 | -0.05 | 0.3 | 0.0 | 15.66 | 6.386 | 0.0 | 20.72 | 6.446 | 55.77 |
| 1.04 | 21.72 | 1.397 | -0.05 | 0.3 | 0.0 | 15.548 | 6.432 | 0.0 | 20.72 | 6.493 | 55.91 |
| 1.05 | 21.21 | 1.428 | -0.05 | 0.3 | 0.0 | 14.853 | 6.733 | 0.0 | 20.21 | 6.799 | 57.33 |
| 1.06 | 20.7 | 1.438 | -0.05 | 0.3 | 0.0 | 14.395 | 6.947 | 0.0 | 19.7 | 7.017 | 58.51 |
| 1.07 | 19.884 | 1.509 | -0.05 | 0.3 | 0.0 | 13.177 | 7.589 | 0.0 | 18.884 | 7.67 | 61.24 |
| 1.08 | 19.884 | 1.54 | -0.05 | 0.3 | 0.0 | 12.912 | 7.745 | 0.0 | 18.884 | 7.828 | 61.67 |
| 1.09 | 19.476 | 1.55 | -0.05 | 0.3 | 0.0 | 12.565 | 7.959 | 0.0 | 18.476 | 8.047 | 62.73 |
| 1.10 | 19.068 | 1.581 | -0.05 | 0.3 | 0.0 | 12.061 | 8.291 | 0.0 | 18.068 | 8.386 | 64.11 |
| 1.11 | 18.253 | 1.591 | -0.05 | 0.3 | 0.0 | 11.473 | 8.716 | 0.0 | 17.253 | 8.821 | 66.26 |
| 1.12 | 17.947 | 1.611 | -0.05 | 0.3 | 0.0 | 11.14 | 8.976 | 0.0 | 16.947 | 9.087 | 67.33 |
| 1.13 | 17.437 | 1.621 | -0.05 | 0.3 | 0.0 | 10.757 | 9.296 | 0.0 | 16.437 | 9.416 | 68.83 |
| 1.14 | 16.417 | 1.652 | -0.05 | 0.3 | 0.0 | 9.938 | 10.063 | 0.0 | 15.417 | 10.201 | 72.2 |
| 1.15 | 16.009 | 1.662 | -0.05 | 0.3 | 0.0 | 9.632 | 10.382 | 0.0 | 15.009 | 10.53 | 73.6 |
| 1.16 | 15.499 | 1.652 | -0.05 | 0.3 | 0.0 | 9.382 | 10.659 | 0.0 | 14.499 | 10.817 | 75.09 |
| 1.17 | 15.397 | 1.652 | -0.05 | 0.3 | 0.0 | 9.32 | 10.729 | 0.0 | 14.397 | 10.891 | 75.43 |
| 1.18 | 15.092 | 1.642 | -0.06 | 0.3 | 0.0 | 9.191 | 10.88 | 0.0 | 14.092 | 11.049 | 76.31 |
| 1.19 | 14.786 | 1.621 | -0.05 | 0.3 | 0.0 | 9.122 | 10.963 | 0.0 | 13.786 | 11.138 | 77.05 |
| 1.20 | 14.684 | 1.591 | -0.05 | 0.3 | 0.0 | 9.229 | 10.835 | 0.0 | 13.684 | 11.011 | 76.96 |
| 1.21 | 14.684 | 1.519 | -0.05 | 0.3 | 0.0 | 9.667 | 10.345 | 0.0 | 13.684 | 10.514 | 75.84 |
| 1.22 | 14.582 | 1.489 | -0.05 | 0.3 | 0.0 | 9.793 | 10.211 | 0.0 | 13.582 | 10.381 | 75.72 |
| 1.23 | 14.582 | 1.468 | -0.05 | 0.2 | 0.0 | 9.933 | 10.067 | 0.0 | 13.582 | 10.236 | 75.39 |
| 1.24 | 14.582 | 1.438 | -0.05 | 0.2 | 0.0 | 10.14 | 9.861 | 0.0 | 13.582 | 10.028 | 74.9 |
| 1.25 | 14.582 | 1.407 | -0.05 | 0.3 | 0.0 | 10.364 | 9.649 | 0.0 | 13.582 | 9.813 | 74.39 |
| 1.26 | 14.786 | 1.356 | -0.05 | 0.2 | 0.0 | 10.904 | 9.171 | 0.0 | 13.786 | 9.326 | 72.83 |
| 1.27 | 14.684 | 1.336 | -0.05 | 0.2 | 0.0 | 10.991 | 9.098 | 0.0 | 13.684 | 9.255 | 72.84 |
| 1.28 | 14.786 | 1.326 | -0.05 | 0.2 | 0.0 | 11.151 | 8.968 | 0.0 | 13.786 | 9.122 | 72.32 |
| 1.29 | 14.786 | 1.315 | -0.05 | 0.2 | 0.0 | 11.244 | 8.894 | 0.0 | 13.786 | 9.048 | 72.13 |
| 1.30 | 15.092 | 1.305 | -0.05 | 0.2 | 0.0 | 11.565 | 8.647 | 0.0 | 14.092 | 8.795 | 70.95 |
| 1.31 | 15.295 | 1.295 | -0.05 | 0.2 | 0.0 | 11.811 | 8.467 | 0.0 | 14.295 | 8.611 | 70.13 |
| 1.32 | 15.499 | 1.285 | -0.05 | 0.2 | 0.0 | 12.061 | 8.291 | 0.0 | 14.499 | 8.431 | 69.32 |
| 1.33 | 15.907 | 1.275 | -0.05 | 0.2 | 0.0 | 12.476 | 8.015 | 0.0 | 14.907 | 8.148 | 67.9 |
| 1.34 | 16.213 | 1.264 | -0.05 | 0.2 | 0.0 | 12.827 | 7.796 | 0.0 | 15.213 | 7.924 | 66.81 |
| 1.35 | 16.519 | 1.275 | -0.05 | 0.2 | 0.0 | 12.956 | 7.718 | 0.0 | 15.519 | 7.844 | 66.13 |
| 1.36 | 16.927 | 1.275 | -0.05 | 0.2 | 0.0 | 13.276 | 7.532 | 0.0 | 15.927 | 7.652 | 65 |
| 1.37 | 17.335 | 1.275 | -0.04 | 0.2 | 0.0 | 13.596 | 7.355 | 0.0 | 16.335 | 7.47 | 63.91 |
| 1.38 | 17.947 | 1.295 | -0.04 | 0.2 | 0.0 | 13.859 | 7.216 | 0.0 | 16.947 | 7.326 | 62.67 |
| 1.39 | 19.272 | 1.315 | -0.04 | 0.2 | 0.0 | 14.656 | 6.823 | 0.0 | 18.272 | 6.921 | 59.84 |
| 1.40 | 19.986 | 1.315 | -0.04 | 0.2 | 0.0 | 15.198 | 6.58 | 0.0 | 18.986 | 6.671 | 58.28 |
| 1.41 | 20.598 | 1.315 | -0.04 | 0.2 | 0.0 | 15.664 | 6.384 | 0.0 | 19.598 | 6.471 | 57 |
| 1.42 | 21.516 | 1.315 | -0.04 | 0.2 | 0.0 | 16.362 | 6.112 | 0.0 | 20.516 | 6.192 | 55.19 |
| 1.43 | 22.331 | 1.315 | -0.04 | 0.2 | 0.0 | 16.982 | 5.889 | 0.0 | 21.331 | 5.963 | 53.68 |
| 1.44 | 23.249 | 1.356 | -0.04 | 0.2 | 0.0 | 17.145 | 5.833 | 0.0 | 22.249 | 5.904 | 52.65 |
| 1.45 | 25.492 | 1.417 | -0.03 | 0.2 | 0.0 | 17.99 | 5.559 | 0.0 | 24.492 | 5.621 | 49.87 |

Prova n. 4

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|--------|-------|-----|--------|--------|-------|
| 1.46 | 27.022 | 1.428 | -0.03 | 0.2 | 0.0 | 18.923 | 5.285 | 0.0 | 26.022 | 5.341 | 47.81 |
| 1.47 | 28.042 | 1.448 | -0.03 | 0.2 | 0.0 | 19.366 | 5.164 | 0.0 | 27.042 | 5.217 | 46.69 |
| 1.48 | 28.959 | 1.479 | -0.03 | 0.2 | 0.0 | 19.58 | 5.107 | 0.0 | 27.959 | 5.159 | 45.88 |
| 1.49 | 29.571 | 1.519 | -0.02 | 0.2 | 0.0 | 19.467 | 5.137 | 0.0 | 28.571 | 5.188 | 45.59 |
| 1.50 | 30.285 | 1.56 | -0.02 | 0.2 | 0.0 | 19.413 | 5.151 | 0.0 | 29.285 | 5.201 | 45.19 |
| 1.51 | 31.305 | 1.642 | -0.02 | 0.2 | 0.0 | 19.065 | 5.245 | 0.0 | 30.305 | 5.295 | 44.89 |
| 1.52 | 31.407 | 1.693 | -0.02 | 0.2 | 0.0 | 18.551 | 5.391 | 0.0 | 30.407 | 5.442 | 45.31 |
| 1.53 | 31.815 | 1.744 | -0.02 | 0.2 | 0.0 | 18.243 | 5.482 | 0.0 | 30.815 | 5.534 | 45.36 |
| 1.54 | 32.324 | 1.805 | -0.02 | 0.2 | 0.0 | 17.908 | 5.584 | 0.0 | 31.324 | 5.637 | 45.4 |
| 1.55 | 32.528 | 1.886 | -0.02 | 0.2 | 0.0 | 17.247 | 5.798 | 0.0 | 31.528 | 5.853 | 45.95 |
| 1.56 | 32.426 | 1.968 | -0.02 | 0.2 | 0.0 | 16.477 | 6.069 | 0.0 | 31.426 | 6.127 | 46.83 |
| 1.57 | 32.121 | 2.06 | -0.02 | 0.2 | 0.0 | 15.593 | 6.413 | 0.0 | 31.121 | 6.475 | 48.01 |
| 1.58 | 31.407 | 2.203 | -0.02 | 0.2 | 0.0 | 14.256 | 7.014 | 0.0 | 30.407 | 7.084 | 50.12 |
| 1.59 | 30.999 | 2.284 | -0.02 | 0.2 | 0.0 | 13.572 | 7.368 | 0.0 | 29.999 | 7.443 | 51.32 |
| 1.60 | 30.387 | 2.345 | -0.01 | 0.1 | 0.0 | 12.958 | 7.717 | 0.0 | 29.387 | 7.798 | 52.62 |
| 1.61 | 30.285 | 2.396 | -0.01 | 0.1 | 0.0 | 12.64 | 7.912 | 0.0 | 29.285 | 7.995 | 53.18 |
| 1.62 | 29.061 | 2.498 | 0.00 | 0.1 | 0.0 | 11.634 | 8.596 | 0.0 | 28.061 | 8.691 | 55.7 |
| 1.63 | 28.654 | 2.519 | 0.01 | 0.1 | 0.0 | 11.375 | 8.791 | 0.0 | 27.654 | 8.89 | 56.45 |
| 1.64 | 27.736 | 2.549 | 0.01 | 0.1 | 0.0 | 10.881 | 9.19 | 0.0 | 26.736 | 9.298 | 58.06 |
| 1.65 | 26.92 | 2.57 | 0.02 | 0.1 | 0.0 | 10.475 | 9.547 | 0.0 | 25.92 | 9.663 | 59.51 |
| 1.66 | 25.9 | 2.559 | 0.03 | 0.1 | 0.0 | 10.121 | 9.88 | 0.0 | 24.9 | 10.006 | 61.09 |
| 1.67 | 25.9 | 2.508 | 0.03 | 0.1 | 0.0 | 10.327 | 9.683 | 0.0 | 24.9 | 9.808 | 60.65 |
| 1.68 | 25.187 | 2.406 | 0.04 | 0.1 | 0.0 | 10.468 | 9.553 | 0.0 | 24.187 | 9.679 | 60.96 |
| 1.69 | 25.289 | 2.335 | 0.05 | 0.1 | 0.0 | 10.83 | 9.233 | 0.0 | 24.289 | 9.356 | 60.14 |
| 1.70 | 25.492 | 2.254 | 0.06 | 0.1 | 0.0 | 11.31 | 8.842 | 0.0 | 24.492 | 8.959 | 59.04 |
| 1.71 | 25.492 | 2.182 | 0.07 | 0.1 | 0.0 | 11.683 | 8.56 | 0.0 | 24.492 | 8.674 | 58.35 |
| 1.72 | 25.492 | 2.111 | 0.08 | 0.1 | 0.0 | 12.076 | 8.281 | 0.0 | 24.492 | 8.392 | 57.66 |
| 1.73 | 25.391 | 1.978 | 0.13 | 0.1 | 0.0 | 12.837 | 7.79 | 0.0 | 24.391 | 7.896 | 56.49 |
| 1.74 | 25.391 | 1.927 | 0.19 | 0.1 | 0.0 | 13.176 | 7.589 | 0.0 | 24.391 | 7.693 | 55.96 |
| 1.75 | 25.696 | 1.876 | 0.29 | 0.1 | 0.0 | 13.697 | 7.301 | 0.0 | 24.696 | 7.4 | 54.94 |
| 1.76 | 25.696 | 1.835 | 0.39 | 0.1 | 0.0 | 14.003 | 7.141 | 0.0 | 24.696 | 7.239 | 54.5 |
| 1.77 | 25.9 | 1.764 | 0.49 | 0.1 | 0.0 | 14.683 | 6.811 | 0.0 | 24.9 | 6.904 | 53.41 |
| 1.78 | 26.614 | 1.693 | 0.57 | 0.1 | 0.0 | 15.72 | 6.361 | 0.0 | 25.614 | 6.446 | 51.55 |
| 1.79 | 27.532 | 1.56 | 0.63 | 0.1 | 0.0 | 17.649 | 5.666 | 0.0 | 26.532 | 5.74 | 48.73 |
| 1.80 | 27.532 | 1.499 | 0.63 | 0.1 | 0.0 | 18.367 | 5.445 | 0.0 | 26.532 | 5.516 | 48.02 |
| 1.81 | 27.736 | 1.448 | 0.63 | 0.1 | 0.0 | 19.155 | 5.221 | 0.0 | 26.736 | 5.289 | 47.13 |
| 1.82 | 27.124 | 1.438 | 0.63 | 0.1 | 0.0 | 18.862 | 5.302 | 0.0 | 26.124 | 5.373 | 47.84 |
| 1.83 | 26.716 | 1.448 | 0.63 | 0.1 | 0.0 | 18.45 | 5.42 | 0.0 | 25.716 | 5.494 | 48.53 |
| 1.84 | 25.594 | 1.489 | 0.62 | 0.1 | 0.0 | 17.189 | 5.818 | 0.0 | 24.594 | 5.901 | 50.68 |
| 1.85 | 25.391 | 1.53 | 0.62 | 0.1 | 0.0 | 16.595 | 6.026 | 0.0 | 24.391 | 6.114 | 51.49 |
| 1.86 | 25.492 | 1.54 | 0.62 | 0.1 | 0.0 | 16.553 | 6.041 | 0.0 | 24.492 | 6.129 | 51.46 |
| 1.87 | 25.696 | 1.54 | 0.62 | 0.1 | 0.0 | 16.686 | 5.993 | 0.0 | 24.696 | 6.08 | 51.15 |
| 1.88 | 25.696 | 1.54 | 0.62 | 0.1 | 0.0 | 16.686 | 5.993 | 0.0 | 24.696 | 6.081 | 51.15 |
| 1.89 | 25.696 | 1.54 | 0.62 | 0.1 | 0.0 | 16.686 | 5.993 | 0.0 | 24.696 | 6.081 | 51.15 |
| 1.90 | 27.838 | 1.366 | 0.84 | 0.1 | 0.0 | 20.379 | 4.907 | 0.0 | 26.838 | 4.974 | 46 |
| 1.91 | 28.042 | 1.377 | 0.86 | 0.1 | 0.0 | 20.365 | 4.91 | 0.0 | 27.042 | 4.977 | 45.87 |
| 1.92 | 28.654 | 1.397 | 0.89 | 0.1 | 0.0 | 20.511 | 4.875 | 0.0 | 27.654 | 4.941 | 45.34 |
| 1.93 | 29.163 | 1.407 | 0.89 | 0.1 | 0.0 | 20.727 | 4.825 | 0.0 | 28.163 | 4.888 | 44.83 |
| 1.94 | 29.571 | 1.428 | 0.89 | 0.1 | 0.0 | 20.708 | 4.829 | 0.0 | 28.571 | 4.892 | 44.59 |
| 1.95 | 29.775 | 1.448 | 0.89 | 0.1 | 0.0 | 20.563 | 4.863 | 0.0 | 28.775 | 4.927 | 44.58 |
| 1.96 | 29.469 | 1.468 | 0.90 | 0.1 | 0.0 | 20.074 | 4.982 | 0.0 | 28.469 | 5.048 | 45.18 |
| 1.97 | 29.061 | 1.509 | 0.95 | 0.1 | 0.0 | 19.258 | 5.193 | 0.0 | 28.061 | 5.263 | 46.16 |
| 1.98 | 29.367 | 1.509 | 0.95 | 0.1 | 0.0 | 19.461 | 5.138 | 0.0 | 28.367 | 5.208 | 45.78 |
| 1.99 | 29.571 | 1.499 | 0.96 | 0.1 | 0.0 | 19.727 | 5.069 | 0.0 | 28.571 | 5.137 | 45.42 |
| 2.00 | 29.367 | 1.499 | 0.97 | 0.1 | 0.0 | 19.591 | 5.104 | 0.0 | 28.367 | 5.174 | 45.67 |
| 2.01 | 28.45 | 1.519 | 0.99 | 0.1 | 0.0 | 18.729 | 5.339 | 0.0 | 27.45 | 5.415 | 47.06 |
| 2.02 | 27.736 | 1.499 | 0.99 | 0.1 | 0.0 | 18.503 | 5.405 | 0.0 | 26.736 | 5.483 | 47.77 |
| 2.03 | 27.226 | 1.479 | 0.99 | 0.1 | 0.0 | 18.408 | 5.432 | 0.0 | 26.226 | 5.514 | 48.23 |
| 2.04 | 26.818 | 1.468 | 0.99 | 0.1 | 0.0 | 18.268 | 5.474 | 0.0 | 25.818 | 5.557 | 48.66 |
| 2.05 | 26.308 | 1.468 | 1.00 | 0.1 | 0.0 | 17.921 | 5.58 | 0.0 | 25.308 | 5.667 | 49.39 |
| 2.06 | 26.716 | 1.468 | 1.01 | 0.1 | 0.0 | 18.199 | 5.495 | 0.0 | 25.716 | 5.58 | 48.81 |
| 2.07 | 27.226 | 1.458 | 1.03 | 0.1 | 0.0 | 18.674 | 5.355 | 0.0 | 26.226 | 5.437 | 47.98 |
| 2.08 | 28.144 | 1.458 | 1.04 | 0.1 | 0.0 | 19.303 | 5.181 | 0.0 | 27.144 | 5.257 | 46.75 |
| 2.09 | 28.756 | 1.438 | 1.06 | 0.1 | 0.0 | 19.997 | 5.001 | 0.0 | 27.756 | 5.074 | 45.73 |
| 2.10 | 29.979 | 1.377 | 1.11 | 0.1 | 0.0 | 21.771 | 4.593 | 0.0 | 28.979 | 4.658 | 43.51 |
| 2.11 | 31.305 | 1.305 | 1.13 | 0.1 | 0.0 | 23.989 | 4.169 | 0.0 | 30.305 | 4.225 | 41.16 |

Prova n. 4

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 2.12 | 32.426 | 1.275 | 1.15 | 0.1 | 0.0 | 25.432 | 3.932 | 0.0 | 31.426 | 3.984 | 39.62 |
| 2.13 | 33.038 | 1.254 | 1.15 | 0.1 | 0.0 | 26.346 | 3.796 | 0.0 | 32.038 | 3.845 | 38.76 |
| 2.14 | 34.568 | 1.244 | 1.19 | 0.1 | 0.0 | 27.788 | 3.599 | 0.0 | 33.568 | 3.643 | 37.19 |
| 2.15 | 35.282 | 1.275 | 1.21 | 0.1 | 0.0 | 27.672 | 3.614 | 0.0 | 34.282 | 3.658 | 36.91 |
| 2.16 | 35.995 | 1.305 | 1.21 | 0.1 | 0.0 | 27.582 | 3.626 | 0.0 | 34.995 | 3.669 | 36.62 |
| 2.17 | 36.811 | 1.326 | 1.22 | 0.1 | 0.0 | 27.761 | 3.602 | 0.0 | 35.811 | 3.645 | 36.16 |
| 2.18 | 36.811 | 1.356 | 1.22 | 0.2 | 0.0 | 27.147 | 3.684 | 0.0 | 35.811 | 3.727 | 36.49 |
| 2.19 | 36.607 | 1.407 | 1.22 | 0.2 | 0.0 | 26.018 | 3.844 | 0.0 | 35.607 | 3.89 | 37.22 |
| 2.20 | 36.403 | 1.417 | 1.22 | 0.2 | 0.0 | 25.69 | 3.893 | 0.0 | 35.403 | 3.94 | 37.5 |
| 2.21 | 35.995 | 1.417 | 1.22 | 0.2 | 0.0 | 25.402 | 3.937 | 0.0 | 34.995 | 3.985 | 37.86 |
| 2.22 | 35.791 | 1.417 | 1.22 | 0.2 | 0.0 | 25.258 | 3.959 | 0.0 | 34.791 | 4.008 | 38.04 |
| 2.23 | 34.67 | 1.489 | 1.22 | 0.2 | 0.0 | 23.284 | 4.295 | 0.0 | 33.67 | 4.35 | 39.85 |
| 2.24 | 34.16 | 1.56 | 1.22 | 0.2 | 0.0 | 21.897 | 4.567 | 0.0 | 33.16 | 4.627 | 41.09 |
| 2.25 | 33.752 | 1.601 | 1.22 | 0.2 | 0.0 | 21.082 | 4.743 | 0.0 | 32.752 | 4.807 | 41.92 |
| 2.26 | 33.038 | 1.621 | 1.22 | 0.2 | 0.0 | 20.381 | 4.906 | 0.0 | 32.038 | 4.974 | 42.86 |
| 2.27 | 32.426 | 1.632 | 1.22 | 0.2 | 0.0 | 19.869 | 5.033 | 0.0 | 31.426 | 5.104 | 43.63 |
| 2.28 | 31.917 | 1.621 | 1.22 | 0.2 | 0.0 | 19.69 | 5.079 | 0.0 | 30.917 | 5.152 | 44.07 |
| 2.29 | 31.305 | 1.581 | 1.22 | 0.2 | 0.0 | 19.801 | 5.05 | 0.0 | 30.305 | 5.125 | 44.33 |
| 2.30 | 31.305 | 1.591 | 1.22 | 0.2 | 0.0 | 19.676 | 5.082 | 0.0 | 30.305 | 5.157 | 44.44 |
| 2.31 | 30.999 | 1.591 | 1.22 | 0.2 | 0.0 | 19.484 | 5.132 | 0.0 | 29.999 | 5.209 | 44.79 |
| 2.32 | 30.897 | 1.591 | 1.22 | 0.2 | 0.0 | 19.42 | 5.149 | 0.0 | 29.897 | 5.227 | 44.91 |
| 2.33 | 30.285 | 1.591 | 1.22 | 0.2 | 0.0 | 19.035 | 5.253 | 0.0 | 29.285 | 5.335 | 45.63 |
| 2.34 | 29.163 | 1.591 | 1.22 | 0.2 | 0.0 | 18.33 | 5.456 | 0.0 | 28.163 | 5.544 | 47.01 |
| 2.35 | 28.348 | 1.55 | 1.21 | 0.2 | 0.0 | 18.289 | 5.468 | 0.0 | 27.348 | 5.559 | 47.6 |
| 2.36 | 28.042 | 1.479 | 1.21 | 0.2 | 0.0 | 18.96 | 5.274 | 0.0 | 27.042 | 5.364 | 47.17 |
| 2.37 | 28.042 | 1.407 | 1.21 | 0.2 | 0.0 | 19.93 | 5.017 | 0.0 | 27.042 | 5.103 | 46.3 |
| 2.38 | 28.45 | 1.346 | 1.22 | 0.2 | 0.0 | 21.137 | 4.731 | 0.0 | 27.45 | 4.811 | 45.02 |
| 2.39 | 28.858 | 1.346 | 1.22 | 0.2 | 0.0 | 21.44 | 4.664 | 0.0 | 27.858 | 4.742 | 44.51 |
| 2.40 | 29.367 | 1.336 | 1.22 | 0.2 | 0.0 | 21.981 | 4.549 | 0.0 | 28.367 | 4.624 | 43.77 |
| 2.41 | 30.081 | 1.315 | 1.23 | 0.2 | 0.0 | 22.875 | 4.372 | 0.0 | 29.081 | 4.442 | 42.68 |
| 2.42 | 31.509 | 1.315 | 1.24 | 0.2 | 0.0 | 23.961 | 4.173 | 0.0 | 30.509 | 4.238 | 41.09 |
| 2.43 | 33.446 | 1.285 | 1.24 | 0.2 | 0.0 | 26.028 | 3.842 | 0.0 | 32.446 | 3.898 | 38.76 |
| 2.44 | 35.078 | 1.285 | 1.25 | 0.2 | 0.0 | 27.298 | 3.663 | 0.0 | 34.078 | 3.715 | 37.23 |
| 2.45 | 37.117 | 1.285 | 1.28 | 0.2 | 0.0 | 28.885 | 3.462 | 0.0 | 36.117 | 3.508 | 35.47 |
| 2.46 | 40.176 | 1.264 | 1.29 | 0.2 | 0.0 | 31.785 | 3.146 | 0.0 | 39.176 | 3.185 | 32.87 |
| 2.47 | 47.11 | 1.183 | 1.32 | 0.2 | 0.0 | 39.822 | 2.511 | 0.0 | 46.11 | 2.538 | 27.62 |
| 2.48 | 50.475 | 1.193 | 1.32 | 0.2 | 0.0 | 42.309 | 2.364 | 0.0 | 49.475 | 2.387 | 25.95 |
| 2.49 | 53.126 | 1.224 | 1.33 | 0.2 | 0.0 | 43.404 | 2.304 | 0.0 | 52.126 | 2.326 | 24.98 |
| 2.50 | 55.778 | 1.275 | 1.34 | 0.2 | 0.0 | 43.747 | 2.286 | 0.0 | 54.778 | 2.306 | 24.26 |
| 2.51 | 58.939 | 1.315 | 1.35 | 0.2 | 0.0 | 44.821 | 2.231 | 0.0 | 57.939 | 2.25 | 23.3 |
| 2.52 | 62.202 | 1.315 | 1.35 | 0.2 | 0.0 | 47.302 | 2.114 | 0.0 | 61.202 | 2.131 | 22.05 |
| 2.53 | 64.037 | 1.295 | 1.36 | 0.2 | 0.0 | 49.449 | 2.022 | 0.0 | 63.037 | 2.038 | 21.24 |
| 2.54 | 65.771 | 1.244 | 1.37 | 0.2 | 0.0 | 52.871 | 1.891 | 0.0 | 64.771 | 1.906 | 20.24 |
| 2.55 | 67.3 | 1.193 | 1.37 | 0.2 | 0.0 | 56.412 | 1.773 | 0.0 | 66.3 | 1.786 | 19.33 |
| 2.56 | 68.728 | 1.152 | 1.37 | 0.2 | 0.0 | 59.66 | 1.676 | 0.0 | 67.728 | 1.689 | 18.56 |
| 2.57 | 70.155 | 1.081 | 1.38 | 0.2 | 0.0 | 64.898 | 1.541 | 0.0 | 69.155 | 1.552 | 17.55 |
| 2.58 | 70.461 | 1.06 | 1.38 | 0.2 | 0.0 | 66.473 | 1.504 | 0.0 | 69.461 | 1.515 | 17.29 |
| 2.59 | 70.461 | 1.04 | 1.38 | 0.2 | 0.0 | 67.751 | 1.476 | 0.0 | 69.461 | 1.487 | 17.12 |
| 2.60 | 70.257 | 1.04 | 1.38 | 0.2 | 0.0 | 67.555 | 1.48 | 0.0 | 69.257 | 1.491 | 17.17 |
| 2.61 | 69.646 | 1.05 | 1.38 | 0.2 | 0.0 | 66.33 | 1.508 | 0.0 | 68.646 | 1.519 | 17.43 |
| 2.62 | 69.238 | 1.05 | 1.39 | 0.2 | 0.0 | 65.941 | 1.517 | 0.0 | 68.238 | 1.528 | 17.55 |
| 2.63 | 68.83 | 1.03 | 1.39 | 0.2 | 0.0 | 66.825 | 1.496 | 0.0 | 67.83 | 1.508 | 17.49 |
| 2.64 | 68.014 | 0.999 | 1.39 | 0.2 | 0.0 | 68.082 | 1.469 | 0.0 | 67.014 | 1.48 | 17.45 |
| 2.65 | 67.504 | 0.969 | 1.39 | 0.2 | 0.0 | 69.664 | 1.435 | 0.0 | 66.504 | 1.447 | 17.33 |
| 2.66 | 66.994 | 0.948 | 1.39 | 0.2 | 0.0 | 70.669 | 1.415 | 0.0 | 65.994 | 1.426 | 17.29 |
| 2.67 | 66.892 | 0.928 | 1.39 | 0.2 | 0.0 | 72.082 | 1.387 | 0.0 | 65.892 | 1.398 | 17.13 |
| 2.68 | 66.688 | 0.928 | 1.40 | 0.2 | 0.0 | 71.862 | 1.392 | 0.0 | 65.688 | 1.403 | 17.19 |
| 2.69 | 66.688 | 0.928 | 1.40 | 0.2 | 0.0 | 71.862 | 1.392 | 0.0 | 65.688 | 1.403 | 17.19 |
| 2.70 | 66.586 | 0.938 | 1.40 | 0.2 | 0.0 | 70.987 | 1.409 | 0.0 | 65.586 | 1.42 | 17.32 |
| 2.71 | 66.28 | 0.948 | 1.41 | 0.2 | 0.0 | 69.916 | 1.43 | 0.0 | 65.28 | 1.442 | 17.5 |
| 2.72 | 65.363 | 0.969 | 1.41 | 0.2 | 0.0 | 67.454 | 1.482 | 0.0 | 64.363 | 1.495 | 17.98 |
| 2.73 | 64.853 | 0.979 | 1.41 | 0.2 | 0.0 | 66.244 | 1.51 | 0.0 | 63.853 | 1.522 | 18.23 |
| 2.74 | 64.241 | 0.979 | 1.41 | 0.2 | 0.0 | 65.619 | 1.524 | 0.0 | 63.241 | 1.537 | 18.42 |
| 2.75 | 63.527 | 0.979 | 1.42 | 0.2 | 0.0 | 64.89 | 1.541 | 0.0 | 62.527 | 1.555 | 18.65 |
| 2.76 | 62.712 | 0.979 | 1.42 | 0.2 | 0.0 | 64.057 | 1.561 | 0.0 | 61.712 | 1.575 | 18.92 |
| 2.77 | 61.794 | 0.969 | 1.42 | 0.2 | 0.0 | 63.771 | 1.568 | 0.0 | 60.794 | 1.582 | 19.13 |

Prova n. 4

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 2.78 | 60.672 | 0.969 | 1.42 | 0.2 | 0.0 | 62.613 | 1.597 | 0.0 | 59.672 | 1.612 | 19.51 |
| 2.79 | 59.55 | 0.959 | 1.42 | 0.2 | 0.0 | 62.096 | 1.61 | 0.0 | 58.55 | 1.626 | 19.81 |
| 2.80 | 58.633 | 0.948 | 1.42 | 0.2 | 0.0 | 61.849 | 1.617 | 0.0 | 57.633 | 1.633 | 20.03 |
| 2.81 | 57.307 | 0.938 | 1.42 | 0.2 | 0.0 | 61.095 | 1.637 | 0.0 | 56.307 | 1.653 | 20.42 |
| 2.82 | 54.554 | 0.928 | 1.42 | 0.2 | 0.0 | 58.787 | 1.701 | 0.0 | 53.554 | 1.719 | 21.4 |
| 2.83 | 53.126 | 0.928 | 1.42 | 0.2 | 0.0 | 57.248 | 1.747 | 0.0 | 52.126 | 1.766 | 22 |
| 2.84 | 51.801 | 0.918 | 1.42 | 0.2 | 0.0 | 56.428 | 1.772 | 0.0 | 50.801 | 1.792 | 22.46 |
| 2.85 | 50.577 | 0.908 | 1.42 | 0.2 | 0.0 | 55.702 | 1.795 | 0.0 | 49.577 | 1.816 | 22.9 |
| 2.86 | 49.252 | 0.897 | 1.41 | 0.2 | 0.0 | 54.907 | 1.821 | 0.0 | 48.252 | 1.843 | 23.4 |
| 2.87 | 47.518 | 0.897 | 1.41 | 0.2 | 0.0 | 52.974 | 1.888 | 0.0 | 46.518 | 1.911 | 24.25 |
| 2.88 | 47.518 | 0.897 | 1.41 | 0.2 | 0.0 | 52.974 | 1.888 | 0.0 | 46.518 | 1.911 | 24.25 |
| 2.89 | 47.518 | 0.897 | 1.41 | 0.2 | 0.0 | 52.974 | 1.888 | 0.0 | 46.518 | 1.911 | 24.25 |
| 2.90 | 42.623 | 0.806 | 1.40 | 0.2 | 0.0 | 52.882 | 1.891 | 0.0 | 41.623 | 1.917 | 25.76 |
| 2.91 | 41.706 | 0.785 | 1.39 | 0.2 | 0.0 | 53.129 | 1.882 | 0.0 | 40.706 | 1.909 | 26.02 |
| 2.92 | 40.992 | 0.775 | 1.39 | 0.2 | 0.0 | 52.893 | 1.891 | 0.0 | 39.992 | 1.918 | 26.31 |
| 2.93 | 40.584 | 0.795 | 1.38 | 0.2 | 0.0 | 51.049 | 1.959 | 0.0 | 39.584 | 1.988 | 26.85 |
| 2.94 | 40.176 | 0.826 | 1.38 | 0.2 | 0.0 | 48.639 | 2.056 | 0.0 | 39.176 | 2.087 | 27.55 |
| 2.95 | 39.972 | 0.877 | 1.38 | 0.2 | 0.0 | 45.578 | 2.194 | 0.0 | 38.972 | 2.227 | 28.38 |
| 2.96 | 39.666 | 0.918 | 1.39 | 0.2 | 0.0 | 43.209 | 2.314 | 0.0 | 38.666 | 2.35 | 29.14 |
| 2.97 | 40.482 | 0.948 | 1.39 | 0.2 | 0.0 | 42.703 | 2.342 | 0.0 | 39.482 | 2.377 | 28.98 |
| 2.98 | 41.196 | 1.01 | 1.39 | 0.2 | 0.0 | 40.788 | 2.452 | 0.0 | 40.196 | 2.488 | 29.28 |
| 2.99 | 41.298 | 0.989 | 1.39 | 0.2 | 0.0 | 41.757 | 2.395 | 0.0 | 40.298 | 2.43 | 28.96 |
| 3.00 | 41.196 | 0.959 | 1.39 | 0.2 | 0.0 | 42.957 | 2.328 | 0.0 | 40.196 | 2.363 | 28.65 |
| 3.01 | 41.094 | 0.928 | 1.39 | 0.2 | 0.0 | 44.282 | 2.258 | 0.0 | 40.094 | 2.292 | 28.32 |
| 3.02 | 41.196 | 0.897 | 1.39 | 0.2 | 0.0 | 45.926 | 2.177 | 0.0 | 40.196 | 2.21 | 27.86 |
| 3.03 | 41.4 | 0.877 | 1.39 | 0.2 | 0.0 | 47.206 | 2.118 | 0.0 | 40.4 | 2.15 | 27.46 |
| 3.04 | 41.706 | 0.857 | 1.39 | 0.2 | 0.0 | 48.665 | 2.055 | 0.0 | 40.706 | 2.086 | 27.01 |
| 3.05 | 42.318 | 0.836 | 1.39 | 0.2 | 0.0 | 50.62 | 1.976 | 0.0 | 41.318 | 2.005 | 26.36 |
| 3.06 | 43.031 | 0.826 | 1.39 | 0.2 | 0.0 | 52.096 | 1.92 | 0.0 | 42.031 | 1.947 | 25.8 |
| 3.07 | 44.051 | 0.816 | 1.39 | 0.2 | 0.0 | 53.984 | 1.852 | 0.0 | 43.051 | 1.879 | 25.09 |
| 3.08 | 45.275 | 0.785 | 1.29 | 0.2 | 0.0 | 57.675 | 1.734 | 0.0 | 44.275 | 1.758 | 24.01 |
| 3.09 | 47.926 | 0.693 | 1.05 | 0.1 | 0.0 | 69.157 | 1.446 | 0.0 | 46.926 | 1.465 | 21.45 |
| 3.10 | 49.659 | 0.642 | 0.96 | 0.1 | 0.0 | 77.35 | 1.293 | 0.0 | 48.659 | 1.309 | 19.96 |
| 3.11 | 51.393 | 0.602 | 0.90 | 0.1 | 0.0 | 85.37 | 1.171 | 0.0 | 50.393 | 1.186 | 18.68 |
| 3.12 | 52.922 | 0.571 | 0.86 | 0.1 | 0.0 | 92.683 | 1.079 | 0.0 | 51.922 | 1.092 | 17.65 |
| 3.13 | 54.248 | 0.571 | 0.82 | 0.1 | 0.0 | 95.005 | 1.053 | 0.0 | 53.248 | 1.065 | 17.17 |
| 3.14 | 54.962 | 0.581 | 0.79 | 0.1 | 0.0 | 94.599 | 1.057 | 0.0 | 53.962 | 1.069 | 17.05 |
| 3.15 | 55.472 | 0.591 | 0.76 | 0.1 | 0.0 | 93.861 | 1.065 | 0.0 | 54.472 | 1.078 | 17.01 |
| 3.16 | 55.472 | 0.612 | 0.71 | 0.1 | 0.0 | 90.641 | 1.103 | 0.0 | 54.472 | 1.116 | 17.29 |
| 3.17 | 55.064 | 0.622 | 0.68 | 0.1 | 0.0 | 88.527 | 1.13 | 0.0 | 54.064 | 1.143 | 17.57 |
| 3.18 | 55.064 | 0.622 | 0.66 | 0.1 | 0.0 | 88.527 | 1.13 | 0.0 | 54.064 | 1.143 | 17.57 |
| 3.19 | 54.656 | 0.612 | 0.65 | 0.2 | 0.0 | 89.307 | 1.12 | 0.0 | 53.656 | 1.133 | 17.58 |
| 3.20 | 53.84 | 0.571 | 0.63 | 0.1 | 0.0 | 94.291 | 1.061 | 0.0 | 52.84 | 1.073 | 17.32 |
| 3.21 | 53.534 | 0.551 | 0.62 | 0.1 | 0.0 | 97.158 | 1.029 | 0.0 | 52.534 | 1.042 | 17.14 |
| 3.22 | 53.228 | 0.54 | 0.61 | 0.1 | 0.0 | 98.57 | 1.015 | 0.0 | 52.228 | 1.027 | 17.1 |
| 3.23 | 53.024 | 0.551 | 0.61 | 0.1 | 0.0 | 96.232 | 1.039 | 0.0 | 52.024 | 1.052 | 17.33 |
| 3.24 | 52.922 | 0.551 | 0.60 | 0.1 | 0.0 | 96.047 | 1.041 | 0.0 | 51.922 | 1.054 | 17.37 |
| 3.25 | 52.922 | 0.561 | 0.59 | 0.1 | 0.0 | 94.335 | 1.06 | 0.0 | 51.922 | 1.073 | 17.51 |
| 3.26 | 53.024 | 0.571 | 0.59 | 0.1 | 0.0 | 92.862 | 1.077 | 0.0 | 52.024 | 1.09 | 17.62 |
| 3.27 | 52.922 | 0.571 | 0.58 | 0.1 | 0.0 | 92.683 | 1.079 | 0.0 | 51.922 | 1.093 | 17.66 |
| 3.28 | 52.82 | 0.571 | 0.57 | 0.1 | 0.0 | 92.504 | 1.081 | 0.0 | 51.82 | 1.095 | 17.7 |
| 3.29 | 52.515 | 0.571 | 0.57 | 0.1 | 0.0 | 91.97 | 1.087 | 0.0 | 51.515 | 1.101 | 17.81 |
| 3.30 | 52.209 | 0.571 | 0.56 | 0.1 | 0.0 | 91.434 | 1.094 | 0.0 | 51.209 | 1.108 | 17.93 |
| 3.31 | 51.699 | 0.571 | 0.56 | 0.1 | 0.0 | 90.541 | 1.104 | 0.0 | 50.699 | 1.119 | 18.13 |
| 3.32 | 51.291 | 0.571 | 0.55 | 0.1 | 0.0 | 89.827 | 1.113 | 0.0 | 50.291 | 1.128 | 18.29 |
| 3.33 | 49.965 | 0.571 | 0.54 | 0.1 | 0.0 | 87.504 | 1.143 | 0.0 | 48.965 | 1.158 | 18.82 |
| 3.34 | 49.557 | 0.571 | 0.54 | 0.1 | 0.0 | 86.79 | 1.152 | 0.0 | 48.557 | 1.168 | 18.99 |
| 3.35 | 49.252 | 0.561 | 0.53 | 0.1 | 0.0 | 87.793 | 1.139 | 0.0 | 48.252 | 1.155 | 18.97 |
| 3.36 | 48.946 | 0.561 | 0.53 | 0.1 | 0.0 | 87.248 | 1.146 | 0.0 | 47.946 | 1.162 | 19.1 |
| 3.37 | 48.946 | 0.561 | 0.52 | 0.1 | 0.0 | 87.248 | 1.146 | 0.0 | 47.946 | 1.162 | 19.1 |
| 3.38 | 49.252 | 0.571 | 0.52 | 0.1 | 0.0 | 86.256 | 1.159 | 0.0 | 48.252 | 1.176 | 19.12 |
| 3.39 | 49.761 | 0.571 | 0.52 | 0.1 | 0.0 | 87.147 | 1.147 | 0.0 | 48.761 | 1.164 | 18.91 |
| 3.40 | 50.679 | 0.581 | 0.51 | 0.1 | 0.0 | 87.227 | 1.146 | 0.0 | 49.679 | 1.162 | 18.68 |
| 3.41 | 52.515 | 0.602 | 0.51 | 0.1 | 0.0 | 87.234 | 1.146 | 0.0 | 51.515 | 1.162 | 18.25 |
| 3.42 | 53.738 | 0.622 | 0.50 | 0.1 | 0.0 | 86.395 | 1.157 | 0.0 | 52.738 | 1.173 | 18.06 |
| 3.43 | 55.166 | 0.653 | 0.49 | 0.1 | 0.0 | 84.481 | 1.184 | 0.0 | 54.166 | 1.199 | 17.95 |

Prova n. 4

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|---------|-------|-----|--------|-------|-------|
| 3.44 | 56.797 | 0.663 | 0.47 | 0.1 | 0.0 | 85.667 | 1.167 | 0.0 | 55.797 | 1.182 | 17.5 |
| 3.45 | 58.633 | 0.683 | 0.46 | 0.1 | 0.0 | 85.846 | 1.165 | 0.0 | 57.633 | 1.179 | 17.12 |
| 3.46 | 60.06 | 0.693 | 0.46 | 0.1 | 0.0 | 86.667 | 1.154 | 0.0 | 59.06 | 1.168 | 16.77 |
| 3.47 | 61.182 | 0.704 | 0.46 | 0.1 | 0.0 | 86.906 | 1.151 | 0.0 | 60.182 | 1.164 | 16.55 |
| 3.48 | 61.182 | 0.663 | 0.47 | 0.1 | 0.0 | 92.281 | 1.084 | 0.0 | 60.182 | 1.096 | 16.06 |
| 3.49 | 60.06 | 0.581 | 0.47 | 0.1 | 0.0 | 103.373 | 0.967 | 0.0 | 59.06 | 0.979 | 15.39 |
| 3.50 | 58.531 | 0.51 | 0.47 | 0.1 | 0.0 | 114.767 | 0.871 | 0.0 | 57.531 | 0.882 | 14.9 |
| 3.51 | 57.001 | 0.479 | 0.47 | 0.1 | 0.0 | 119.0 | 0.84 | 0.0 | 56.001 | 0.851 | 14.93 |
| 3.52 | 55.676 | 0.459 | 0.47 | 0.1 | 0.0 | 121.298 | 0.824 | 0.0 | 54.676 | 0.835 | 15.05 |
| 3.53 | 54.554 | 0.438 | 0.47 | 0.1 | 0.0 | 124.553 | 0.803 | 0.0 | 53.554 | 0.814 | 15.09 |
| 3.54 | 53.33 | 0.438 | 0.47 | 0.1 | 0.0 | 121.758 | 0.821 | 0.0 | 52.33 | 0.833 | 15.5 |
| 3.55 | 52.617 | 0.438 | 0.47 | 0.1 | 0.0 | 120.13 | 0.832 | 0.0 | 51.617 | 0.844 | 15.75 |
| 3.56 | 52.107 | 0.449 | 0.47 | 0.1 | 0.0 | 116.051 | 0.862 | 0.0 | 51.107 | 0.874 | 16.11 |
| 3.57 | 51.801 | 0.479 | 0.48 | 0.1 | 0.0 | 108.144 | 0.925 | 0.0 | 50.801 | 0.938 | 16.7 |
| 3.58 | 51.189 | 0.5 | 0.48 | 0.1 | 0.0 | 102.378 | 0.977 | 0.0 | 50.189 | 0.991 | 17.26 |
| 3.59 | 50.067 | 0.51 | 0.48 | 0.1 | 0.0 | 98.171 | 1.019 | 0.0 | 49.067 | 1.034 | 17.86 |
| 3.60 | 48.538 | 0.52 | 0.48 | 0.1 | 0.0 | 93.342 | 1.071 | 0.0 | 47.538 | 1.088 | 18.64 |
| 3.61 | 46.498 | 0.51 | 0.47 | 0.1 | 0.0 | 91.173 | 1.097 | 0.0 | 45.498 | 1.114 | 19.37 |
| 3.62 | 44.153 | 0.51 | 0.47 | 0.1 | 0.0 | 86.575 | 1.155 | 0.0 | 43.153 | 1.175 | 20.47 |
| 3.63 | 41.4 | 0.5 | 0.47 | 0.1 | 0.0 | 82.8 | 1.208 | 0.0 | 40.4 | 1.23 | 21.71 |
| 3.64 | 38.137 | 0.489 | 0.46 | 0.1 | 0.0 | 77.99 | 1.282 | 0.0 | 37.137 | 1.308 | 23.39 |
| 3.65 | 35.078 | 0.489 | 0.46 | 0.1 | 0.0 | 71.734 | 1.394 | 0.0 | 34.078 | 1.424 | 25.4 |
| 3.66 | 32.732 | 0.51 | 0.46 | 0.1 | 0.0 | 64.18 | 1.558 | 0.0 | 31.732 | 1.594 | 27.6 |
| 3.67 | 31.509 | 0.52 | 0.46 | 0.1 | 0.0 | 60.594 | 1.65 | 0.0 | 30.509 | 1.69 | 28.82 |
| 3.68 | 30.489 | 0.561 | 0.46 | 0.1 | 0.0 | 54.348 | 1.84 | 0.0 | 29.489 | 1.886 | 30.58 |
| 3.69 | 29.979 | 0.632 | 0.46 | 0.1 | 0.0 | 47.435 | 2.108 | 0.0 | 28.979 | 2.162 | 32.48 |
| 3.70 | 30.285 | 0.714 | 0.47 | 0.1 | 0.0 | 42.416 | 2.358 | 0.0 | 29.285 | 2.418 | 33.72 |
| 3.71 | 31.713 | 0.765 | 0.47 | 0.1 | 0.0 | 41.455 | 2.412 | 0.0 | 30.713 | 2.471 | 33.24 |
| 3.72 | 34.262 | 0.765 | 0.48 | 0.1 | 0.0 | 44.787 | 2.233 | 0.0 | 33.262 | 2.283 | 31.01 |
| 3.73 | 36.811 | 0.775 | 0.48 | 0.1 | 0.0 | 47.498 | 2.105 | 0.0 | 35.811 | 2.15 | 29.18 |
| 3.74 | 39.055 | 0.785 | 0.48 | 0.1 | 0.0 | 49.752 | 2.01 | 0.0 | 38.055 | 2.05 | 27.75 |
| 3.75 | 40.584 | 0.806 | 0.49 | 0.1 | 0.0 | 50.352 | 1.986 | 0.0 | 39.584 | 2.024 | 27.06 |
| 3.76 | 41.808 | 0.816 | 0.49 | 0.1 | 0.0 | 51.235 | 1.952 | 0.0 | 40.808 | 1.988 | 26.43 |
| 3.77 | 43.337 | 0.816 | 0.49 | 0.1 | 0.0 | 53.109 | 1.883 | 0.0 | 42.337 | 1.917 | 25.53 |
| 3.78 | 45.071 | 0.826 | 0.50 | 0.1 | 0.0 | 54.565 | 1.833 | 0.0 | 44.071 | 1.865 | 24.69 |
| 3.79 | 46.192 | 0.846 | 0.50 | 0.1 | 0.0 | 54.6 | 1.831 | 0.0 | 45.192 | 1.863 | 24.35 |
| 3.80 | 47.11 | 0.867 | 0.50 | 0.2 | 0.0 | 54.337 | 1.84 | 0.0 | 46.11 | 1.871 | 24.14 |
| 3.81 | 47.722 | 0.887 | 0.51 | 0.2 | 0.0 | 53.802 | 1.859 | 0.0 | 46.722 | 1.889 | 24.07 |
| 3.82 | 48.64 | 0.887 | 0.51 | 0.2 | 0.0 | 54.837 | 1.824 | 0.0 | 47.64 | 1.853 | 23.62 |
| 3.83 | 49.659 | 0.908 | 0.51 | 0.2 | 0.0 | 54.691 | 1.828 | 0.0 | 48.659 | 1.858 | 23.38 |
| 3.84 | 50.271 | 0.908 | 0.51 | 0.2 | 0.0 | 55.365 | 1.806 | 0.0 | 49.271 | 1.835 | 23.09 |
| 3.85 | 50.067 | 0.938 | 0.51 | 0.1 | 0.0 | 53.376 | 1.873 | 0.0 | 49.067 | 1.903 | 23.53 |
| 3.86 | 48.946 | 0.999 | 0.51 | 0.2 | 0.0 | 48.995 | 2.041 | 0.0 | 47.946 | 2.074 | 24.76 |
| 3.87 | 48.028 | 1.081 | 0.51 | 0.1 | 0.0 | 44.429 | 2.251 | 0.0 | 47.028 | 2.288 | 26.13 |
| 3.88 | 48.028 | 1.081 | 0.51 | 0.1 | 0.0 | 44.429 | 2.251 | 0.0 | 47.028 | 2.288 | 26.13 |
| 3.89 | 48.028 | 1.081 | 0.51 | 0.1 | 0.0 | 44.429 | 2.251 | 0.0 | 47.028 | 2.289 | 26.13 |
| 3.90 | 50.679 | 1.111 | 0.53 | 0.2 | 0.0 | 45.616 | 2.192 | 0.0 | 49.679 | 2.227 | 25.1 |
| 3.91 | 50.373 | 1.224 | 0.53 | 0.2 | 0.0 | 41.154 | 2.43 | 0.0 | 49.373 | 2.469 | 26.38 |
| 3.92 | 49.252 | 1.305 | 0.53 | 0.1 | 0.0 | 37.741 | 2.65 | 0.0 | 48.252 | 2.693 | 27.74 |
| 3.93 | 50.577 | 1.275 | 0.53 | 0.2 | 0.0 | 39.668 | 2.521 | 0.0 | 49.577 | 2.562 | 26.77 |
| 3.94 | 52.005 | 1.203 | 0.53 | 0.1 | 0.0 | 43.229 | 2.313 | 0.0 | 51.005 | 2.35 | 25.38 |
| 3.95 | 50.985 | 1.244 | 0.52 | 0.2 | 0.0 | 40.985 | 2.44 | 0.0 | 49.985 | 2.479 | 26.27 |
| 3.96 | 49.965 | 1.315 | 0.52 | 0.1 | 0.0 | 37.996 | 2.632 | 0.0 | 48.965 | 2.675 | 27.46 |
| 3.97 | 50.271 | 1.377 | 0.53 | 0.1 | 0.0 | 36.508 | 2.739 | 0.0 | 49.271 | 2.784 | 27.87 |
| 3.98 | 49.048 | 1.366 | 0.52 | 0.2 | 0.0 | 35.906 | 2.785 | 0.0 | 48.048 | 2.832 | 28.42 |
| 3.99 | 47.518 | 1.285 | 0.52 | 0.2 | 0.0 | 36.979 | 2.704 | 0.0 | 46.518 | 2.751 | 28.5 |
| 4.00 | 44.867 | 1.213 | 0.52 | 0.1 | 0.0 | 36.988 | 2.704 | 0.0 | 43.867 | 2.754 | 29.32 |
| 4.01 | 42.012 | 1.173 | 0.51 | 0.2 | 0.0 | 35.816 | 2.792 | 0.0 | 41.012 | 2.848 | 30.71 |
| 4.02 | 39.666 | 1.081 | 0.51 | 0.1 | 0.0 | 36.694 | 2.725 | 0.0 | 38.666 | 2.783 | 31.27 |
| 4.03 | 38.137 | 0.959 | 0.51 | 0.1 | 0.0 | 37.767 | 2.515 | 0.0 | 37.137 | 2.57 | 30.84 |
| 4.04 | 37.525 | 0.816 | 0.51 | 0.2 | 0.0 | 45.987 | 2.175 | 0.0 | 36.525 | 2.223 | 29.3 |
| 4.05 | 37.729 | 0.714 | 0.51 | 0.1 | 0.0 | 52.842 | 1.892 | 0.0 | 36.729 | 1.935 | 27.6 |
| 4.06 | 38.443 | 0.653 | 0.51 | 0.1 | 0.0 | 58.871 | 1.699 | 0.0 | 37.443 | 1.736 | 26.14 |
| 4.07 | 39.36 | 0.612 | 0.51 | 0.2 | 0.0 | 64.314 | 1.555 | 0.0 | 38.36 | 1.588 | 24.87 |
| 4.08 | 40.176 | 0.591 | 0.51 | 0.1 | 0.0 | 67.98 | 1.471 | 0.0 | 39.176 | 1.502 | 24.02 |
| 4.09 | 38.035 | 0.54 | 0.51 | 0.1 | 0.0 | 70.435 | 1.42 | 0.0 | 37.035 | 1.452 | 24.44 |

Prova n. 4

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|-------|
| 4.10 | 33.548 | 0.459 | 0.50 | 0.1 | 0.0 | 73.089 | 1.368 | 0.0 | 32.548 | 1.403 | 25.91 |
| 4.11 | 29.061 | 0.337 | 0.49 | 0.1 | 0.0 | 86.234 | 1.16 | 0.0 | 28.061 | 1.194 | 26.5 |
| 4.12 | 24.677 | 0.255 | 0.48 | 0.1 | 0.0 | 96.773 | 1.033 | 0.0 | 23.677 | 1.07 | 28.06 |
| 4.13 | 20.904 | 0.224 | 0.47 | 0.1 | 0.0 | 93.321 | 1.072 | 0.0 | 19.904 | 1.117 | 31.32 |
| 4.14 | 16.927 | 0.235 | 0.46 | 0.1 | 0.0 | 72.03 | 1.388 | 0.0 | 15.927 | 1.461 | 38.22 |
| 4.15 | 15.194 | 0.245 | 0.45 | 0.1 | 0.0 | 62.016 | 1.612 | 0.0 | 14.194 | 1.708 | 42.36 |
| 4.16 | 14.072 | 0.255 | 0.45 | 0.1 | 0.0 | 55.184 | 1.812 | 0.0 | 13.072 | 1.928 | 45.64 |
| 4.17 | 12.95 | 0.286 | 0.45 | 0.2 | 0.0 | 45.28 | 2.208 | 0.0 | 11.95 | 2.364 | 50.44 |
| 4.18 | 12.032 | 0.316 | -0.07 | 0.2 | 0.0 | 38.076 | 2.626 | 0.0 | 11.032 | 2.827 | 54.99 |
| 4.19 | 26.104 | 0.52 | -0.13 | 0.2 | 0.0 | 50.2 | 1.992 | 0.0 | 25.104 | 2.059 | 34.22 |
| 4.20 | 37.933 | 0.663 | -0.12 | 0.4 | 0.0 | 57.214 | 1.748 | 0.0 | 36.933 | 1.788 | 26.65 |
| 4.21 | 43.235 | 0.377 | 0.59 | 0.4 | 0.0 | 114.682 | 0.872 | 0.0 | 42.235 | 0.89 | 18.45 |
| 4.22 | 69.442 | 0.438 | 0.59 | 0.4 | 0.0 | 158.543 | 0.631 | 0.0 | 68.442 | 0.639 | 11.12 |
| 4.23 | 67.708 | 0.51 | 0.54 | 0.5 | 0.0 | 132.761 | 0.753 | 0.0 | 66.708 | 0.763 | 12.44 |
| 4.24 | 53.942 | 0.286 | 0.59 | 0.4 | 0.0 | 188.608 | 0.53 | 0.0 | 52.942 | 0.539 | 12.64 |
| 4.25 | 47.212 | 0.326 | 0.60 | 0.4 | 0.0 | 144.822 | 0.691 | 0.0 | 46.212 | 0.703 | 15.72 |
| 4.26 | 49.15 | 0.316 | 0.61 | 0.4 | 0.0 | 155.538 | 0.643 | 0.0 | 48.15 | 0.655 | 14.8 |
| 4.27 | 42.725 | 0.255 | 0.59 | 0.5 | 0.0 | 167.549 | 0.597 | 0.0 | 41.725 | 0.609 | 15.96 |
| 4.28 | 39.36 | 0.265 | 0.59 | 0.5 | 0.0 | 148.528 | 0.673 | 0.0 | 38.36 | 0.689 | 17.76 |
| 4.29 | 40.278 | 0.5 | 0.58 | 0.4 | 0.0 | 80.556 | 1.241 | 0.0 | 39.278 | 1.269 | 22.36 |
| 4.30 | 31.509 | 0.755 | 0.53 | 0.4 | 0.0 | 41.734 | 2.396 | 0.0 | 30.509 | 2.465 | 33.32 |
| 4.31 | 28.552 | 0.693 | 0.49 | 0.4 | 0.0 | 41.201 | 2.427 | 0.0 | 27.552 | 2.504 | 35.17 |
| 4.32 | 23.351 | 0.765 | 0.48 | 0.4 | 0.0 | 30.524 | 3.276 | 0.0 | 22.351 | 3.405 | 43.21 |
| 4.33 | 20.394 | 0.632 | 0.58 | 0.4 | 0.0 | 32.269 | 3.099 | 0.0 | 19.394 | 3.239 | 45.14 |
| 4.34 | 18.049 | 0.591 | 0.63 | 0.4 | 0.0 | 30.54 | 3.274 | 0.0 | 17.049 | 3.443 | 48.67 |
| 4.35 | 16.825 | 0.663 | 0.65 | 0.4 | 0.0 | 25.377 | 3.941 | 0.0 | 15.825 | 4.16 | 53.38 |
| 4.36 | 17.131 | 0.693 | 0.66 | 0.4 | 0.0 | 24.72 | 4.045 | 0.0 | 16.131 | 4.267 | 53.41 |
| 4.37 | 16.621 | 0.724 | 0.72 | 0.4 | 0.0 | 22.957 | 4.356 | 0.0 | 15.621 | 4.603 | 55.45 |
| 4.38 | 14.378 | 0.755 | 0.95 | 0.4 | 0.0 | 19.044 | 5.251 | 0.0 | 13.378 | 5.599 | 62.65 |
| 4.39 | 13.766 | 0.693 | 1.11 | 0.4 | 0.0 | 19.864 | 5.034 | 0.0 | 12.766 | 5.385 | 62.98 |
| 4.40 | 13.358 | 0.744 | 1.21 | 0.4 | 0.0 | 17.954 | 5.57 | 0.0 | 12.358 | 5.971 | 65.82 |
| 4.41 | 13.46 | 0.704 | 1.22 | 0.4 | 0.0 | 19.119 | 5.23 | 0.0 | 12.46 | 5.605 | 64.35 |
| 4.42 | 13.664 | 0.673 | 1.22 | 0.4 | 0.0 | 20.303 | 4.925 | 0.0 | 12.664 | 5.273 | 62.77 |
| 4.43 | 13.97 | 0.724 | 1.22 | 0.4 | 0.0 | 19.296 | 5.183 | 0.0 | 12.97 | 5.541 | 63.17 |
| 4.44 | 14.276 | 0.561 | 1.22 | 0.4 | 0.0 | 25.447 | 3.93 | 0.0 | 13.276 | 4.196 | 57.41 |
| 4.45 | 14.99 | 0.53 | 1.23 | 0.4 | 0.0 | 28.283 | 3.536 | 0.0 | 13.99 | 3.763 | 54.34 |
| 4.46 | 15.601 | 0.51 | 1.23 | 0.4 | 0.0 | 30.59 | 3.269 | 0.0 | 14.601 | 3.471 | 52.05 |
| 4.47 | 16.111 | 0.5 | 1.23 | 0.4 | 0.0 | 32.222 | 3.103 | 0.0 | 15.111 | 3.289 | 50.44 |
| 4.48 | 16.111 | 0.489 | 1.23 | 0.4 | 0.0 | 32.947 | 3.035 | 0.0 | 15.111 | 3.218 | 50.09 |
| 4.49 | 16.315 | 0.459 | 1.23 | 0.4 | 0.0 | 35.545 | 2.813 | 0.0 | 15.315 | 2.98 | 48.61 |
| 4.50 | 16.111 | 0.489 | 1.23 | 0.4 | 0.0 | 32.947 | 3.035 | 0.0 | 15.111 | 3.218 | 50.09 |
| 4.51 | 16.009 | 0.5 | 1.23 | 0.4 | 0.0 | 32.018 | 3.123 | 0.0 | 15.009 | 3.313 | 50.7 |
| 4.52 | 16.009 | 0.5 | 1.23 | 0.4 | 0.0 | 32.018 | 3.123 | 0.0 | 15.009 | 3.314 | 50.71 |
| 4.53 | 15.805 | 0.52 | 1.22 | 0.4 | 0.0 | 30.394 | 3.29 | 0.0 | 14.805 | 3.494 | 51.86 |
| 4.54 | 15.601 | 0.52 | 1.23 | 0.4 | 0.0 | 30.002 | 3.333 | 0.0 | 14.601 | 3.543 | 52.39 |
| 4.55 | 15.703 | 0.52 | 1.23 | 0.4 | 0.0 | 30.198 | 3.311 | 0.0 | 14.703 | 3.519 | 52.13 |
| 4.56 | 16.111 | 0.52 | 1.23 | 0.4 | 0.0 | 30.983 | 3.228 | 0.0 | 15.111 | 3.425 | 51.1 |
| 4.57 | 16.621 | 0.51 | 1.23 | 0.4 | 0.0 | 32.59 | 3.068 | 0.0 | 15.621 | 3.25 | 49.55 |
| 4.58 | 16.825 | 0.51 | 1.23 | 0.4 | 0.0 | 32.99 | 3.031 | 0.0 | 15.825 | 3.209 | 49.08 |
| 4.59 | 17.029 | 0.53 | 1.23 | 0.4 | 0.0 | 32.13 | 3.112 | 0.0 | 16.029 | 3.293 | 49.22 |
| 4.60 | 17.539 | 0.53 | 1.23 | 0.4 | 0.0 | 33.092 | 3.022 | 0.0 | 16.539 | 3.192 | 48.09 |
| 4.61 | 17.743 | 0.53 | 1.23 | 0.4 | 0.0 | 33.477 | 2.987 | 0.0 | 16.743 | 3.154 | 47.65 |
| 4.62 | 17.641 | 0.551 | 1.22 | 0.4 | 0.0 | 32.016 | 3.123 | 0.0 | 16.641 | 3.299 | 48.48 |
| 4.63 | 17.539 | 0.561 | 1.22 | 0.4 | 0.0 | 31.264 | 3.199 | 0.0 | 16.539 | 3.38 | 48.99 |
| 4.64 | 17.539 | 0.551 | 1.22 | 0.4 | 0.0 | 31.831 | 3.142 | 0.0 | 16.539 | 3.32 | 48.71 |
| 4.65 | 16.825 | 0.571 | 1.21 | 0.4 | 0.0 | 29.466 | 3.394 | 0.0 | 15.825 | 3.596 | 50.92 |
| 4.66 | 16.519 | 0.571 | 1.21 | 0.4 | 0.0 | 28.93 | 3.457 | 0.0 | 15.519 | 3.667 | 51.66 |
| 4.67 | 16.927 | 0.561 | 1.21 | 0.4 | 0.0 | 30.173 | 3.314 | 0.0 | 15.927 | 3.511 | 50.39 |
| 4.68 | 17.131 | 0.571 | 1.21 | 0.4 | 0.0 | 30.002 | 3.333 | 0.0 | 16.131 | 3.529 | 50.21 |
| 4.69 | 17.029 | 0.602 | 1.21 | 0.4 | 0.0 | 28.287 | 3.535 | 0.0 | 16.029 | 3.745 | 51.32 |
| 4.70 | 16.723 | 0.642 | 1.21 | 0.4 | 0.0 | 26.048 | 3.839 | 0.0 | 15.723 | 4.072 | 53.15 |
| 4.71 | 16.519 | 0.653 | 1.21 | 0.4 | 0.0 | 25.297 | 3.953 | 0.0 | 15.519 | 4.196 | 53.95 |
| 4.72 | 17.131 | 0.663 | 1.22 | 0.4 | 0.0 | 25.839 | 3.87 | 0.0 | 16.131 | 4.1 | 52.72 |
| 4.73 | 18.049 | 0.663 | 1.22 | 0.4 | 0.0 | 27.223 | 3.673 | 0.0 | 17.049 | 3.88 | 50.62 |
| 4.74 | 18.762 | 0.663 | 1.22 | 0.4 | 0.0 | 28.299 | 3.534 | 0.0 | 17.762 | 3.725 | 49.11 |
| 4.75 | 18.966 | 0.673 | 1.23 | 0.4 | 0.0 | 28.181 | 3.548 | 0.0 | 17.966 | 3.739 | 48.94 |

Prova n. 4

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 4.76 | 19.17 | 0.653 | 1.22 | 0.4 | 0.0 | 29.357 | 3.406 | 0.0 | 18.17 | 3.587 | 48.04 |
| 4.77 | 19.68 | 0.642 | 1.22 | 0.4 | 0.0 | 30.654 | 3.262 | 0.0 | 18.68 | 3.431 | 46.77 |
| 4.78 | 19.782 | 0.642 | 1.22 | 0.4 | 0.0 | 30.813 | 3.245 | 0.0 | 18.782 | 3.413 | 46.58 |
| 4.79 | 20.292 | 0.642 | 1.22 | 0.4 | 0.0 | 31.607 | 3.164 | 0.0 | 19.292 | 3.323 | 45.64 |
| 4.80 | 20.496 | 0.632 | 1.22 | 0.4 | 0.0 | 32.43 | 3.084 | 0.0 | 19.496 | 3.238 | 45.03 |
| 4.81 | 20.802 | 0.632 | 1.22 | 0.5 | 0.0 | 32.915 | 3.038 | 0.0 | 19.802 | 3.188 | 44.5 |
| 4.82 | 21.21 | 0.632 | 1.23 | 0.5 | 0.0 | 33.56 | 2.98 | 0.0 | 20.21 | 3.124 | 43.8 |
| 4.83 | 21.414 | 0.642 | 1.23 | 0.5 | 0.0 | 33.355 | 2.998 | 0.0 | 20.414 | 3.142 | 43.69 |
| 4.84 | 21.414 | 0.653 | 1.23 | 0.5 | 0.0 | 32.793 | 3.049 | 0.0 | 20.414 | 3.196 | 43.95 |
| 4.85 | 20.904 | 0.693 | 1.23 | 0.5 | 0.0 | 30.165 | 3.315 | 0.0 | 19.904 | 3.479 | 45.75 |
| 4.86 | 20.904 | 0.704 | 1.22 | 0.5 | 0.0 | 29.693 | 3.368 | 0.0 | 19.904 | 3.535 | 46 |
| 4.87 | 20.904 | 0.704 | 1.22 | 0.5 | 0.0 | 29.693 | 3.368 | 0.0 | 19.904 | 3.535 | 46 |
| 4.88 | 20.904 | 0.704 | 1.22 | 0.5 | 0.0 | 29.693 | 3.368 | 0.0 | 19.904 | 3.535 | 46 |
| 4.89 | 21.21 | 0.846 | 1.26 | 0.4 | 0.0 | 25.071 | 3.989 | 0.0 | 20.21 | 4.185 | 48.45 |
| 4.90 | 21.006 | 0.867 | 1.26 | 0.4 | 0.0 | 24.228 | 4.127 | 0.0 | 20.006 | 4.333 | 49.24 |
| 4.91 | 20.496 | 0.887 | 1.26 | 0.4 | 0.0 | 23.107 | 4.328 | 0.0 | 19.496 | 4.549 | 50.6 |
| 4.92 | 21.006 | 0.908 | 1.25 | 0.4 | 0.0 | 23.134 | 4.323 | 0.0 | 20.006 | 4.538 | 50.04 |
| 4.93 | 21.822 | 0.928 | 1.28 | 0.4 | 0.0 | 23.515 | 4.253 | 0.0 | 20.822 | 4.457 | 48.93 |
| 4.94 | 22.433 | 0.959 | 1.29 | 0.4 | 0.0 | 23.392 | 4.275 | 0.0 | 21.433 | 4.475 | 48.43 |
| 4.95 | 23.147 | 0.979 | 1.30 | 0.5 | 0.0 | 23.644 | 4.229 | 0.0 | 22.147 | 4.421 | 47.6 |
| 4.96 | 23.249 | 0.959 | 1.31 | 0.5 | 0.0 | 24.243 | 4.125 | 0.0 | 22.249 | 4.312 | 47.08 |
| 4.97 | 23.147 | 0.959 | 1.31 | 0.5 | 0.0 | 24.137 | 4.143 | 0.0 | 22.147 | 4.332 | 47.25 |
| 4.98 | 23.555 | 0.918 | 1.31 | 0.5 | 0.0 | 25.659 | 3.897 | 0.0 | 22.555 | 4.072 | 45.88 |
| 4.99 | 23.759 | 0.908 | 1.30 | 0.5 | 0.0 | 26.166 | 3.822 | 0.0 | 22.759 | 3.992 | 45.39 |
| 5.00 | 23.453 | 0.918 | 1.30 | 0.5 | 0.0 | 25.548 | 3.914 | 0.0 | 22.453 | 4.091 | 46.04 |
| 5.01 | 23.351 | 0.928 | 1.30 | 0.5 | 0.0 | 25.163 | 3.974 | 0.0 | 22.351 | 4.155 | 46.38 |
| 5.02 | 23.147 | 0.938 | 1.30 | 0.5 | 0.0 | 24.677 | 4.052 | 0.0 | 22.147 | 4.239 | 46.89 |
| 5.03 | 22.943 | 0.938 | 1.30 | 0.5 | 0.0 | 24.459 | 4.088 | 0.0 | 21.943 | 4.279 | 47.22 |
| 5.04 | 22.841 | 0.948 | 1.31 | 0.5 | 0.0 | 24.094 | 4.15 | 0.0 | 21.841 | 4.345 | 47.57 |
| 5.05 | 22.739 | 0.938 | 1.32 | 0.5 | 0.0 | 24.242 | 4.125 | 0.0 | 21.739 | 4.32 | 47.56 |
| 5.06 | 23.657 | 0.908 | 1.33 | 0.5 | 0.0 | 26.054 | 3.838 | 0.0 | 22.657 | 4.012 | 45.55 |
| 5.07 | 24.575 | 0.877 | 1.34 | 0.5 | 0.0 | 28.022 | 3.569 | 0.0 | 23.575 | 3.725 | 43.62 |
| 5.08 | 24.983 | 0.867 | 1.35 | 0.5 | 0.0 | 28.815 | 3.47 | 0.0 | 23.983 | 3.62 | 42.86 |
| 5.09 | 25.289 | 0.857 | 1.37 | 0.5 | 0.0 | 29.509 | 3.389 | 0.0 | 24.289 | 3.533 | 42.26 |
| 5.10 | 25.594 | 0.846 | 1.38 | 0.5 | 0.0 | 30.253 | 3.305 | 0.0 | 24.594 | 3.445 | 41.65 |
| 5.11 | 25.594 | 0.867 | 1.38 | 0.5 | 0.0 | 29.52 | 3.388 | 0.0 | 24.594 | 3.53 | 42.02 |
| 5.12 | 25.798 | 0.867 | 1.39 | 0.5 | 0.0 | 29.755 | 3.361 | 0.0 | 24.798 | 3.502 | 41.75 |
| 5.13 | 26.308 | 0.867 | 1.39 | 0.5 | 0.0 | 30.344 | 3.296 | 0.0 | 25.308 | 3.431 | 41.08 |
| 5.14 | 26.614 | 0.877 | 1.40 | 0.6 | 0.0 | 30.347 | 3.295 | 0.0 | 25.614 | 3.43 | 40.86 |
| 5.15 | 27.328 | 0.877 | 1.40 | 0.6 | 0.0 | 31.161 | 3.209 | 0.0 | 26.328 | 3.337 | 39.96 |
| 5.16 | 28.45 | 0.877 | 1.41 | 0.6 | 0.0 | 32.44 | 3.083 | 0.0 | 27.45 | 3.2 | 38.63 |
| 5.17 | 29.367 | 0.887 | 1.42 | 0.6 | 0.0 | 33.108 | 3.02 | 0.0 | 28.367 | 3.132 | 37.76 |
| 5.18 | 29.979 | 0.908 | 1.42 | 0.6 | 0.0 | 33.017 | 3.029 | 0.0 | 28.979 | 3.139 | 37.43 |
| 5.19 | 30.387 | 0.938 | 1.43 | 0.6 | 0.0 | 32.396 | 3.087 | 0.0 | 29.387 | 3.198 | 37.47 |
| 5.20 | 30.489 | 0.969 | 1.43 | 0.6 | 0.0 | 31.464 | 3.178 | 0.0 | 29.489 | 3.292 | 37.83 |
| 5.21 | 30.693 | 0.989 | 1.44 | 0.6 | 0.0 | 31.034 | 3.222 | 0.0 | 29.693 | 3.337 | 37.91 |
| 5.22 | 30.897 | 0.999 | 1.44 | 0.6 | 0.0 | 30.928 | 3.233 | 0.0 | 29.897 | 3.348 | 37.85 |
| 5.23 | 30.999 | 1.01 | 1.45 | 0.6 | 0.0 | 30.692 | 3.258 | 0.0 | 29.999 | 3.374 | 37.9 |
| 5.24 | 31.305 | 1.03 | 1.45 | 0.6 | 0.0 | 30.393 | 3.29 | 0.0 | 30.305 | 3.406 | 37.87 |
| 5.25 | 32.121 | 1.071 | 1.46 | 0.6 | 0.0 | 29.992 | 3.334 | 0.0 | 31.121 | 3.449 | 37.61 |
| 5.26 | 32.121 | 1.081 | 1.46 | 0.6 | 0.0 | 29.714 | 3.365 | 0.0 | 31.121 | 3.481 | 37.75 |
| 5.27 | 31.713 | 1.071 | 1.47 | 0.6 | 0.0 | 29.611 | 3.377 | 0.0 | 30.713 | 3.495 | 38.03 |
| 5.28 | 31.815 | 1.071 | 1.47 | 0.6 | 0.0 | 29.706 | 3.366 | 0.0 | 30.815 | 3.484 | 37.92 |
| 5.29 | 31.407 | 1.071 | 1.47 | 0.6 | 0.0 | 29.325 | 3.41 | 0.0 | 30.407 | 3.531 | 38.34 |
| 5.30 | 31.407 | 1.081 | 1.47 | 0.6 | 0.0 | 29.054 | 3.442 | 0.0 | 30.407 | 3.564 | 38.48 |
| 5.31 | 30.489 | 1.091 | 1.51 | 0.7 | 0.0 | 27.946 | 3.578 | 0.0 | 29.489 | 3.709 | 39.6 |
| 5.32 | 30.183 | 1.091 | 1.52 | 0.7 | 0.0 | 27.665 | 3.615 | 0.0 | 29.183 | 3.749 | 39.94 |
| 5.33 | 29.469 | 1.101 | 1.53 | 0.7 | 0.0 | 26.766 | 3.736 | 0.0 | 28.469 | 3.878 | 40.89 |
| 5.34 | 28.552 | 1.101 | 1.52 | 0.7 | 0.0 | 25.933 | 3.856 | 0.0 | 27.552 | 4.008 | 41.97 |
| 5.35 | 27.736 | 1.101 | 1.52 | 0.7 | 0.0 | 25.192 | 3.97 | 0.0 | 26.736 | 4.131 | 42.99 |
| 5.36 | 27.124 | 1.101 | 1.52 | 0.7 | 0.0 | 24.636 | 4.059 | 0.0 | 26.124 | 4.229 | 43.78 |
| 5.37 | 26.512 | 1.122 | 1.52 | 0.7 | 0.0 | 23.629 | 4.232 | 0.0 | 25.512 | 4.413 | 44.91 |
| 5.38 | 26.206 | 1.142 | 1.52 | 0.7 | 0.0 | 22.947 | 4.358 | 0.0 | 25.206 | 4.547 | 45.63 |
| 5.39 | 25.594 | 1.142 | 1.51 | 0.7 | 0.0 | 22.412 | 4.462 | 0.0 | 24.594 | 4.661 | 46.5 |
| 5.40 | 24.983 | 1.142 | 1.51 | 0.7 | 0.0 | 21.877 | 4.571 | 0.0 | 23.983 | 4.781 | 47.41 |
| 5.41 | 24.371 | 1.152 | 1.51 | 0.7 | 0.0 | 21.155 | 4.727 | 0.0 | 23.371 | 4.95 | 48.5 |

Prova n. 4

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 5.42 | 24.167 | 1.142 | 1.50 | 0.7 | 0.0 | 21.162 | 4.725 | 0.0 | 23.167 | 4.951 | 48.67 |
| 5.43 | 24.167 | 1.132 | 1.50 | 0.7 | 0.0 | 21.349 | 4.684 | 0.0 | 23.167 | 4.908 | 48.52 |
| 5.44 | 24.167 | 1.111 | 1.50 | 0.7 | 0.0 | 21.752 | 4.597 | 0.0 | 23.167 | 4.817 | 48.2 |
| 5.45 | 23.861 | 1.101 | 1.51 | 0.7 | 0.0 | 21.672 | 4.614 | 0.0 | 22.861 | 4.838 | 48.53 |
| 5.46 | 23.555 | 1.081 | 1.51 | 0.7 | 0.0 | 21.79 | 4.589 | 0.0 | 22.555 | 4.816 | 48.71 |
| 5.47 | 23.657 | 1.05 | 1.51 | 0.7 | 0.0 | 22.53 | 4.438 | 0.0 | 22.657 | 4.657 | 48.04 |
| 5.48 | 23.453 | 1.03 | 1.51 | 0.7 | 0.0 | 22.77 | 4.392 | 0.0 | 22.453 | 4.61 | 48.04 |
| 5.49 | 23.453 | 1.02 | 1.51 | 0.7 | 0.0 | 22.993 | 4.349 | 0.0 | 22.453 | 4.566 | 47.88 |
| 5.50 | 24.269 | 0.989 | 1.52 | 0.7 | 0.0 | 24.539 | 4.075 | 0.0 | 23.269 | 4.271 | 46.08 |
| 5.51 | 24.269 | 0.979 | 1.52 | 0.7 | 0.0 | 24.79 | 4.034 | 0.0 | 23.269 | 4.229 | 45.91 |
| 5.52 | 24.269 | 0.959 | 1.52 | 0.7 | 0.0 | 25.307 | 3.952 | 0.0 | 23.269 | 4.143 | 45.57 |
| 5.53 | 23.963 | 0.938 | 1.52 | 0.7 | 0.0 | 25.547 | 3.914 | 0.0 | 22.963 | 4.107 | 45.68 |
| 5.54 | 23.759 | 0.918 | 1.52 | 0.7 | 0.0 | 25.881 | 3.864 | 0.0 | 22.759 | 4.056 | 45.64 |
| 5.55 | 23.861 | 0.908 | 1.53 | 0.7 | 0.0 | 26.279 | 3.805 | 0.0 | 22.861 | 3.994 | 45.31 |
| 5.56 | 24.065 | 0.887 | 1.53 | 0.7 | 0.0 | 27.131 | 3.686 | 0.0 | 23.065 | 3.867 | 44.62 |
| 5.57 | 23.759 | 0.887 | 1.52 | 0.7 | 0.0 | 26.786 | 3.733 | 0.0 | 22.759 | 3.92 | 45.09 |
| 5.58 | 23.453 | 0.877 | 1.52 | 0.7 | 0.0 | 26.742 | 3.739 | 0.0 | 22.453 | 3.929 | 45.38 |
| 5.59 | 23.657 | 0.877 | 1.52 | 0.7 | 0.0 | 26.975 | 3.707 | 0.0 | 22.657 | 3.894 | 45.07 |
| 5.60 | 23.759 | 0.897 | 1.53 | 0.7 | 0.0 | 26.487 | 3.775 | 0.0 | 22.759 | 3.965 | 45.28 |
| 5.61 | 23.657 | 0.897 | 1.54 | 0.7 | 0.0 | 26.373 | 3.792 | 0.0 | 22.657 | 3.983 | 45.43 |
| 5.62 | 23.963 | 0.877 | 1.55 | 0.7 | 0.0 | 27.324 | 3.66 | 0.0 | 22.963 | 3.842 | 44.6 |
| 5.63 | 23.249 | 0.867 | 1.58 | 0.7 | 0.0 | 26.815 | 3.729 | 0.0 | 22.249 | 3.922 | 45.53 |
| 5.64 | 23.249 | 0.857 | 1.60 | 0.7 | 0.0 | 27.128 | 3.686 | 0.0 | 22.249 | 3.877 | 45.34 |
| 5.65 | 23.861 | 0.836 | 1.63 | 0.7 | 0.0 | 28.542 | 3.504 | 0.0 | 22.861 | 3.68 | 44 |
| 5.66 | 24.167 | 0.826 | 1.69 | 0.7 | 0.0 | 29.258 | 3.418 | 0.0 | 23.167 | 3.588 | 43.36 |
| 5.67 | 24.371 | 0.816 | 1.74 | 0.7 | 0.0 | 29.866 | 3.348 | 0.0 | 23.371 | 3.514 | 42.88 |
| 5.68 | 24.065 | 0.795 | 1.80 | 0.7 | 0.0 | 30.27 | 3.304 | 0.0 | 23.065 | 3.47 | 42.92 |
| 5.69 | 23.759 | 0.806 | 1.83 | 0.7 | 0.0 | 29.478 | 3.392 | 0.0 | 22.759 | 3.565 | 43.59 |
| 5.70 | 24.677 | 0.755 | 2.04 | 0.7 | 0.0 | 32.685 | 3.06 | 0.0 | 23.677 | 3.21 | 41.27 |
| 5.71 | 25.594 | 0.734 | 2.12 | 0.7 | 0.0 | 34.869 | 2.868 | 0.0 | 24.594 | 3.004 | 39.62 |
| 5.72 | 26.002 | 0.724 | 2.19 | 0.7 | 0.0 | 35.914 | 2.784 | 0.0 | 25.002 | 2.914 | 38.9 |
| 5.73 | 26.308 | 0.724 | 2.23 | 0.7 | 0.0 | 36.337 | 2.752 | 0.0 | 25.308 | 2.879 | 38.52 |
| 5.74 | 26.41 | 0.724 | 2.28 | 0.7 | 0.0 | 36.478 | 2.741 | 0.0 | 25.41 | 2.868 | 38.39 |
| 5.75 | 26.41 | 0.724 | 2.35 | 0.7 | 0.0 | 36.478 | 2.741 | 0.0 | 25.41 | 2.868 | 38.39 |
| 5.76 | 26.206 | 0.724 | 2.38 | 0.7 | 0.0 | 36.196 | 2.763 | 0.0 | 25.206 | 2.892 | 38.65 |
| 5.77 | 26.002 | 0.714 | 2.42 | 0.7 | 0.0 | 36.417 | 2.746 | 0.0 | 25.002 | 2.875 | 38.71 |
| 5.78 | 25.696 | 0.704 | 2.44 | 0.7 | 0.0 | 36.5 | 2.74 | 0.0 | 24.696 | 2.871 | 38.9 |
| 5.79 | 25.492 | 0.673 | 2.45 | 0.7 | 0.0 | 37.878 | 2.64 | 0.0 | 24.492 | 2.767 | 38.53 |
| 5.80 | 25.696 | 0.663 | 2.47 | 0.7 | 0.0 | 38.757 | 2.58 | 0.0 | 24.696 | 2.704 | 38.06 |
| 5.81 | 25.492 | 0.653 | 2.49 | 0.7 | 0.0 | 39.038 | 2.562 | 0.0 | 24.492 | 2.686 | 38.11 |
| 5.82 | 25.391 | 0.653 | 2.52 | 0.7 | 0.0 | 38.884 | 2.572 | 0.0 | 24.391 | 2.697 | 38.25 |
| 5.83 | 26.002 | 0.673 | 2.57 | 0.7 | 0.0 | 38.636 | 2.588 | 0.0 | 25.002 | 2.711 | 37.89 |
| 5.84 | 26.818 | 0.704 | 2.59 | 0.7 | 0.0 | 38.094 | 2.625 | 0.0 | 25.818 | 2.746 | 37.51 |
| 5.85 | 27.226 | 0.724 | 2.66 | 0.7 | 0.0 | 37.605 | 2.659 | 0.0 | 26.226 | 2.78 | 37.41 |
| 5.86 | 27.736 | 0.734 | 2.84 | 0.7 | 0.0 | 37.787 | 2.646 | 0.0 | 26.736 | 2.765 | 37.01 |
| 5.87 | 27.736 | 0.734 | 2.84 | 0.7 | 0.0 | 37.787 | 2.646 | 0.0 | 26.736 | 2.765 | 37.01 |
| 5.88 | 27.736 | 0.734 | 2.84 | 0.7 | 0.0 | 37.787 | 2.646 | 0.0 | 26.736 | 2.765 | 37.01 |
| 5.89 | 28.246 | 0.785 | 5.02 | 0.8 | 0.0 | 35.982 | 2.779 | 0.0 | 27.246 | 2.902 | 37.36 |
| 5.90 | 27.736 | 0.795 | 4.99 | 0.8 | 0.0 | 34.888 | 2.866 | 0.0 | 26.736 | 2.995 | 38.13 |
| 5.91 | 27.532 | 0.795 | 4.98 | 0.8 | 0.0 | 34.631 | 2.888 | 0.0 | 26.532 | 3.019 | 38.37 |
| 5.92 | 27.838 | 0.806 | 4.99 | 0.8 | 0.0 | 34.538 | 2.895 | 0.0 | 26.838 | 3.026 | 38.21 |
| 5.93 | 28.348 | 0.826 | 5.07 | 0.8 | 0.0 | 34.32 | 2.914 | 0.0 | 27.348 | 3.043 | 37.97 |
| 5.94 | 29.061 | 0.846 | 5.20 | 0.8 | 0.0 | 34.351 | 2.911 | 0.0 | 28.061 | 3.037 | 37.5 |
| 5.95 | 29.673 | 0.887 | 5.28 | 0.8 | 0.0 | 33.453 | 2.989 | 0.0 | 28.673 | 3.116 | 37.51 |
| 5.96 | 29.571 | 0.887 | 5.28 | 0.8 | 0.0 | 33.338 | 3.0 | 0.0 | 28.571 | 3.127 | 37.62 |
| 5.97 | 29.469 | 0.897 | 5.28 | 0.8 | 0.0 | 32.853 | 3.044 | 0.0 | 28.469 | 3.174 | 37.89 |
| 5.98 | 29.163 | 0.887 | 5.29 | 0.8 | 0.0 | 32.878 | 3.042 | 0.0 | 28.163 | 3.173 | 38.07 |
| 5.99 | 28.858 | 0.877 | 5.28 | 0.8 | 0.0 | 32.905 | 3.039 | 0.0 | 27.858 | 3.172 | 38.25 |
| 6.00 | 29.061 | 0.867 | 5.27 | 0.8 | 0.0 | 33.519 | 2.983 | 0.0 | 28.061 | 3.114 | 37.86 |
| 6.01 | 29.673 | 0.867 | 5.30 | 0.8 | 0.0 | 34.225 | 2.922 | 0.0 | 28.673 | 3.047 | 37.19 |
| 6.02 | 29.775 | 0.867 | 5.32 | 0.8 | 0.0 | 34.343 | 2.912 | 0.0 | 28.775 | 3.036 | 37.08 |
| 6.03 | 29.673 | 0.867 | 5.32 | 0.8 | 0.0 | 34.225 | 2.922 | 0.0 | 28.673 | 3.047 | 37.19 |
| 6.04 | 28.959 | 0.857 | 5.34 | 0.8 | 0.0 | 33.791 | 2.959 | 0.0 | 27.959 | 3.09 | 37.81 |
| 6.05 | 28.348 | 0.857 | 5.40 | 0.8 | 0.0 | 33.078 | 3.023 | 0.0 | 27.348 | 3.16 | 38.51 |
| 6.06 | 28.552 | 0.836 | 5.43 | 0.8 | 0.0 | 34.153 | 2.928 | 0.0 | 27.552 | 3.06 | 37.92 |
| 6.07 | 29.673 | 0.816 | 5.52 | 0.8 | 0.0 | 36.364 | 2.75 | 0.0 | 28.673 | 2.869 | 36.35 |

Prova n. 4

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 6.08 | 30.387 | 0.826 | 5.57 | 0.8 | 0.0 | 36.788 | 2.718 | 0.0 | 29.387 | 2.833 | 35.77 |
| 6.09 | 30.489 | 0.836 | 5.59 | 0.8 | 0.0 | 36.47 | 2.742 | 0.0 | 29.489 | 2.858 | 35.83 |
| 6.10 | 30.387 | 0.846 | 5.63 | 0.8 | 0.0 | 35.918 | 2.784 | 0.0 | 29.387 | 2.902 | 36.1 |
| 6.11 | 30.387 | 0.846 | 5.65 | 0.8 | 0.0 | 35.918 | 2.784 | 0.0 | 29.387 | 2.902 | 36.1 |
| 6.12 | 30.591 | 0.836 | 5.67 | 0.8 | 0.0 | 36.592 | 2.733 | 0.0 | 29.591 | 2.848 | 35.73 |
| 6.13 | 30.999 | 0.867 | 5.68 | 0.8 | 0.0 | 35.754 | 2.797 | 0.0 | 29.999 | 2.914 | 35.82 |
| 6.14 | 30.999 | 0.887 | 5.70 | 0.8 | 0.0 | 34.948 | 2.861 | 0.0 | 29.999 | 2.981 | 36.13 |
| 6.15 | 30.897 | 0.908 | 5.72 | 0.8 | 0.0 | 34.028 | 2.939 | 0.0 | 29.897 | 3.062 | 36.57 |
| 6.16 | 30.795 | 0.918 | 5.73 | 0.8 | 0.0 | 33.546 | 2.981 | 0.0 | 29.795 | 3.107 | 36.83 |
| 6.17 | 30.795 | 0.928 | 5.75 | 0.8 | 0.0 | 33.184 | 3.013 | 0.0 | 29.795 | 3.141 | 36.98 |
| 6.18 | 30.897 | 0.928 | 5.77 | 0.8 | 0.0 | 33.294 | 3.004 | 0.0 | 29.897 | 3.13 | 36.88 |
| 6.19 | 30.897 | 0.948 | 5.79 | 0.8 | 0.0 | 32.592 | 3.068 | 0.0 | 29.897 | 3.198 | 37.18 |
| 6.20 | 30.897 | 0.959 | 5.83 | 0.8 | 0.0 | 32.218 | 3.104 | 0.0 | 29.897 | 3.235 | 37.35 |
| 6.21 | 30.999 | 0.959 | 5.85 | 0.8 | 0.0 | 32.324 | 3.094 | 0.0 | 29.999 | 3.225 | 37.24 |
| 6.22 | 31.203 | 0.959 | 5.88 | 0.8 | 0.0 | 32.537 | 3.073 | 0.0 | 30.203 | 3.203 | 37.04 |
| 6.23 | 31.305 | 0.959 | 5.91 | 0.8 | 0.0 | 32.643 | 3.063 | 0.0 | 30.305 | 3.192 | 36.93 |
| 6.24 | 31.407 | 0.959 | 5.95 | 0.8 | 0.0 | 32.75 | 3.053 | 0.0 | 30.407 | 3.182 | 36.83 |
| 6.25 | 31.407 | 0.959 | 5.98 | 0.8 | 0.0 | 32.75 | 3.053 | 0.0 | 30.407 | 3.182 | 36.83 |
| 6.26 | 31.407 | 0.948 | 6.00 | 0.8 | 0.0 | 33.13 | 3.018 | 0.0 | 30.407 | 3.146 | 36.67 |
| 6.27 | 31.509 | 0.938 | 6.03 | 0.8 | 0.0 | 33.592 | 2.977 | 0.0 | 30.509 | 3.102 | 36.42 |
| 6.28 | 31.509 | 0.938 | 6.04 | 0.8 | 0.0 | 33.592 | 2.977 | 0.0 | 30.509 | 3.102 | 36.42 |
| 6.29 | 31.509 | 0.928 | 6.05 | 0.8 | 0.0 | 33.954 | 2.945 | 0.0 | 30.509 | 3.069 | 36.27 |
| 6.30 | 31.509 | 0.928 | 6.06 | 0.8 | 0.0 | 33.954 | 2.945 | 0.0 | 30.509 | 3.07 | 36.27 |
| 6.31 | 31.509 | 0.928 | 6.08 | 0.8 | 0.0 | 33.954 | 2.945 | 0.0 | 30.509 | 3.07 | 36.27 |
| 6.32 | 31.407 | 0.928 | 6.09 | 0.8 | 0.0 | 33.844 | 2.955 | 0.0 | 30.407 | 3.08 | 36.37 |
| 6.33 | 31.407 | 0.928 | 6.10 | 0.8 | 0.0 | 33.844 | 2.955 | 0.0 | 30.407 | 3.081 | 36.37 |
| 6.34 | 31.509 | 0.928 | 6.12 | 0.8 | 0.0 | 33.954 | 2.945 | 0.0 | 30.509 | 3.07 | 36.27 |
| 6.35 | 31.611 | 0.938 | 6.13 | 0.8 | 0.0 | 33.7 | 2.967 | 0.0 | 30.611 | 3.093 | 36.32 |
| 6.36 | 31.713 | 0.938 | 6.15 | 0.8 | 0.0 | 33.809 | 2.958 | 0.0 | 30.713 | 3.083 | 36.22 |
| 6.37 | 32.019 | 0.938 | 6.18 | 0.8 | 0.0 | 34.135 | 2.93 | 0.0 | 31.019 | 3.053 | 35.92 |
| 6.38 | 32.63 | 0.938 | 6.31 | 0.8 | 0.0 | 34.787 | 2.875 | 0.0 | 31.63 | 2.993 | 35.33 |
| 6.39 | 33.242 | 0.948 | 6.39 | 0.8 | 0.0 | 35.065 | 2.852 | 0.0 | 32.242 | 2.967 | 34.91 |
| 6.40 | 33.956 | 0.948 | 6.45 | 0.8 | 0.0 | 35.819 | 2.792 | 0.0 | 32.956 | 2.903 | 34.26 |
| 6.41 | 34.262 | 0.948 | 6.48 | 0.8 | 0.0 | 36.141 | 2.767 | 0.0 | 33.262 | 2.876 | 33.99 |
| 6.42 | 34.364 | 0.959 | 6.50 | 0.8 | 0.0 | 35.833 | 2.791 | 0.0 | 33.364 | 2.901 | 34.06 |
| 6.43 | 34.364 | 0.969 | 6.51 | 0.8 | 0.0 | 35.463 | 2.82 | 0.0 | 33.364 | 2.931 | 34.2 |
| 6.44 | 34.976 | 0.969 | 6.52 | 0.8 | 0.0 | 36.095 | 2.77 | 0.0 | 33.976 | 2.878 | 33.67 |
| 6.45 | 35.384 | 0.989 | 6.55 | 0.8 | 0.0 | 35.778 | 2.795 | 0.0 | 34.384 | 2.902 | 33.59 |
| 6.46 | 35.588 | 1.01 | 6.57 | 0.9 | 0.0 | 35.236 | 2.838 | 0.0 | 34.588 | 2.946 | 33.71 |
| 6.47 | 35.791 | 1.03 | 6.58 | 0.9 | 0.0 | 34.749 | 2.878 | 0.0 | 34.791 | 2.987 | 33.8 |
| 6.48 | 35.995 | 1.05 | 6.58 | 0.9 | 0.0 | 34.281 | 2.917 | 0.0 | 34.995 | 3.028 | 33.9 |
| 6.49 | 36.199 | 1.111 | 6.59 | 0.9 | 0.0 | 32.582 | 3.069 | 0.0 | 35.199 | 3.185 | 34.5 |
| 6.50 | 36.097 | 1.142 | 6.60 | 0.9 | 0.0 | 31.609 | 3.164 | 0.0 | 35.097 | 3.284 | 34.98 |
| 6.51 | 36.097 | 1.162 | 6.62 | 0.9 | 0.0 | 31.065 | 3.219 | 0.0 | 35.097 | 3.341 | 35.22 |
| 6.52 | 36.199 | 1.183 | 6.64 | 0.9 | 0.0 | 30.599 | 3.268 | 0.0 | 35.199 | 3.392 | 35.39 |
| 6.53 | 36.199 | 1.193 | 6.64 | 0.9 | 0.0 | 30.343 | 3.296 | 0.0 | 35.199 | 3.421 | 35.51 |
| 6.54 | 35.995 | 1.224 | 6.64 | 0.9 | 0.0 | 29.408 | 3.4 | 0.0 | 34.995 | 3.531 | 36.06 |
| 6.55 | 35.893 | 1.234 | 6.64 | 0.9 | 0.0 | 29.087 | 3.438 | 0.0 | 34.893 | 3.57 | 36.27 |
| 6.56 | 35.791 | 1.234 | 6.63 | 0.9 | 0.0 | 29.004 | 3.448 | 0.0 | 34.791 | 3.581 | 36.36 |
| 6.57 | 35.791 | 1.244 | 6.63 | 0.9 | 0.0 | 28.771 | 3.476 | 0.0 | 34.791 | 3.61 | 36.48 |
| 6.58 | 35.689 | 1.244 | 6.62 | 0.9 | 0.0 | 28.689 | 3.486 | 0.0 | 34.689 | 3.621 | 36.57 |
| 6.59 | 35.486 | 1.254 | 6.61 | 0.9 | 0.0 | 28.298 | 3.534 | 0.0 | 34.486 | 3.672 | 36.87 |
| 6.60 | 35.486 | 1.254 | 6.61 | 0.9 | 0.0 | 28.298 | 3.534 | 0.0 | 34.486 | 3.672 | 36.87 |
| 6.61 | 35.486 | 1.244 | 6.62 | 0.9 | 0.0 | 28.526 | 3.506 | 0.0 | 34.486 | 3.643 | 36.75 |
| 6.62 | 35.588 | 1.234 | 6.62 | 0.9 | 0.0 | 28.84 | 3.467 | 0.0 | 34.588 | 3.603 | 36.54 |
| 6.63 | 35.791 | 1.224 | 6.64 | 0.9 | 0.0 | 29.241 | 3.42 | 0.0 | 34.791 | 3.553 | 36.25 |
| 6.64 | 36.097 | 1.213 | 6.67 | 0.9 | 0.0 | 29.758 | 3.36 | 0.0 | 35.097 | 3.491 | 35.85 |
| 6.65 | 35.995 | 1.203 | 6.68 | 0.9 | 0.0 | 29.921 | 3.342 | 0.0 | 34.995 | 3.472 | 35.82 |
| 6.66 | 35.486 | 1.203 | 6.66 | 0.9 | 0.0 | 29.498 | 3.39 | 0.0 | 34.486 | 3.524 | 36.27 |
| 6.67 | 34.976 | 1.203 | 6.63 | 0.9 | 0.0 | 29.074 | 3.44 | 0.0 | 33.976 | 3.578 | 36.73 |
| 6.68 | 34.466 | 1.203 | 6.61 | 0.9 | 0.0 | 28.65 | 3.49 | 0.0 | 33.466 | 3.633 | 37.2 |
| 6.69 | 34.364 | 1.203 | 6.57 | 0.9 | 0.0 | 28.565 | 3.501 | 0.0 | 33.364 | 3.645 | 37.29 |
| 6.70 | 34.058 | 1.213 | 6.61 | 0.9 | 0.0 | 28.077 | 3.562 | 0.0 | 33.058 | 3.71 | 37.7 |
| 6.71 | 34.058 | 1.213 | 6.62 | 0.9 | 0.0 | 28.077 | 3.562 | 0.0 | 33.058 | 3.71 | 37.7 |
| 6.72 | 34.058 | 1.213 | 6.64 | 0.9 | 0.0 | 28.077 | 3.562 | 0.0 | 33.058 | 3.71 | 37.7 |
| 6.73 | 34.058 | 1.203 | 6.65 | 0.9 | 0.0 | 28.311 | 3.532 | 0.0 | 33.058 | 3.68 | 37.58 |

Prova n. 4

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 6.74 | 34.058 | 1.203 | 6.66 | 0.9 | 0.0 | 28.311 | 3.532 | 0.0 | 33.058 | 3.68 | 37.58 |
| 6.75 | 34.058 | 1.203 | 6.66 | 0.9 | 0.0 | 28.311 | 3.532 | 0.0 | 33.058 | 3.68 | 37.58 |
| 6.76 | 33.956 | 1.193 | 6.68 | 0.9 | 0.0 | 28.463 | 3.513 | 0.0 | 32.956 | 3.661 | 37.56 |
| 6.77 | 34.058 | 1.193 | 6.68 | 0.9 | 0.0 | 28.548 | 3.503 | 0.0 | 33.058 | 3.65 | 37.46 |
| 6.78 | 33.956 | 1.183 | 6.69 | 0.9 | 0.0 | 28.703 | 3.484 | 0.0 | 32.956 | 3.631 | 37.43 |
| 6.79 | 34.058 | 1.173 | 6.70 | 0.9 | 0.0 | 29.035 | 3.444 | 0.0 | 33.058 | 3.589 | 37.21 |
| 6.80 | 34.16 | 1.152 | 6.72 | 0.9 | 0.0 | 29.653 | 3.372 | 0.0 | 33.16 | 3.514 | 36.85 |
| 6.81 | 34.16 | 1.152 | 6.73 | 0.9 | 0.0 | 29.653 | 3.372 | 0.0 | 33.16 | 3.515 | 36.86 |
| 6.82 | 34.16 | 1.132 | 6.74 | 0.9 | 0.0 | 30.177 | 3.314 | 0.0 | 33.16 | 3.454 | 36.6 |
| 6.83 | 34.262 | 1.122 | 6.75 | 0.9 | 0.0 | 30.537 | 3.275 | 0.0 | 33.262 | 3.413 | 36.38 |
| 6.84 | 34.16 | 1.111 | 6.77 | 0.9 | 0.0 | 30.747 | 3.252 | 0.0 | 33.16 | 3.39 | 36.33 |
| 6.85 | 34.364 | 1.111 | 6.80 | 0.9 | 0.0 | 30.931 | 3.233 | 0.0 | 33.364 | 3.369 | 36.15 |
| 6.86 | 34.364 | 1.122 | 6.81 | 0.9 | 0.0 | 30.627 | 3.265 | 0.0 | 33.364 | 3.403 | 36.29 |
| 6.87 | 34.364 | 1.122 | 6.81 | 0.9 | 0.0 | 30.627 | 3.265 | 0.0 | 33.364 | 3.403 | 36.29 |
| 6.88 | 34.364 | 1.122 | 6.81 | 0.9 | 0.0 | 30.627 | 3.265 | 0.0 | 33.364 | 3.403 | 36.29 |
| 6.89 | 35.588 | 1.152 | 8.99 | 0.9 | 0.0 | 30.892 | 3.237 | 0.0 | 34.588 | 3.369 | 35.57 |
| 6.90 | 35.486 | 1.152 | 8.97 | 0.9 | 0.0 | 30.804 | 3.246 | 0.0 | 34.486 | 3.38 | 35.66 |
| 6.91 | 35.282 | 1.152 | 8.93 | 0.9 | 0.0 | 30.627 | 3.265 | 0.0 | 34.282 | 3.4 | 35.84 |
| 6.92 | 35.282 | 1.152 | 8.91 | 0.9 | 0.0 | 30.627 | 3.265 | 0.0 | 34.282 | 3.4 | 35.85 |
| 6.93 | 35.078 | 1.152 | 8.89 | 0.9 | 0.0 | 30.45 | 3.284 | 0.0 | 34.078 | 3.421 | 36.03 |
| 6.94 | 35.078 | 1.152 | 8.89 | 0.9 | 0.0 | 30.45 | 3.284 | 0.0 | 34.078 | 3.422 | 36.03 |
| 6.95 | 35.078 | 1.142 | 8.91 | 0.9 | 0.0 | 30.716 | 3.256 | 0.0 | 34.078 | 3.392 | 35.9 |
| 6.96 | 35.18 | 1.142 | 8.91 | 0.9 | 0.0 | 30.806 | 3.246 | 0.0 | 34.18 | 3.382 | 35.81 |
| 6.97 | 35.18 | 1.132 | 8.92 | 0.9 | 0.0 | 31.078 | 3.218 | 0.0 | 34.18 | 3.353 | 35.69 |
| 6.98 | 35.078 | 1.122 | 8.93 | 0.9 | 0.0 | 31.264 | 3.199 | 0.0 | 34.078 | 3.333 | 35.65 |
| 6.99 | 35.078 | 1.122 | 8.93 | 0.9 | 0.0 | 31.264 | 3.199 | 0.0 | 34.078 | 3.333 | 35.66 |
| 7.00 | 35.384 | 1.122 | 8.97 | 0.9 | 0.0 | 31.537 | 3.171 | 0.0 | 34.384 | 3.304 | 35.39 |
| 7.01 | 35.588 | 1.111 | 8.98 | 0.9 | 0.0 | 32.032 | 3.122 | 0.0 | 34.588 | 3.252 | 35.07 |
| 7.02 | 35.689 | 1.111 | 9.00 | 0.9 | 0.0 | 32.123 | 3.113 | 0.0 | 34.689 | 3.242 | 34.98 |
| 7.03 | 35.893 | 1.091 | 9.04 | 0.9 | 0.0 | 32.899 | 3.04 | 0.0 | 34.893 | 3.165 | 34.56 |
| 7.04 | 36.097 | 1.091 | 9.06 | 0.9 | 0.0 | 33.086 | 3.022 | 0.0 | 35.097 | 3.147 | 34.38 |
| 7.05 | 36.709 | 1.091 | 9.10 | 0.9 | 0.0 | 33.647 | 2.972 | 0.0 | 35.709 | 3.093 | 33.87 |
| 7.06 | 36.913 | 1.091 | 9.12 | 0.9 | 0.0 | 33.834 | 2.956 | 0.0 | 35.913 | 3.075 | 33.71 |
| 7.07 | 37.219 | 1.101 | 9.14 | 0.9 | 0.0 | 33.805 | 2.958 | 0.0 | 36.219 | 3.077 | 33.59 |
| 7.08 | 37.627 | 1.101 | 9.16 | 0.9 | 0.0 | 34.175 | 2.926 | 0.0 | 36.627 | 3.042 | 33.26 |
| 7.09 | 37.831 | 1.111 | 9.19 | 0.9 | 0.0 | 34.051 | 2.937 | 0.0 | 36.831 | 3.053 | 33.23 |
| 7.10 | 38.341 | 1.132 | 9.21 | 0.9 | 0.0 | 33.87 | 2.952 | 0.0 | 37.341 | 3.068 | 33.08 |
| 7.11 | 38.545 | 1.142 | 9.19 | 0.9 | 0.0 | 33.752 | 2.963 | 0.0 | 37.545 | 3.078 | 33.05 |
| 7.12 | 38.749 | 1.173 | 9.19 | 0.9 | 0.0 | 33.034 | 3.027 | 0.0 | 37.749 | 3.145 | 33.26 |
| 7.13 | 38.749 | 1.193 | 9.19 | 0.9 | 0.0 | 32.48 | 3.079 | 0.0 | 37.749 | 3.198 | 33.49 |
| 7.14 | 38.749 | 1.213 | 9.21 | 0.9 | 0.0 | 31.945 | 3.13 | 0.0 | 37.749 | 3.252 | 33.72 |
| 7.15 | 39.36 | 1.254 | 9.25 | 0.9 | 0.0 | 31.388 | 3.186 | 0.0 | 38.36 | 3.308 | 33.71 |
| 7.16 | 39.055 | 1.264 | 9.22 | 0.9 | 0.0 | 30.898 | 3.236 | 0.0 | 38.055 | 3.362 | 34.06 |
| 7.17 | 38.851 | 1.285 | 9.24 | 0.9 | 0.0 | 30.234 | 3.308 | 0.0 | 37.851 | 3.436 | 34.45 |
| 7.18 | 38.749 | 1.305 | 9.26 | 0.9 | 0.0 | 29.693 | 3.368 | 0.0 | 37.749 | 3.5 | 34.75 |
| 7.19 | 38.443 | 1.336 | 9.30 | 0.9 | 0.0 | 28.775 | 3.475 | 0.0 | 37.443 | 3.613 | 35.34 |
| 7.20 | 38.137 | 1.356 | 9.36 | 0.9 | 0.0 | 28.125 | 3.556 | 0.0 | 37.137 | 3.697 | 35.8 |
| 7.21 | 38.137 | 1.366 | 9.40 | 0.9 | 0.0 | 27.919 | 3.582 | 0.0 | 37.137 | 3.725 | 35.91 |
| 7.22 | 38.137 | 1.366 | 9.44 | 0.9 | 0.0 | 27.919 | 3.582 | 0.0 | 37.137 | 3.725 | 35.91 |
| 7.23 | 38.239 | 1.366 | 9.48 | 0.9 | 0.0 | 27.993 | 3.572 | 0.0 | 37.239 | 3.715 | 35.83 |
| 7.24 | 38.239 | 1.356 | 9.52 | 0.9 | 0.0 | 28.2 | 3.546 | 0.0 | 37.239 | 3.688 | 35.72 |
| 7.25 | 38.239 | 1.356 | 9.54 | 0.9 | 0.0 | 28.2 | 3.546 | 0.0 | 37.239 | 3.688 | 35.72 |
| 7.26 | 38.239 | 1.336 | 9.56 | 0.9 | 0.0 | 28.622 | 3.494 | 0.0 | 37.239 | 3.634 | 35.51 |
| 7.27 | 38.239 | 1.326 | 9.57 | 0.9 | 0.0 | 28.838 | 3.468 | 0.0 | 37.239 | 3.607 | 35.4 |
| 7.28 | 38.239 | 1.305 | 9.59 | 0.9 | 0.0 | 29.302 | 3.413 | 0.0 | 37.239 | 3.55 | 35.17 |
| 7.29 | 38.239 | 1.285 | 9.61 | 0.9 | 0.0 | 29.758 | 3.36 | 0.0 | 37.239 | 3.496 | 34.95 |
| 7.30 | 38.341 | 1.275 | 9.62 | 0.9 | 0.0 | 30.071 | 3.325 | 0.0 | 37.341 | 3.459 | 34.76 |
| 7.31 | 38.341 | 1.264 | 9.64 | 0.9 | 0.0 | 30.333 | 3.297 | 0.0 | 37.341 | 3.43 | 34.63 |
| 7.32 | 38.341 | 1.254 | 9.65 | 0.9 | 0.0 | 30.575 | 3.271 | 0.0 | 37.341 | 3.403 | 34.52 |
| 7.33 | 38.443 | 1.244 | 9.67 | 0.9 | 0.0 | 30.903 | 3.236 | 0.0 | 37.443 | 3.366 | 34.33 |
| 7.34 | 38.341 | 1.224 | 9.72 | 0.9 | 0.0 | 31.324 | 3.192 | 0.0 | 37.341 | 3.322 | 34.18 |
| 7.35 | 38.443 | 1.224 | 9.75 | 0.9 | 0.0 | 31.408 | 3.184 | 0.0 | 37.443 | 3.313 | 34.1 |
| 7.36 | 38.443 | 1.213 | 9.78 | 0.9 | 0.0 | 31.692 | 3.155 | 0.0 | 37.443 | 3.283 | 33.98 |
| 7.37 | 38.443 | 1.213 | 9.83 | 0.9 | 0.0 | 31.692 | 3.155 | 0.0 | 37.443 | 3.283 | 33.98 |
| 7.38 | 38.545 | 1.203 | 9.93 | 0.9 | 0.0 | 32.041 | 3.121 | 0.0 | 37.545 | 3.247 | 33.78 |
| 7.39 | 38.545 | 1.203 | 9.98 | 0.9 | 0.0 | 32.041 | 3.121 | 0.0 | 37.545 | 3.248 | 33.78 |

Prova n. 4

| | | | | | | | | | | | |
|------|--------|-------|---------|-----|-----|--------|-------|-----|--------|-------|-------|
| 7.40 | 38.647 | 1.203 | 10.03 | 0.9 | 0.0 | 32.126 | 3.113 | 0.0 | 37.647 | 3.239 | 33.7 |
| 7.41 | 38.749 | 1.193 | 10.08 | 0.9 | 0.0 | 32.48 | 3.079 | 0.0 | 37.749 | 3.203 | 33.51 |
| 7.42 | 38.851 | 1.193 | 10.13 | 0.9 | 0.0 | 32.566 | 3.071 | 0.0 | 37.851 | 3.195 | 33.43 |
| 7.43 | 39.055 | 1.183 | 1022.50 | 0.9 | 0.0 | 33.014 | 3.029 | 0.0 | 38.055 | 3.151 | 33.16 |
| 7.44 | 39.055 | 1.183 | 1027.46 | 0.9 | 0.0 | 33.014 | 3.029 | 0.0 | 38.055 | 3.151 | 33.16 |
| 7.45 | 39.055 | 1.173 | 1032.23 | 0.9 | 0.0 | 33.295 | 3.003 | 0.0 | 38.055 | 3.125 | 33.05 |
| 7.46 | 39.055 | 1.173 | 1037.00 | 0.9 | 0.0 | 33.295 | 3.003 | 0.0 | 38.055 | 3.125 | 33.05 |
| 7.47 | 39.156 | 1.162 | 1041.49 | 0.9 | 0.0 | 33.697 | 2.968 | 0.0 | 38.156 | 3.087 | 32.84 |
| 7.48 | 39.258 | 1.152 | 1051.49 | 0.9 | 0.0 | 34.078 | 2.934 | 0.0 | 38.258 | 3.053 | 32.65 |
| 7.49 | 39.36 | 1.142 | 1056.64 | 0.9 | 0.0 | 34.466 | 2.901 | 0.0 | 38.36 | 3.018 | 32.46 |
| 7.50 | 39.462 | 1.142 | 1061.50 | 0.9 | 0.0 | 34.555 | 2.894 | 0.0 | 38.462 | 3.01 | 32.38 |
| 7.51 | 39.564 | 1.142 | 1066.74 | 0.9 | 0.0 | 34.644 | 2.886 | 0.0 | 38.564 | 3.002 | 32.31 |
| 7.52 | 39.768 | 1.132 | 1071.98 | 0.9 | 0.0 | 35.131 | 2.847 | 0.0 | 38.768 | 2.96 | 32.04 |
| 7.53 | 40.074 | 1.132 | 1082.26 | 0.9 | 0.0 | 35.401 | 2.825 | 0.0 | 39.074 | 2.937 | 31.82 |
| 7.54 | 40.278 | 1.142 | 1088.15 | 0.9 | 0.0 | 35.27 | 2.835 | 0.0 | 39.278 | 2.947 | 31.79 |
| 7.55 | 40.482 | 1.142 | 1093.86 | 0.9 | 0.0 | 35.448 | 2.821 | 0.0 | 39.482 | 2.932 | 31.64 |
| 7.56 | 40.686 | 1.142 | 1098.91 | 0.9 | 0.0 | 35.627 | 2.807 | 0.0 | 39.686 | 2.917 | 31.5 |
| 7.57 | 40.788 | 1.142 | 1103.02 | 0.9 | 0.0 | 35.716 | 2.8 | 0.0 | 39.788 | 2.91 | 31.43 |
| 7.58 | 40.89 | 1.142 | 1106.29 | 0.9 | 0.0 | 35.806 | 2.793 | 0.0 | 39.89 | 2.902 | 31.36 |
| 7.59 | 40.992 | 1.152 | 1113.40 | 0.9 | 0.0 | 35.583 | 2.81 | 0.0 | 39.992 | 2.92 | 31.4 |
| 7.60 | 41.094 | 1.162 | 1116.87 | 0.9 | 0.0 | 35.365 | 2.828 | 0.0 | 40.094 | 2.938 | 31.45 |
| 7.61 | 41.196 | 1.162 | 1120.32 | 0.9 | 0.0 | 35.453 | 2.821 | 0.0 | 40.196 | 2.931 | 31.38 |
| 7.62 | 41.196 | 1.173 | 1123.31 | 0.9 | 0.0 | 35.12 | 2.847 | 0.0 | 40.196 | 2.959 | 31.5 |
| 7.63 | 41.094 | 1.173 | 1124.90 | 0.9 | 0.0 | 35.033 | 2.854 | 0.0 | 40.094 | 2.966 | 31.57 |
| 7.64 | 41.094 | 1.173 | 1125.57 | 0.9 | 0.0 | 35.033 | 2.854 | 0.0 | 40.094 | 2.967 | 31.57 |
| 7.65 | 40.89 | 1.183 | 1126.31 | 0.9 | 0.0 | 34.565 | 2.893 | 0.0 | 39.89 | 3.008 | 31.83 |
| 7.66 | 40.89 | 1.183 | 1127.25 | 0.9 | 0.0 | 34.565 | 2.893 | 0.0 | 39.89 | 3.008 | 31.83 |
| 7.67 | 40.89 | 1.183 | 112.80 | 0.9 | 0.0 | 34.565 | 2.893 | 0.0 | 39.89 | 3.008 | 31.83 |
| 7.68 | 41.094 | 1.183 | 1130.05 | 0.9 | 0.0 | 34.737 | 2.879 | 0.0 | 40.094 | 2.993 | 31.69 |
| 7.69 | 41.4 | 1.183 | 1133.79 | 1.0 | 0.0 | 34.996 | 2.857 | 0.0 | 40.4 | 2.97 | 31.48 |
| 7.70 | 41.91 | 1.183 | 1140.71 | 1.0 | 0.0 | 35.427 | 2.823 | 0.0 | 40.91 | 2.932 | 31.13 |
| 7.71 | 42.623 | 1.183 | 1150.15 | 1.0 | 0.0 | 36.03 | 2.775 | 0.0 | 41.623 | 2.882 | 30.65 |
| 7.72 | 43.643 | 1.193 | 1163.62 | 1.0 | 0.0 | 36.583 | 2.734 | 0.0 | 42.643 | 2.836 | 30.09 |
| 7.73 | 44.663 | 1.193 | 1180.08 | 1.0 | 0.0 | 37.438 | 2.671 | 0.0 | 43.663 | 2.769 | 29.45 |
| 7.74 | 47.62 | 1.213 | 1219.63 | 1.0 | 0.0 | 39.258 | 2.547 | 0.0 | 46.62 | 2.634 | 27.93 |
| 7.75 | 48.64 | 1.234 | 1232.73 | 1.0 | 0.0 | 39.417 | 2.537 | 0.0 | 47.64 | 2.622 | 27.58 |
| 7.76 | 48.844 | 1.264 | 1229.92 | 1.0 | 0.0 | 38.642 | 2.588 | 0.0 | 47.844 | 2.674 | 27.76 |
| 7.77 | 48.13 | 1.275 | 1209.63 | 1.0 | 0.0 | 37.749 | 2.649 | 0.0 | 47.13 | 2.739 | 28.27 |
| 7.78 | 46.804 | 1.295 | 1177.93 | 1.0 | 0.0 | 36.142 | 2.767 | 0.0 | 45.804 | 2.864 | 29.22 |
| 7.79 | 45.479 | 1.326 | 111.78 | 1.0 | 0.0 | 34.298 | 2.916 | 0.0 | 44.479 | 3.021 | 30.32 |
| 7.80 | 45.071 | 1.366 | 1057.30 | 1.0 | 0.0 | 32.995 | 3.031 | 0.0 | 44.071 | 3.141 | 30.97 |
| 7.81 | 42.623 | 1.55 | 1063.09 | 1.0 | 0.0 | 27.499 | 3.637 | 0.0 | 41.623 | 3.777 | 34.38 |
| 7.82 | 41.604 | 1.591 | 1082.26 | 1.0 | 0.0 | 26.15 | 3.824 | 0.0 | 40.604 | 3.976 | 35.5 |
| 7.83 | 41.298 | 1.601 | 1102.46 | 1.0 | 0.0 | 25.795 | 3.877 | 0.0 | 40.298 | 4.032 | 35.83 |
| 7.84 | 41.4 | 1.581 | 1124.07 | 1.0 | 0.0 | 26.186 | 3.819 | 0.0 | 40.4 | 3.972 | 35.56 |
| 7.85 | 41.91 | 1.56 | 1146.22 | 1.0 | 0.0 | 26.865 | 3.722 | 0.0 | 40.91 | 3.87 | 34.99 |
| 7.86 | 41.91 | 1.56 | 1146.22 | 1.0 | 0.0 | 26.865 | 3.722 | 0.0 | 40.91 | 3.87 | 34.99 |
| 7.87 | 41.91 | 1.56 | 1146.22 | 1.0 | 0.0 | 26.865 | 3.722 | 0.0 | 40.91 | 3.87 | 34.99 |

Prova n. 4**STIMA PARAMETRI GEOTECNICI Nr.4****TERRENI COESIVI**Coesione non drenata (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Lunne & Eide | Sunda Relazione Sperimentale | Lunne T.-Kleven A. 1981 | Kjekstad. 1978 - Lunne, Robertson and Powell 1977 | Lunne, Robertson and Powell 1977 | Terzaghi |
|------------------|--------------------------|--------------------------|--------------|------------------------------|-------------------------|---|----------------------------------|----------|
| 2.39 | 29.201 | 23.411 | 1.40 | 1.77 | 1.93 | 1.70 | 1.52 | 1.46 |
| 4.36 | 60.402 | 49.378 | 2.88 | 2.84 | 3.98 | 3.51 | 3.14 | 3.02 |
| 6.00 | 28.118 | 23.783 | 1.31 | 1.67 | 1.80 | 1.59 | 1.42 | 1.41 |
| 7.87 | 40.616 | 36.731 | 1.89 | 2.17 | 2.61 | 2.30 | 2.06 | 2.03 |

Modulo Edometrico (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Mitchell & Gardner (1975) | Metodo generale del modulo edometrico | Buismann | Buismann Sanglerat |
|------------------|--------------------------|--------------------------|---------------------------|---------------------------------------|----------|--------------------|
| 2.39 | 29.201 | 23.411 | 73.00 | 58.40 | 87.60 | 87.60 |
| 4.36 | 60.402 | 49.378 | 151.01 | 120.80 | 181.21 | 90.60 |
| 6.00 | 28.118 | 23.783 | 70.30 | 56.24 | 84.35 | 84.35 |
| 7.87 | 40.616 | 36.731 | 101.54 | 81.23 | 121.85 | 121.85 |

Modulo di deformazione non drenato Eu (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Cancelli 1980 | Ladd 1977 (30) |
|------------------|--------------------------|--------------------------|---------------|----------------|
| 2.39 | 29.201 | 23.411 | 1086.07 | 43.80 |
| 4.36 | 60.402 | 49.378 | 2239.02 | 90.60 |
| 6.00 | 28.118 | 23.783 | 1014.10 | 42.30 |
| 7.87 | 40.616 | 36.731 | 1469.26 | 60.90 |

Modulo di deformazione a taglio

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Modulo di deformazione a taglio (Kg/cm ²) |
|------------------|--------------------------|--------------------------|-----------------|---|
| 2.39 | 29.201 | 23.411 | Imai & Tomauchi | 220.05 |
| 4.36 | 60.402 | 49.378 | Imai & Tomauchi | 343.07 |
| 6.00 | 28.118 | 23.783 | Imai & Tomauchi | 215.02 |
| 7.87 | 40.616 | 36.731 | Imai & Tomauchi | 269.20 |

Grado di sovraconsolidazione

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Stress-History |
|------------------|--------------------------|--------------------------|----------------|
| 2.39 | 29.201 | 23.411 | 2.84 |
| 4.36 | 60.402 | 49.378 | 2.02 |
| 6.00 | 28.118 | 23.783 | 0.61 |
| 7.87 | 40.616 | 36.731 | 0.66 |

Peso unità di volume

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|--|
| 2.39 | 29.201 | 23.411 | Meyerhof | 2.04 |
| 4.36 | 60.402 | 49.378 | Meyerhof | 2.16 |
| 6.00 | 28.118 | 23.783 | Meyerhof | 2.02 |
| 7.87 | 40.616 | 36.731 | Meyerhof | 2.09 |

Peso unità di volume saturo

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume saturo (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|---|
| 2.39 | 29.201 | 23.411 | Meyerhof | 2.12 |
| 4.36 | 60.402 | 49.378 | Meyerhof | 2.24 |
| 6.00 | 28.118 | 23.783 | Meyerhof | 2.10 |
| 7.87 | 40.616 | 36.731 | Meyerhof | 2.17 |

Prova n. 4**TERRENI INCOERENTI**

Densità relativa (%)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Baldi 1978 - Schmertmann 1976 | Schmertmann | Harman | Lancellotta 1983 | Jamiolkowski 1985 |
|------------------|--------------------------|--------------------------|-------------------------------|-------------|--------|------------------|-------------------|
| 2.39 | 29.201 | 23.411 | 51.24 | 64.2 | 64.13 | 51.95 | 73.02 |
| 4.36 | 60.402 | 49.378 | 56.74 | 62.1 | 63.44 | 57.49 | 63.27 |
| 6.00 | 28.118 | 23.783 | 28.8 | 22.36 | 26.66 | 29.31 | 28.83 |
| 7.87 | 40.616 | 36.731 | 35.14 | 28.04 | 32.35 | 35.71 | 31.09 |

Angolo di resistenza al taglio (°)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Durgunou glu-Mitchell 1973 | Caquot | Koppejan | De Beer | Schmertmann | Robertson & Campanella 1983 | Herminier | Meyerhof 1951 |
|------------------|--------------------------|--------------------------|----------------------------|--------|----------|---------|-------------|-----------------------------|-----------|---------------|
| 2.39 | 29.201 | 23.411 | 37.04 | 33.64 | 30.84 | 28.77 | 36.99 | 41.75 | 29.07 | 30.11 |
| 4.36 | 60.402 | 49.378 | 35.72 | 31.95 | 29.06 | 27.15 | 36.69 | 39.96 | 27.05 | 44.12 |
| 6.00 | 28.118 | 23.783 | 30.09 | 25.99 | 22.8 | 21.44 | 31.13 | 32.82 | 22.93 | 29.62 |
| 7.87 | 40.616 | 36.731 | 30.55 | 26.38 | 23.21 | 21.81 | 31.93 | 33.33 | 23.1 | 35.24 |

Modulo di Young (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Schmertmann | Robertson & Campanella (1983) | ISOPT-1 1988 Ey(50) |
|------------------|--------------------------|--------------------------|-------------|-------------------------------|---------------------|
| 2.39 | 29.201 | 23.411 | 73.00 | 58.40 | 242.25 |
| 4.36 | 60.402 | 49.378 | 151.01 | 120.80 | 516.32 |
| 6.00 | 28.118 | 23.783 | 70.30 | 56.24 | 374.44 |
| 7.87 | 40.616 | 36.731 | 101.54 | 81.23 | 513.19 |

Modulo Edometrico (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Robertson & Campanella da Schmertmann | Lunne-Christoffersen 1983 - Robertson and Powell 1997 | Kulhawy-Mayne 1990 | Mitchell & Gardner 1975 | Buisman - Sanglerat |
|------------------|--------------------------|--------------------------|---------------------------------------|---|--------------------|-------------------------|---------------------|
| 2.39 | 29.201 | 23.411 | 54.39 | 114.55 | 230.69 | 58.40 | 146.01 |
| 4.36 | 60.402 | 49.378 | 59.00 | 236.94 | 484.34 | 102.68 | 90.60 |
| 6.00 | 28.118 | 23.783 | 31.09 | 110.30 | 214.85 | 56.24 | 140.59 |
| 7.87 | 40.616 | 36.731 | 40.17 | 159.32 | 314.99 | 81.23 | 121.85 |

Modulo di deformazione a taglio

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | G (Kg/cm ²) |
|------------------|--------------------------|--------------------------|-----------------|-------------------------|
| 2.39 | 29.201 | 23.411 | Imai & Tomauchi | 220.05 |
| 4.36 | 60.402 | 49.378 | Imai & Tomauchi | 343.07 |
| 6.00 | 28.118 | 23.783 | Imai & Tomauchi | 215.02 |
| 7.87 | 40.616 | 36.731 | Imai & Tomauchi | 269.20 |

Grado di sovraconsolidazione

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Stress-History | Piacentini Righi 1978 | Larsson 1991 S.G.I. | Ladd e Foot 1977 |
|------------------|--------------------------|--------------------------|----------------|-----------------------|---------------------|------------------|
| 2.39 | 29.201 | 23.411 | 2.84 | >9 | 1.16 | >9 |
| 4.36 | 60.402 | 49.378 | 2.02 | >9 | 1.44 | >9 |
| 6.00 | 28.118 | 23.783 | 0.61 | >9 | <0.5 | 6.84 |
| 7.87 | 40.616 | 36.731 | 0.66 | >9 | <0.5 | 7.58 |

Modulo di reazione Ko

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Ko |
|------------------|--------------------------|--------------------------|------------------------|------|
| 2.39 | 29.201 | 23.411 | Kulhawy & Mayne (1990) | 0.69 |
| 4.36 | 60.402 | 49.378 | Kulhawy & Mayne (1990) | 0.55 |
| 6.00 | 28.118 | 23.783 | Kulhawy & Mayne (1990) | 0.25 |
| 7.87 | 40.616 | 36.731 | Kulhawy & Mayne (1990) | 0.27 |

Prova n. 4

Fattori di compressibilità C Crm

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | C | Crm |
|------------------|--------------------------|--------------------------|---------|---------|
| 2.39 | 29.201 | 23.411 | 0.11255 | 0.01463 |
| 4.36 | 60.402 | 49.378 | 0.10145 | 0.01319 |
| 6.00 | 28.118 | 23.783 | 0.1143 | 0.01486 |
| 7.87 | 40.616 | 36.731 | 0.11138 | 0.01448 |

Peso unità di volume

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|--|
| 2.39 | 29.201 | 23.411 | Meyerhof | 1.80 |
| 4.36 | 60.402 | 49.378 | Meyerhof | 1.80 |
| 6.00 | 28.118 | 23.783 | Meyerhof | 1.80 |
| 7.87 | 40.616 | 36.731 | Meyerhof | 1.80 |

Peso unità di volume saturo

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume saturo (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|---|
| 2.39 | 29.201 | 23.411 | Meyerhof | 2.10 |
| 4.36 | 60.402 | 49.378 | Meyerhof | 2.10 |
| 6.00 | 28.118 | 23.783 | Meyerhof | 2.10 |
| 7.87 | 40.616 | 36.731 | Meyerhof | 2.10 |

Liquefazione - Accelerazione sismica massima (g)=0

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Fattore di sicurezza a liquefazione |
|------------------|--------------------------|--------------------------|------------------------|-------------------------------------|
| 2.39 | 29.201 | 23.411 | Robertson & Wride 1997 | 0 |
| 4.36 | 60.402 | 49.378 | Robertson & Wride 1997 | 0 |
| 6.00 | 28.118 | 23.783 | Robertson & Wride 1997 | 0 |
| 7.87 | 40.616 | 36.731 | Robertson & Wride 1997 | 0 |

Permeabilità

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Permeabilità (cm/s) |
|------------------|--------------------------|--------------------------|-----------------------|---------------------|
| 2.39 | 29.201 | 23.411 | Piacentini-Righi 1988 | 1E-11 |
| 4.36 | 60.402 | 49.378 | Piacentini-Righi 1988 | 1E-11 |
| 6.00 | 28.118 | 23.783 | Piacentini-Righi 1988 | 1E-11 |
| 7.87 | 40.616 | 36.731 | Piacentini-Righi 1988 | 1E-11 |

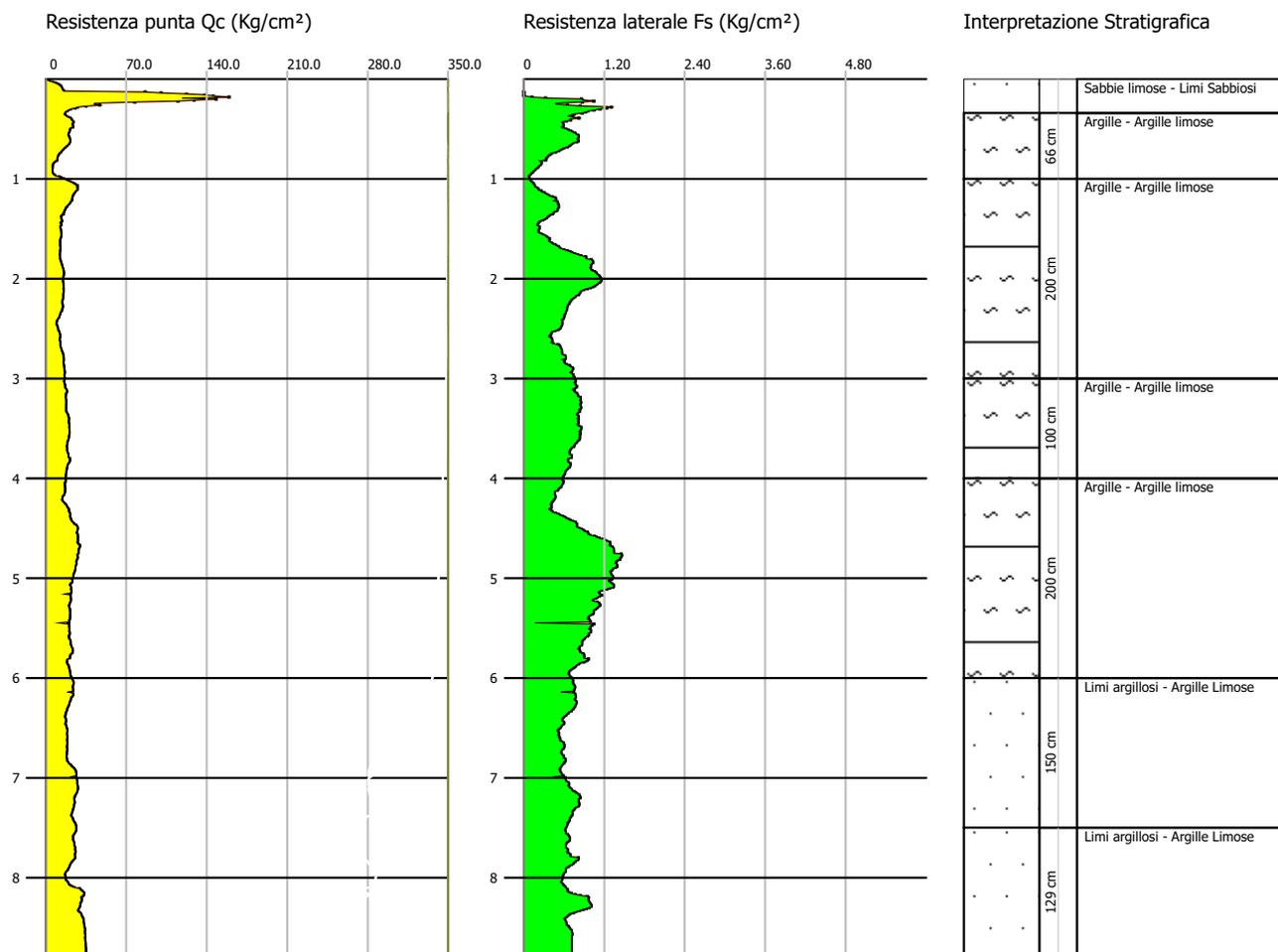
Coefficiente di consolidazione

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Coefficiente di consolidazione (cm ² /s) |
|------------------|--------------------------|--------------------------|-----------------------|---|
| 2.39 | 29.201 | 23.411 | Piacentini-Righi 1988 | 8.7603E-07 |
| 4.36 | 60.402 | 49.378 | Piacentini-Righi 1988 | 1.81206E-06 |
| 6.00 | 28.118 | 23.783 | Piacentini-Righi 1988 | 8.4354E-07 |
| 7.87 | 40.616 | 36.731 | Piacentini-Righi 1988 | 1.21848E-06 |

Probe CPTU - Piezocone Nr.5
Strumento utilizzato PAGANI 200 kN (CPTU)

Committente: Comune di Livorno
 Cantiere: Via di Vallin Buio - Livorno
 Località: Via di Vallin Buio - Livorno

Data: 08/01/2019



Prova n. 5

PROVA CPTU5_MS2

Committente: Comune di Livorno
 Strumento utilizzato: PAGANI 200 kN (CPTU)
 Prova eseguita in data: 08/01/2019
 Profondità prova: 8.79 mt
 Località: Via di Vallin Buio - Livorno

RESISTENZE / LITOLOGIE

Profondità
 qc Resistenza punta (Kg/cm²);
 fs Resistenza laterale (Kg/cm²);
 Tilt Inclinazione (°)
 Temp Temperatura (°)
 Fr fs/qcx100 (Schmertmann)
 qcn qc normalizzata (Kg/cm²);
 fsn fs normalizzato (Kg/cm²);
 U2 Pressione neutrale intorno al cono (Kg/cm²);
 Uo Pressione neutrale rilevata (Kg/cm²);
 Fc Contenuto in materiale fine(%)

| Profondità | qc | fs | U2 | Tilt | Temp | qc/fs | Fr | Uo | qcn | fsn | FC% |
|------------|--------|-----|-------|------|------|-------|-----|-----|--------|-----|-------|
| 0.01 | 0.918 | 0.0 | 0.00 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.082 | 0.0 | 0 |
| 0.02 | 2.957 | 0.0 | 0.01 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 1.957 | 0.0 | 90.1 |
| 0.03 | 5.71 | 0.0 | 0.00 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 4.71 | 0.0 | 62.02 |
| 0.04 | 8.362 | 0.0 | 0.00 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 7.362 | 0.0 | 50.43 |
| 0.05 | 10.299 | 0.0 | 0.00 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 9.299 | 0.0 | 45.03 |
| 0.06 | 11.625 | 0.0 | 0.00 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 10.625 | 0.0 | 42.14 |
| 0.07 | 12.644 | 0.0 | 0.00 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 11.644 | 0.0 | 40.23 |
| 0.08 | 13.358 | 0.0 | 0.00 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 12.358 | 0.0 | 39.02 |
| 0.09 | 13.766 | 0.0 | -0.01 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 12.766 | 0.0 | 38.37 |
| 0.10 | 14.072 | 0.0 | -0.08 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 13.072 | 0.0 | 37.91 |
| 0.11 | 14.48 | 0.0 | -0.06 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 13.48 | 0.0 | 37.3 |
| 0.12 | 15.397 | 0.0 | -0.03 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 14.397 | 0.0 | 36.04 |
| 0.13 | 86.573 | 0.0 | -0.19 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 85.573 | 0.0 | 11.96 |

Prova n. 5

| | | | | | | | | | | | |
|------|---------|-------|------|-----|-----|----------|-------|-----|---------|-------|-------|
| 0.14 | 100.44 | 0.01 | 0.00 | 0.2 | 0.0 | 10044.0 | 0.01 | 0.0 | 99.44 | 0.01 | 5.51 |
| 0.15 | 122.262 | 0.01 | 0.01 | 0.4 | 0.0 | 12226.2 | 0.008 | 0.0 | 121.262 | 0.008 | 4.95 |
| 0.16 | 138.271 | 0.0 | 0.00 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 137.271 | 0.0 | 8.26 |
| 0.17 | 145.511 | 0.01 | 0.00 | 1.2 | 0.0 | 14551.1 | 0.007 | 0.0 | 144.511 | 0.007 | 4.59 |
| 0.18 | 159.379 | 0.122 | 0.00 | 1.5 | 0.0 | 1306.385 | 0.077 | 0.0 | 158.379 | 0.077 | 0.15 |
| 0.19 | 118.489 | 0.326 | 0.00 | 2.2 | 0.0 | 363.463 | 0.275 | 0.0 | 117.489 | 0.275 | 3.54 |
| 0.20 | 148.162 | 0.867 | 0.00 | 3.7 | 0.0 | 170.89 | 0.585 | 0.0 | 147.162 | 0.585 | 4.94 |
| 0.21 | 128.992 | 0.877 | 0.00 | 2.4 | 0.0 | 147.083 | 0.68 | 0.0 | 127.992 | 0.68 | 6.54 |
| 0.22 | 114.92 | 1.05 | 0.00 | 2.5 | 0.0 | 109.448 | 0.914 | 0.0 | 113.92 | 0.914 | 9.04 |
| 0.23 | 77.395 | 0.877 | 0.00 | 2.5 | 0.0 | 88.25 | 1.133 | 0.0 | 76.395 | 1.134 | 13.93 |
| 0.24 | 42.42 | 0.479 | 0.00 | 2.6 | 0.0 | 88.559 | 1.129 | 0.0 | 41.42 | 1.131 | 20.65 |
| 0.25 | 42.012 | 0.479 | 0.00 | 2.6 | 0.0 | 87.708 | 1.14 | 0.0 | 41.012 | 1.142 | 20.86 |
| 0.26 | 47.008 | 0.653 | 0.00 | 2.6 | 0.0 | 71.988 | 1.389 | 0.0 | 46.008 | 1.391 | 21.2 |
| 0.27 | 35.18 | 0.846 | 0.00 | 2.7 | 0.0 | 41.584 | 2.405 | 0.0 | 34.18 | 2.409 | 31.26 |
| 0.28 | 27.328 | 1.315 | 0.01 | 2.6 | 0.0 | 20.782 | 4.812 | 0.0 | 26.328 | 4.822 | 45.82 |
| 0.29 | 25.594 | 1.244 | 0.01 | 2.6 | 0.0 | 20.574 | 4.861 | 0.0 | 24.594 | 4.872 | 47.26 |
| 0.30 | 21.516 | 1.142 | 0.01 | 2.6 | 0.0 | 18.841 | 5.308 | 0.0 | 20.516 | 5.323 | 52.37 |
| 0.31 | 19.272 | 1.05 | 0.01 | 2.6 | 0.0 | 18.354 | 5.448 | 0.0 | 18.272 | 5.467 | 55.25 |
| 0.32 | 18.049 | 0.959 | 0.03 | 2.6 | 0.0 | 18.821 | 5.313 | 0.0 | 17.049 | 5.333 | 56.26 |
| 0.33 | 16.519 | 0.928 | 0.04 | 2.7 | 0.0 | 17.801 | 5.618 | 0.0 | 15.519 | 5.641 | 59.39 |
| 0.34 | 16.519 | 0.877 | 0.09 | 2.7 | 0.0 | 18.836 | 5.309 | 0.0 | 15.519 | 5.332 | 58.31 |
| 0.35 | 15.805 | 0.755 | 0.16 | 2.7 | 0.0 | 20.934 | 4.777 | 0.0 | 14.805 | 4.799 | 57.39 |
| 0.36 | 16.417 | 0.704 | 0.31 | 2.7 | 0.0 | 23.32 | 4.288 | 0.0 | 15.417 | 4.308 | 54.56 |
| 0.37 | 17.437 | 0.673 | 0.33 | 2.7 | 0.0 | 25.909 | 3.86 | 0.0 | 16.437 | 3.877 | 51.37 |
| 0.38 | 18.966 | 0.734 | 0.39 | 2.8 | 0.0 | 25.839 | 3.87 | 0.0 | 17.966 | 3.886 | 49.58 |
| 0.39 | 21.006 | 0.826 | 0.42 | 2.8 | 0.0 | 25.431 | 3.932 | 0.0 | 20.006 | 3.947 | 47.68 |
| 0.40 | 21.822 | 0.693 | 0.44 | 2.8 | 0.0 | 31.489 | 3.176 | 0.0 | 20.822 | 3.188 | 43.54 |
| 0.41 | 22.127 | 0.704 | 0.45 | 2.7 | 0.0 | 31.43 | 3.182 | 0.0 | 21.127 | 3.194 | 43.29 |
| 0.42 | 22.943 | 0.642 | 0.46 | 2.7 | 0.0 | 35.737 | 2.798 | 0.0 | 21.943 | 2.809 | 40.7 |
| 0.43 | 24.065 | 0.571 | 0.47 | 2.7 | 0.0 | 42.145 | 2.373 | 0.0 | 23.065 | 2.382 | 37.54 |
| 0.44 | 22.943 | 0.581 | 0.47 | 2.7 | 0.0 | 39.489 | 2.532 | 0.0 | 21.943 | 2.542 | 39.31 |
| 0.45 | 22.535 | 0.581 | 0.47 | 2.7 | 0.0 | 38.787 | 2.578 | 0.0 | 21.535 | 2.589 | 39.9 |
| 0.46 | 22.637 | 0.591 | 0.47 | 2.7 | 0.0 | 38.303 | 2.611 | 0.0 | 21.637 | 2.622 | 39.99 |
| 0.47 | 23.453 | 0.591 | 0.46 | 2.7 | 0.0 | 39.684 | 2.52 | 0.0 | 22.453 | 2.53 | 38.83 |
| 0.48 | 23.351 | 0.561 | 0.44 | 2.7 | 0.0 | 41.624 | 2.402 | 0.0 | 22.351 | 2.413 | 38.26 |
| 0.49 | 21.006 | 0.581 | 0.42 | 2.7 | 0.0 | 36.155 | 2.766 | 0.0 | 20.006 | 2.779 | 42.26 |
| 0.50 | 20.394 | 0.632 | 0.40 | 2.7 | 0.0 | 32.269 | 3.099 | 0.0 | 19.394 | 3.115 | 44.54 |
| 0.51 | 20.394 | 0.663 | 0.39 | 2.7 | 0.0 | 30.76 | 3.251 | 0.0 | 19.394 | 3.268 | 45.28 |
| 0.52 | 20.292 | 0.704 | 0.37 | 2.7 | 0.0 | 28.824 | 3.469 | 0.0 | 19.292 | 3.488 | 46.4 |
| 0.53 | 19.986 | 0.724 | 0.36 | 2.7 | 0.0 | 27.605 | 3.623 | 0.0 | 18.986 | 3.642 | 47.41 |
| 0.54 | 19.476 | 0.765 | 0.37 | 2.7 | 0.0 | 25.459 | 3.928 | 0.0 | 18.476 | 3.95 | 49.28 |
| 0.55 | 19.272 | 0.775 | 0.35 | 2.7 | 0.0 | 24.867 | 4.021 | 0.0 | 18.272 | 4.045 | 49.9 |
| 0.56 | 19.068 | 0.806 | 0.33 | 2.7 | 0.0 | 23.658 | 4.227 | 0.0 | 18.068 | 4.253 | 50.98 |
| 0.57 | 19.374 | 0.816 | 0.32 | 2.7 | 0.0 | 23.743 | 4.212 | 0.0 | 18.374 | 4.237 | 50.58 |
| 0.58 | 19.986 | 0.816 | 0.30 | 2.7 | 0.0 | 24.493 | 4.083 | 0.0 | 18.986 | 4.107 | 49.38 |
| 0.59 | 20.292 | 0.806 | 0.29 | 2.7 | 0.0 | 25.176 | 3.972 | 0.0 | 19.292 | 3.996 | 48.6 |
| 0.60 | 20.598 | 0.795 | 0.27 | 2.7 | 0.0 | 25.909 | 3.86 | 0.0 | 19.598 | 3.883 | 47.82 |
| 0.61 | 20.7 | 0.806 | 0.24 | 2.8 | 0.0 | 25.682 | 3.894 | 0.0 | 19.7 | 3.917 | 47.86 |
| 0.62 | 20.904 | 0.816 | 0.20 | 2.8 | 0.0 | 25.618 | 3.904 | 0.0 | 19.904 | 3.927 | 47.7 |
| 0.63 | 20.598 | 0.795 | 0.17 | 2.7 | 0.0 | 25.909 | 3.86 | 0.0 | 19.598 | 3.884 | 47.82 |
| 0.64 | 20.088 | 0.734 | 0.14 | 2.7 | 0.0 | 27.368 | 3.654 | 0.0 | 19.088 | 3.678 | 47.46 |
| 0.65 | 19.578 | 0.714 | 0.11 | 2.7 | 0.0 | 27.42 | 3.647 | 0.0 | 18.578 | 3.672 | 47.97 |
| 0.66 | 18.661 | 0.693 | 0.09 | 2.7 | 0.0 | 26.928 | 3.714 | 0.0 | 17.661 | 3.741 | 49.29 |
| 0.67 | 17.743 | 0.673 | 0.07 | 2.7 | 0.0 | 26.364 | 3.793 | 0.0 | 16.743 | 3.822 | 50.75 |
| 0.68 | 16.825 | 0.653 | 0.06 | 2.7 | 0.0 | 25.766 | 3.881 | 0.0 | 15.825 | 3.913 | 52.33 |
| 0.69 | 15.703 | 0.602 | 0.05 | 2.7 | 0.0 | 26.085 | 3.834 | 0.0 | 14.703 | 3.868 | 53.72 |
| 0.70 | 15.092 | 0.571 | 0.04 | 2.8 | 0.0 | 26.431 | 3.783 | 0.0 | 14.092 | 3.819 | 54.43 |
| 0.71 | 14.174 | 0.54 | 0.04 | 2.7 | 0.0 | 26.248 | 3.81 | 0.0 | 13.174 | 3.849 | 56.07 |
| 0.72 | 13.358 | 0.52 | 0.04 | 2.8 | 0.0 | 25.688 | 3.893 | 0.0 | 12.358 | 3.936 | 57.92 |
| 0.73 | 12.746 | 0.479 | 0.03 | 2.8 | 0.0 | 26.61 | 3.758 | 0.0 | 11.746 | 3.802 | 58.49 |
| 0.74 | 11.625 | 0.418 | 0.02 | 2.7 | 0.0 | 27.811 | 3.596 | 0.0 | 10.625 | 3.643 | 60.12 |
| 0.75 | 11.013 | 0.398 | 0.02 | 2.7 | 0.0 | 27.671 | 3.614 | 0.0 | 10.013 | 3.664 | 61.67 |
| 0.76 | 10.503 | 0.377 | 0.02 | 2.7 | 0.0 | 27.859 | 3.589 | 0.0 | 9.503 | 3.643 | 62.86 |
| 0.77 | 10.095 | 0.357 | 0.01 | 2.7 | 0.0 | 28.277 | 3.536 | 0.0 | 9.095 | 3.592 | 63.71 |
| 0.78 | 9.789 | 0.347 | 0.01 | 2.7 | 0.0 | 28.21 | 3.545 | 0.0 | 8.789 | 3.603 | 64.63 |
| 0.79 | 9.687 | 0.326 | 0.01 | 2.7 | 0.0 | 29.715 | 3.365 | 0.0 | 8.687 | 3.422 | 64.01 |

Prova n. 5

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|-------|
| 0.80 | 9.687 | 0.326 | 0.01 | 2.7 | 0.0 | 29.715 | 3.365 | 0.0 | 8.687 | 3.422 | 64.01 |
| 0.81 | 9.687 | 0.326 | 0.01 | 2.7 | 0.0 | 29.715 | 3.365 | 0.0 | 8.687 | 3.423 | 64.02 |
| 0.82 | 8.26 | 0.235 | -0.07 | 2.7 | 0.0 | 35.149 | 2.845 | 0.0 | 7.26 | 2.903 | 65.82 |
| 0.83 | 7.036 | 0.265 | -0.01 | 2.7 | 0.0 | 26.551 | 3.766 | 0.0 | 6.036 | 3.858 | 76.12 |
| 0.84 | 6.322 | 0.255 | 0.00 | 2.7 | 0.0 | 24.792 | 4.034 | 0.0 | 5.322 | 4.144 | 81.26 |
| 0.85 | 5.812 | 0.255 | -0.01 | 2.7 | 0.0 | 22.792 | 4.387 | 0.0 | 4.812 | 4.52 | 86.15 |
| 0.86 | 5.506 | 0.245 | 0.00 | 2.7 | 0.0 | 22.473 | 4.45 | 0.0 | 4.506 | 4.594 | 88.57 |
| 0.87 | 5.506 | 0.224 | 0.00 | 2.7 | 0.0 | 24.58 | 4.068 | 0.0 | 4.506 | 4.202 | 86.69 |
| 0.88 | 5.506 | 0.214 | 0.00 | 2.7 | 0.0 | 25.729 | 3.887 | 0.0 | 4.506 | 4.016 | 85.76 |
| 0.89 | 5.506 | 0.194 | 0.00 | 2.7 | 0.0 | 28.381 | 3.523 | 0.0 | 4.506 | 3.642 | 83.79 |
| 0.90 | 5.404 | 0.173 | 0.00 | 2.7 | 0.0 | 31.237 | 3.201 | 0.0 | 4.404 | 3.312 | 82.65 |
| 0.91 | 5.404 | 0.163 | 0.00 | 2.7 | 0.0 | 33.153 | 3.016 | 0.0 | 4.404 | 3.122 | 81.52 |
| 0.92 | 5.404 | 0.143 | 0.00 | 2.8 | 0.0 | 37.79 | 2.646 | 0.0 | 4.404 | 2.74 | 79.11 |
| 0.93 | 5.404 | 0.133 | 0.00 | 2.8 | 0.0 | 40.632 | 2.461 | 0.0 | 4.404 | 2.549 | 77.83 |
| 0.94 | 5.608 | 0.112 | 0.00 | 2.8 | 0.0 | 50.071 | 1.997 | 0.0 | 4.608 | 2.067 | 72.92 |
| 0.95 | 5.914 | 0.102 | 0.00 | 2.8 | 0.0 | 57.98 | 1.725 | 0.0 | 4.914 | 1.782 | 68.71 |
| 0.96 | 6.832 | 0.082 | 0.00 | 2.8 | 0.0 | 83.317 | 1.2 | 0.0 | 5.832 | 1.235 | 58.86 |
| 0.97 | 8.056 | 0.071 | 0.01 | 2.8 | 0.0 | 113.465 | 0.881 | 0.0 | 7.056 | 0.903 | 50.33 |
| 0.98 | 11.727 | 0.071 | 0.02 | 2.9 | 0.0 | 165.169 | 0.605 | 0.0 | 10.727 | 0.616 | 37.35 |
| 0.99 | 13.358 | 0.071 | 0.02 | 2.9 | 0.0 | 188.141 | 0.532 | 0.0 | 12.358 | 0.539 | 33.51 |
| 1.00 | 15.295 | 0.082 | 0.02 | 2.9 | 0.0 | 186.524 | 0.536 | 0.0 | 14.295 | 0.543 | 30.86 |
| 1.01 | 17.335 | 0.092 | 0.03 | 2.9 | 0.0 | 188.424 | 0.531 | 0.0 | 16.335 | 0.537 | 28.44 |
| 1.02 | 19.17 | 0.092 | 0.03 | 2.9 | 0.0 | 208.37 | 0.48 | 0.0 | 18.17 | 0.485 | 25.97 |
| 1.03 | 21.006 | 0.112 | 0.03 | 2.9 | 0.0 | 187.554 | 0.533 | 0.0 | 20.006 | 0.538 | 25.13 |
| 1.04 | 22.943 | 0.133 | 0.04 | 2.9 | 0.0 | 172.504 | 0.58 | 0.0 | 21.943 | 0.585 | 24.28 |
| 1.05 | 24.575 | 0.143 | 0.04 | 2.9 | 0.0 | 171.853 | 0.582 | 0.0 | 23.575 | 0.587 | 23.23 |
| 1.06 | 25.9 | 0.153 | 0.04 | 2.9 | 0.0 | 169.281 | 0.591 | 0.0 | 24.9 | 0.596 | 22.53 |
| 1.07 | 27.532 | 0.163 | 0.04 | 2.9 | 0.0 | 168.908 | 0.592 | 0.0 | 26.532 | 0.597 | 21.63 |
| 1.08 | 26.512 | 0.163 | 0.04 | 2.9 | 0.0 | 162.65 | 0.615 | 0.0 | 25.512 | 0.62 | 22.45 |
| 1.09 | 26.92 | 0.194 | 0.04 | 2.9 | 0.0 | 138.763 | 0.721 | 0.0 | 25.92 | 0.727 | 23.39 |
| 1.10 | 27.328 | 0.214 | 0.04 | 2.9 | 0.0 | 127.701 | 0.783 | 0.0 | 26.328 | 0.789 | 23.82 |
| 1.11 | 26.614 | 0.214 | 0.04 | 2.9 | 0.0 | 124.364 | 0.804 | 0.0 | 25.614 | 0.811 | 24.44 |
| 1.12 | 25.594 | 0.255 | 0.05 | 2.9 | 0.0 | 100.369 | 0.996 | 0.0 | 24.594 | 1.005 | 26.89 |
| 1.13 | 25.187 | 0.265 | 0.05 | 2.9 | 0.0 | 95.045 | 1.052 | 0.0 | 24.187 | 1.062 | 27.66 |
| 1.14 | 24.269 | 0.306 | 0.05 | 3.0 | 0.0 | 79.31 | 1.261 | 0.0 | 23.269 | 1.273 | 30.05 |
| 1.15 | 23.861 | 0.326 | 0.05 | 3.0 | 0.0 | 73.193 | 1.366 | 0.0 | 22.861 | 1.38 | 31.17 |
| 1.16 | 23.249 | 0.357 | 0.05 | 3.0 | 0.0 | 65.123 | 1.536 | 0.0 | 22.249 | 1.551 | 32.91 |
| 1.17 | 23.045 | 0.377 | 0.05 | 3.0 | 0.0 | 61.127 | 1.636 | 0.0 | 22.045 | 1.653 | 33.78 |
| 1.18 | 22.535 | 0.428 | 0.05 | 3.0 | 0.0 | 52.652 | 1.899 | 0.0 | 21.535 | 1.919 | 35.98 |
| 1.19 | 22.637 | 0.469 | 0.05 | 3.0 | 0.0 | 48.267 | 2.072 | 0.0 | 21.637 | 2.094 | 36.98 |
| 1.20 | 22.026 | 0.479 | 0.06 | 3.0 | 0.0 | 45.983 | 2.175 | 0.0 | 21.026 | 2.199 | 38.13 |
| 1.21 | 22.739 | 0.479 | 0.06 | 3.0 | 0.0 | 47.472 | 2.107 | 0.0 | 21.739 | 2.129 | 37.11 |
| 1.22 | 21.72 | 0.449 | 0.06 | 3.0 | 0.0 | 48.374 | 2.067 | 0.0 | 20.72 | 2.091 | 37.74 |
| 1.23 | 20.904 | 0.5 | 0.06 | 3.0 | 0.0 | 41.808 | 2.392 | 0.0 | 19.904 | 2.42 | 40.41 |
| 1.24 | 20.598 | 0.5 | 0.06 | 3.0 | 0.0 | 41.196 | 2.427 | 0.0 | 19.598 | 2.457 | 40.91 |
| 1.25 | 19.782 | 0.51 | 0.06 | 3.0 | 0.0 | 38.788 | 2.578 | 0.0 | 18.782 | 2.611 | 42.57 |
| 1.26 | 18.966 | 0.51 | 0.06 | 3.0 | 0.0 | 37.188 | 2.689 | 0.0 | 17.966 | 2.725 | 44.04 |
| 1.27 | 18.253 | 0.52 | 0.06 | 3.0 | 0.0 | 35.102 | 2.849 | 0.0 | 17.253 | 2.889 | 45.7 |
| 1.28 | 17.335 | 0.52 | 0.06 | 3.0 | 0.0 | 33.337 | 3.0 | 0.0 | 16.335 | 3.045 | 47.61 |
| 1.29 | 16.927 | 0.51 | 0.06 | 3.0 | 0.0 | 33.19 | 3.013 | 0.0 | 15.927 | 3.059 | 48.2 |
| 1.30 | 16.621 | 0.5 | 0.06 | 3.0 | 0.0 | 33.242 | 3.008 | 0.0 | 15.621 | 3.056 | 48.58 |
| 1.31 | 16.111 | 0.5 | 0.06 | 3.0 | 0.0 | 32.222 | 3.103 | 0.0 | 15.111 | 3.155 | 49.78 |
| 1.32 | 15.499 | 0.489 | 0.06 | 3.0 | 0.0 | 31.695 | 3.155 | 0.0 | 14.499 | 3.21 | 50.93 |
| 1.33 | 15.703 | 0.449 | 0.06 | 3.1 | 0.0 | 34.973 | 2.859 | 0.0 | 14.703 | 2.908 | 49.09 |
| 1.34 | 14.48 | 0.438 | 0.06 | 3.1 | 0.0 | 33.059 | 3.025 | 0.0 | 13.48 | 3.082 | 51.86 |
| 1.35 | 15.295 | 0.428 | 0.06 | 3.1 | 0.0 | 35.736 | 2.798 | 0.0 | 14.295 | 2.848 | 49.36 |
| 1.36 | 13.562 | 0.387 | 0.06 | 3.1 | 0.0 | 35.044 | 2.854 | 0.0 | 12.562 | 2.912 | 52.51 |
| 1.37 | 12.644 | 0.367 | 0.06 | 3.1 | 0.0 | 34.452 | 2.903 | 0.0 | 11.644 | 2.967 | 54.52 |
| 1.38 | 12.644 | 0.347 | 0.06 | 3.1 | 0.0 | 36.438 | 2.744 | 0.0 | 11.644 | 2.805 | 53.63 |
| 1.39 | 13.052 | 0.337 | 0.06 | 3.1 | 0.0 | 38.73 | 2.582 | 0.0 | 12.052 | 2.638 | 51.9 |
| 1.40 | 13.052 | 0.316 | 0.06 | 3.1 | 0.0 | 41.304 | 2.421 | 0.0 | 12.052 | 2.474 | 50.92 |
| 1.41 | 13.256 | 0.286 | 0.07 | 3.1 | 0.0 | 46.35 | 2.158 | 0.0 | 12.256 | 2.204 | 48.87 |
| 1.42 | 13.868 | 0.245 | 0.06 | 3.1 | 0.0 | 56.604 | 1.767 | 0.0 | 12.868 | 1.803 | 45.08 |
| 1.43 | 12.644 | 0.224 | 0.06 | 3.1 | 0.0 | 56.446 | 1.772 | 0.0 | 11.644 | 1.812 | 47.28 |
| 1.44 | 12.236 | 0.214 | 0.06 | 3.1 | 0.0 | 57.178 | 1.749 | 0.0 | 11.236 | 1.791 | 47.9 |
| 1.45 | 12.746 | 0.204 | 0.07 | 3.1 | 0.0 | 62.48 | 1.601 | 0.0 | 11.746 | 1.637 | 45.76 |

Prova n. 5

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 1.46 | 13.358 | 0.194 | 0.07 | 3.1 | 0.0 | 68.856 | 1.452 | 0.0 | 12.358 | 1.485 | 43.46 |
| 1.47 | 12.236 | 0.204 | 0.07 | 3.1 | 0.0 | 59.98 | 1.667 | 0.0 | 11.236 | 1.708 | 47.27 |
| 1.48 | 12.134 | 0.235 | 0.07 | 3.1 | 0.0 | 51.634 | 1.937 | 0.0 | 11.134 | 1.985 | 49.5 |
| 1.49 | 12.236 | 0.235 | 0.07 | 3.1 | 0.0 | 52.068 | 1.921 | 0.0 | 11.236 | 1.968 | 49.18 |
| 1.50 | 12.338 | 0.224 | 0.07 | 3.1 | 0.0 | 55.08 | 1.816 | 0.0 | 11.338 | 1.86 | 48.21 |
| 1.51 | 12.644 | 0.214 | 0.07 | 3.1 | 0.0 | 59.084 | 1.693 | 0.0 | 11.644 | 1.734 | 46.69 |
| 1.52 | 12.542 | 0.214 | 0.07 | 3.2 | 0.0 | 58.607 | 1.706 | 0.0 | 11.542 | 1.748 | 46.99 |
| 1.53 | 12.848 | 0.214 | 0.07 | 3.1 | 0.0 | 60.037 | 1.666 | 0.0 | 11.848 | 1.706 | 46.1 |
| 1.54 | 13.052 | 0.224 | 0.07 | 3.1 | 0.0 | 58.268 | 1.716 | 0.0 | 12.052 | 1.757 | 46.13 |
| 1.55 | 13.052 | 0.255 | 0.07 | 3.1 | 0.0 | 51.184 | 1.954 | 0.0 | 12.052 | 2.001 | 47.87 |
| 1.56 | 13.154 | 0.286 | 0.07 | 3.1 | 0.0 | 45.993 | 2.174 | 0.0 | 12.154 | 2.226 | 49.19 |
| 1.57 | 13.052 | 0.316 | 0.07 | 3.1 | 0.0 | 41.304 | 2.421 | 0.0 | 12.052 | 2.48 | 50.96 |
| 1.58 | 12.746 | 0.337 | 0.07 | 3.2 | 0.0 | 37.822 | 2.644 | 0.0 | 11.746 | 2.71 | 52.89 |
| 1.59 | 12.44 | 0.357 | 0.07 | 3.2 | 0.0 | 34.846 | 2.87 | 0.0 | 11.44 | 2.944 | 54.8 |
| 1.60 | 12.032 | 0.387 | 0.07 | 3.1 | 0.0 | 31.09 | 3.216 | 0.0 | 11.032 | 3.303 | 57.54 |
| 1.61 | 11.829 | 0.377 | 0.07 | 3.1 | 0.0 | 31.377 | 3.187 | 0.0 | 10.829 | 3.275 | 57.84 |
| 1.62 | 11.829 | 0.377 | 0.07 | 3.2 | 0.0 | 31.377 | 3.187 | 0.0 | 10.829 | 3.276 | 57.84 |
| 1.63 | 11.829 | 0.377 | 0.07 | 3.2 | 0.0 | 31.377 | 3.187 | 0.0 | 10.829 | 3.276 | 57.84 |
| 1.64 | 11.829 | 0.408 | 0.07 | 3.2 | 0.0 | 28.993 | 3.449 | 0.0 | 10.829 | 3.546 | 59.2 |
| 1.65 | 11.93 | 0.428 | 0.08 | 3.2 | 0.0 | 27.874 | 3.588 | 0.0 | 10.93 | 3.688 | 59.66 |
| 1.66 | 11.829 | 0.469 | 0.07 | 3.2 | 0.0 | 25.222 | 3.965 | 0.0 | 10.829 | 4.078 | 61.68 |
| 1.67 | 11.93 | 0.489 | 0.07 | 3.2 | 0.0 | 24.397 | 4.099 | 0.0 | 10.93 | 4.215 | 62.06 |
| 1.68 | 12.032 | 0.52 | 0.07 | 3.2 | 0.0 | 23.138 | 4.322 | 0.0 | 11.032 | 4.444 | 62.82 |
| 1.69 | 12.236 | 0.53 | 0.07 | 3.2 | 0.0 | 23.087 | 4.331 | 0.0 | 11.236 | 4.453 | 62.41 |
| 1.70 | 12.338 | 0.551 | 0.07 | 3.2 | 0.0 | 22.392 | 4.466 | 0.0 | 11.338 | 4.591 | 62.76 |
| 1.71 | 11.93 | 0.602 | 0.07 | 3.2 | 0.0 | 19.817 | 5.046 | 0.0 | 10.93 | 5.193 | 66.03 |
| 1.72 | 11.829 | 0.653 | 0.07 | 3.2 | 0.0 | 18.115 | 5.52 | 0.0 | 10.829 | 5.684 | 68.07 |
| 1.73 | 11.829 | 0.693 | 0.07 | 3.2 | 0.0 | 17.069 | 5.858 | 0.0 | 10.829 | 6.033 | 69.3 |
| 1.74 | 11.727 | 0.724 | 0.07 | 3.2 | 0.0 | 16.198 | 6.174 | 0.0 | 10.727 | 6.36 | 70.65 |
| 1.75 | 11.625 | 0.765 | 0.07 | 3.2 | 0.0 | 15.196 | 6.581 | 0.0 | 10.625 | 6.782 | 72.26 |
| 1.76 | 11.625 | 0.806 | 0.07 | 3.2 | 0.0 | 14.423 | 6.933 | 0.0 | 10.625 | 7.147 | 73.41 |
| 1.77 | 11.727 | 0.857 | 0.07 | 3.2 | 0.0 | 13.684 | 7.308 | 0.0 | 10.727 | 7.532 | 74.32 |
| 1.78 | 11.727 | 0.928 | 0.08 | 3.2 | 0.0 | 12.637 | 7.913 | 0.0 | 10.727 | 8.158 | 76.12 |
| 1.79 | 11.727 | 0.928 | 0.08 | 3.2 | 0.0 | 12.637 | 7.913 | 0.0 | 10.727 | 8.159 | 76.13 |
| 1.80 | 11.727 | 0.928 | 0.08 | 3.2 | 0.0 | 12.637 | 7.913 | 0.0 | 10.727 | 8.161 | 76.13 |
| 1.81 | 12.236 | 1.01 | 0.08 | 3.2 | 0.0 | 12.115 | 8.254 | 0.0 | 11.236 | 8.503 | 75.87 |
| 1.82 | 12.44 | 1.02 | 0.09 | 3.2 | 0.0 | 12.196 | 8.199 | 0.0 | 11.44 | 8.443 | 75.24 |
| 1.83 | 12.746 | 1.03 | 0.09 | 3.2 | 0.0 | 12.375 | 8.081 | 0.0 | 11.746 | 8.317 | 74.22 |
| 1.84 | 12.848 | 1.03 | 0.09 | 3.2 | 0.0 | 12.474 | 8.017 | 0.0 | 11.848 | 8.25 | 73.81 |
| 1.85 | 13.154 | 1.01 | 0.09 | 3.2 | 0.0 | 13.024 | 7.678 | 0.0 | 12.154 | 7.898 | 72.19 |
| 1.86 | 13.46 | 0.999 | 0.09 | 3.1 | 0.0 | 13.473 | 7.422 | 0.0 | 12.46 | 7.63 | 70.8 |
| 1.87 | 13.766 | 0.999 | 0.09 | 3.1 | 0.0 | 13.78 | 7.257 | 0.0 | 12.766 | 7.457 | 69.7 |
| 1.88 | 13.97 | 0.999 | 0.09 | 3.1 | 0.0 | 13.984 | 7.151 | 0.0 | 12.97 | 7.346 | 68.99 |
| 1.89 | 14.276 | 0.989 | 0.09 | 3.1 | 0.0 | 14.435 | 6.928 | 0.0 | 13.276 | 7.114 | 67.73 |
| 1.90 | 14.582 | 0.999 | 0.09 | 3.1 | 0.0 | 14.597 | 6.851 | 0.0 | 13.582 | 7.032 | 66.94 |
| 1.91 | 14.786 | 0.999 | 0.09 | 3.1 | 0.0 | 14.801 | 6.756 | 0.0 | 13.786 | 6.933 | 66.29 |
| 1.92 | 14.99 | 1.02 | 0.09 | 3.1 | 0.0 | 14.696 | 6.805 | 0.0 | 13.99 | 6.981 | 66.08 |
| 1.93 | 15.194 | 1.06 | 0.09 | 3.1 | 0.0 | 14.334 | 6.976 | 0.0 | 14.194 | 7.156 | 66.26 |
| 1.94 | 15.194 | 1.081 | 0.09 | 3.1 | 0.0 | 14.056 | 7.115 | 0.0 | 14.194 | 7.299 | 66.68 |
| 1.95 | 15.295 | 1.081 | 0.09 | 3.1 | 0.0 | 14.149 | 7.068 | 0.0 | 14.295 | 7.25 | 66.37 |
| 1.96 | 15.194 | 1.101 | 0.09 | 3.1 | 0.0 | 13.8 | 7.246 | 0.0 | 14.194 | 7.436 | 67.08 |
| 1.97 | 14.99 | 1.122 | 0.09 | 3.2 | 0.0 | 13.36 | 7.485 | 0.0 | 13.99 | 7.685 | 68.13 |
| 1.98 | 14.684 | 1.132 | 0.09 | 3.1 | 0.0 | 12.972 | 7.709 | 0.0 | 13.684 | 7.92 | 69.33 |
| 1.99 | 14.582 | 1.142 | 0.09 | 3.1 | 0.0 | 12.769 | 7.832 | 0.0 | 13.582 | 8.049 | 69.86 |
| 2.00 | 14.48 | 1.152 | 0.09 | 3.2 | 0.0 | 12.569 | 7.956 | 0.0 | 13.48 | 8.179 | 70.4 |
| 2.01 | 14.276 | 1.162 | 0.09 | 3.2 | 0.0 | 12.286 | 8.14 | 0.0 | 13.276 | 8.373 | 71.3 |
| 2.02 | 14.378 | 1.152 | 0.09 | 3.2 | 0.0 | 12.481 | 8.012 | 0.0 | 13.378 | 8.241 | 70.76 |
| 2.03 | 14.378 | 1.142 | 0.09 | 3.2 | 0.0 | 12.59 | 7.943 | 0.0 | 13.378 | 8.171 | 70.57 |
| 2.04 | 14.582 | 1.122 | 0.09 | 3.2 | 0.0 | 12.996 | 7.694 | 0.0 | 13.582 | 7.913 | 69.49 |
| 2.05 | 14.888 | 1.101 | 0.09 | 3.2 | 0.0 | 13.522 | 7.395 | 0.0 | 13.888 | 7.602 | 68.08 |
| 2.06 | 14.99 | 1.081 | 0.09 | 3.2 | 0.0 | 13.867 | 7.211 | 0.0 | 13.99 | 7.413 | 67.36 |
| 2.07 | 14.786 | 1.06 | 0.09 | 3.2 | 0.0 | 13.949 | 7.169 | 0.0 | 13.786 | 7.373 | 67.59 |
| 2.08 | 15.092 | 1.03 | 0.10 | 3.2 | 0.0 | 14.652 | 6.825 | 0.0 | 14.092 | 7.016 | 66.02 |
| 2.09 | 14.99 | 0.999 | 0.10 | 3.2 | 0.0 | 15.005 | 6.664 | 0.0 | 13.99 | 6.854 | 65.7 |
| 2.10 | 14.888 | 0.948 | 0.10 | 3.2 | 0.0 | 15.705 | 6.368 | 0.0 | 13.888 | 6.55 | 64.93 |
| 2.11 | 14.99 | 0.897 | 0.10 | 3.2 | 0.0 | 16.711 | 5.984 | 0.0 | 13.99 | 6.155 | 63.49 |

Prova n. 5

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 2.12 | 15.092 | 0.857 | 0.10 | 3.2 | 0.0 | 17.61 | 5.679 | 0.0 | 14.092 | 5.841 | 62.27 |
| 2.13 | 15.092 | 0.846 | 0.10 | 3.2 | 0.0 | 17.839 | 5.606 | 0.0 | 14.092 | 5.767 | 62.02 |
| 2.14 | 14.888 | 0.836 | 0.10 | 3.2 | 0.0 | 17.809 | 5.615 | 0.0 | 13.888 | 5.78 | 62.4 |
| 2.15 | 14.582 | 0.826 | 0.10 | 3.2 | 0.0 | 17.654 | 5.665 | 0.0 | 13.582 | 5.835 | 63.11 |
| 2.16 | 14.684 | 0.816 | 0.10 | 3.2 | 0.0 | 17.995 | 5.557 | 0.0 | 13.684 | 5.724 | 62.55 |
| 2.17 | 14.582 | 0.775 | 0.10 | 3.1 | 0.0 | 18.815 | 5.315 | 0.0 | 13.582 | 5.476 | 61.86 |
| 2.18 | 14.48 | 0.765 | 0.10 | 3.1 | 0.0 | 18.928 | 5.283 | 0.0 | 13.48 | 5.445 | 61.92 |
| 2.19 | 14.48 | 0.744 | 0.10 | 3.1 | 0.0 | 19.462 | 5.138 | 0.0 | 13.48 | 5.297 | 61.39 |
| 2.20 | 14.48 | 0.724 | 0.10 | 3.2 | 0.0 | 20.0 | 5.0 | 0.0 | 13.48 | 5.155 | 60.87 |
| 2.21 | 14.072 | 0.704 | 0.10 | 3.1 | 0.0 | 19.989 | 5.003 | 0.0 | 13.072 | 5.163 | 61.61 |
| 2.22 | 13.766 | 0.704 | 0.10 | 3.1 | 0.0 | 19.554 | 5.114 | 0.0 | 12.766 | 5.283 | 62.61 |
| 2.23 | 13.766 | 0.683 | 0.10 | 3.1 | 0.0 | 20.155 | 4.961 | 0.0 | 12.766 | 5.126 | 62.03 |
| 2.24 | 13.868 | 0.683 | 0.10 | 3.2 | 0.0 | 20.305 | 4.925 | 0.0 | 12.868 | 5.088 | 61.7 |
| 2.25 | 13.868 | 0.673 | 0.10 | 3.2 | 0.0 | 20.606 | 4.853 | 0.0 | 12.868 | 5.014 | 61.42 |
| 2.26 | 14.276 | 0.653 | 0.10 | 3.2 | 0.0 | 21.862 | 4.574 | 0.0 | 13.276 | 4.722 | 59.56 |
| 2.27 | 14.378 | 0.653 | 0.10 | 3.2 | 0.0 | 22.018 | 4.542 | 0.0 | 13.378 | 4.688 | 59.25 |
| 2.28 | 14.378 | 0.642 | 0.10 | 3.2 | 0.0 | 22.396 | 4.465 | 0.0 | 13.378 | 4.61 | 58.94 |
| 2.29 | 14.072 | 0.642 | 0.10 | 3.2 | 0.0 | 21.919 | 4.562 | 0.0 | 13.072 | 4.714 | 59.89 |
| 2.30 | 13.868 | 0.642 | 0.10 | 3.2 | 0.0 | 21.601 | 4.629 | 0.0 | 12.868 | 4.787 | 60.54 |
| 2.31 | 13.562 | 0.642 | 0.10 | 3.2 | 0.0 | 21.125 | 4.734 | 0.0 | 12.562 | 4.899 | 61.54 |
| 2.32 | 13.46 | 0.632 | 0.10 | 3.2 | 0.0 | 21.297 | 4.695 | 0.0 | 12.46 | 4.861 | 61.59 |
| 2.33 | 12.746 | 0.622 | 0.10 | 3.2 | 0.0 | 20.492 | 4.88 | 0.0 | 11.746 | 5.063 | 63.78 |
| 2.34 | 12.338 | 0.622 | 0.10 | 3.2 | 0.0 | 19.836 | 5.041 | 0.0 | 11.338 | 5.238 | 65.3 |
| 2.35 | 12.032 | 0.612 | 0.10 | 3.2 | 0.0 | 19.66 | 5.086 | 0.0 | 11.032 | 5.291 | 66.17 |
| 2.36 | 11.727 | 0.602 | 0.10 | 3.2 | 0.0 | 19.48 | 5.133 | 0.0 | 10.727 | 5.347 | 67.08 |
| 2.37 | 11.421 | 0.602 | 0.10 | 3.2 | 0.0 | 18.972 | 5.271 | 0.0 | 10.421 | 5.497 | 68.36 |
| 2.38 | 11.217 | 0.602 | 0.10 | 3.2 | 0.0 | 18.633 | 5.367 | 0.0 | 10.217 | 5.602 | 69.25 |
| 2.39 | 10.707 | 0.591 | 0.10 | 3.2 | 0.0 | 18.117 | 5.52 | 0.0 | 9.707 | 5.775 | 71.2 |
| 2.40 | 10.095 | 0.591 | 0.09 | 3.2 | 0.0 | 17.081 | 5.854 | 0.0 | 9.095 | 6.144 | 74.22 |
| 2.41 | 9.483 | 0.561 | 0.09 | 3.2 | 0.0 | 16.904 | 5.916 | 0.0 | 8.483 | 6.23 | 76.4 |
| 2.42 | 9.177 | 0.571 | 0.09 | 3.2 | 0.0 | 16.072 | 6.222 | 0.0 | 8.177 | 6.565 | 78.56 |
| 2.43 | 9.075 | 0.571 | 0.09 | 3.2 | 0.0 | 15.893 | 6.292 | 0.0 | 8.075 | 6.645 | 79.17 |
| 2.44 | 8.769 | 0.571 | 0.09 | 3.2 | 0.0 | 15.357 | 6.512 | 0.0 | 7.769 | 6.892 | 81.08 |
| 2.45 | 8.769 | 0.571 | 0.09 | 3.2 | 0.0 | 15.357 | 6.512 | 0.0 | 7.769 | 6.893 | 81.08 |
| 2.46 | 8.871 | 0.571 | 0.09 | 3.2 | 0.0 | 15.536 | 6.437 | 0.0 | 7.871 | 6.811 | 80.44 |
| 2.47 | 9.279 | 0.561 | 0.10 | 3.2 | 0.0 | 16.54 | 6.046 | 0.0 | 8.279 | 6.383 | 77.59 |
| 2.48 | 9.687 | 0.551 | 0.10 | 3.2 | 0.0 | 17.581 | 5.688 | 0.0 | 8.687 | 5.992 | 74.92 |
| 2.49 | 9.891 | 0.551 | 0.10 | 3.2 | 0.0 | 17.951 | 5.571 | 0.0 | 8.891 | 5.863 | 73.83 |
| 2.50 | 10.095 | 0.53 | 0.10 | 3.2 | 0.0 | 19.047 | 5.25 | 0.0 | 9.095 | 5.521 | 71.97 |
| 2.51 | 10.095 | 0.51 | 0.10 | 3.2 | 0.0 | 19.794 | 5.052 | 0.0 | 9.095 | 5.314 | 71.19 |
| 2.52 | 10.503 | 0.469 | 0.10 | 3.2 | 0.0 | 22.394 | 4.465 | 0.0 | 9.503 | 4.688 | 67.56 |
| 2.53 | 11.115 | 0.418 | 0.10 | 3.2 | 0.0 | 26.591 | 3.761 | 0.0 | 10.115 | 3.938 | 62.71 |
| 2.54 | 11.421 | 0.408 | 0.10 | 3.2 | 0.0 | 27.993 | 3.572 | 0.0 | 10.421 | 3.737 | 61.04 |
| 2.55 | 11.625 | 0.398 | 0.10 | 3.2 | 0.0 | 29.209 | 3.424 | 0.0 | 10.625 | 3.579 | 59.81 |
| 2.56 | 11.829 | 0.398 | 0.10 | 3.3 | 0.0 | 29.721 | 3.365 | 0.0 | 10.829 | 3.515 | 59.05 |
| 2.57 | 12.134 | 0.377 | 0.10 | 3.2 | 0.0 | 32.186 | 3.107 | 0.0 | 11.134 | 3.243 | 57.02 |
| 2.58 | 11.93 | 0.377 | 0.10 | 3.2 | 0.0 | 31.645 | 3.16 | 0.0 | 10.93 | 3.302 | 57.75 |
| 2.59 | 11.93 | 0.398 | 0.10 | 3.2 | 0.0 | 29.975 | 3.336 | 0.0 | 10.93 | 3.486 | 58.68 |
| 2.60 | 11.625 | 0.408 | 0.10 | 3.2 | 0.0 | 28.493 | 3.51 | 0.0 | 10.625 | 3.672 | 60.26 |
| 2.61 | 11.421 | 0.418 | 0.11 | 3.2 | 0.0 | 27.323 | 3.66 | 0.0 | 10.421 | 3.833 | 61.49 |
| 2.62 | 11.523 | 0.418 | 0.11 | 3.2 | 0.0 | 27.567 | 3.628 | 0.0 | 10.523 | 3.799 | 61.09 |
| 2.63 | 12.032 | 0.418 | 0.11 | 3.2 | 0.0 | 28.785 | 3.474 | 0.0 | 11.032 | 3.631 | 59.17 |
| 2.64 | 12.134 | 0.408 | 0.11 | 3.2 | 0.0 | 29.74 | 3.362 | 0.0 | 11.134 | 3.514 | 58.38 |
| 2.65 | 12.134 | 0.438 | 0.11 | 3.2 | 0.0 | 27.703 | 3.61 | 0.0 | 11.134 | 3.773 | 59.62 |
| 2.66 | 12.338 | 0.51 | 0.11 | 3.3 | 0.0 | 24.192 | 4.134 | 0.0 | 11.338 | 4.318 | 61.62 |
| 2.67 | 12.236 | 0.53 | 0.11 | 3.3 | 0.0 | 23.087 | 4.331 | 0.0 | 11.236 | 4.527 | 62.72 |
| 2.68 | 12.338 | 0.54 | 0.11 | 3.3 | 0.0 | 22.848 | 4.377 | 0.0 | 11.338 | 4.573 | 62.69 |
| 2.69 | 12.542 | 0.551 | 0.11 | 3.3 | 0.0 | 22.762 | 4.393 | 0.0 | 11.542 | 4.588 | 62.32 |
| 2.70 | 12.95 | 0.551 | 0.11 | 3.3 | 0.0 | 23.503 | 4.255 | 0.0 | 11.95 | 4.438 | 60.87 |
| 2.71 | 13.154 | 0.561 | 0.11 | 3.3 | 0.0 | 23.447 | 4.265 | 0.0 | 12.154 | 4.446 | 60.51 |
| 2.72 | 13.256 | 0.561 | 0.11 | 3.3 | 0.0 | 23.629 | 4.232 | 0.0 | 12.256 | 4.411 | 60.16 |
| 2.73 | 13.664 | 0.571 | 0.11 | 3.3 | 0.0 | 23.93 | 4.179 | 0.0 | 12.664 | 4.351 | 59.15 |
| 2.74 | 14.072 | 0.561 | 0.11 | 3.3 | 0.0 | 25.084 | 3.987 | 0.0 | 13.072 | 4.146 | 57.55 |
| 2.75 | 14.378 | 0.571 | 0.11 | 3.3 | 0.0 | 25.18 | 3.971 | 0.0 | 13.378 | 4.128 | 56.95 |
| 2.76 | 14.582 | 0.571 | 0.11 | 3.3 | 0.0 | 25.538 | 3.916 | 0.0 | 13.582 | 4.068 | 56.35 |
| 2.77 | 14.99 | 0.612 | 0.11 | 3.3 | 0.0 | 24.493 | 4.083 | 0.0 | 13.99 | 4.238 | 56.41 |

Prova n. 5

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 2.78 | 14.888 | 0.622 | 0.11 | 3.3 | 0.0 | 23.936 | 4.178 | 0.0 | 13.888 | 4.338 | 56.99 |
| 2.79 | 14.888 | 0.622 | 0.11 | 3.3 | 0.0 | 23.936 | 4.178 | 0.0 | 13.888 | 4.339 | 56.99 |
| 2.80 | 14.888 | 0.622 | 0.11 | 3.3 | 0.0 | 23.936 | 4.178 | 0.0 | 13.888 | 4.339 | 56.99 |
| 2.81 | 15.295 | 0.571 | 0.13 | 3.3 | 0.0 | 26.786 | 3.733 | 0.0 | 14.295 | 3.874 | 54.36 |
| 2.82 | 15.092 | 0.602 | 0.13 | 3.3 | 0.0 | 25.07 | 3.989 | 0.0 | 14.092 | 4.142 | 55.84 |
| 2.83 | 14.888 | 0.602 | 0.13 | 3.3 | 0.0 | 24.731 | 4.044 | 0.0 | 13.888 | 4.202 | 56.42 |
| 2.84 | 14.786 | 0.602 | 0.13 | 3.3 | 0.0 | 24.561 | 4.071 | 0.0 | 13.786 | 4.232 | 56.71 |
| 2.85 | 15.092 | 0.612 | 0.13 | 3.3 | 0.0 | 24.66 | 4.055 | 0.0 | 14.092 | 4.213 | 56.14 |
| 2.86 | 15.092 | 0.642 | 0.13 | 3.3 | 0.0 | 23.508 | 4.254 | 0.0 | 14.092 | 4.42 | 57 |
| 2.87 | 15.194 | 0.683 | 0.13 | 3.3 | 0.0 | 22.246 | 4.495 | 0.0 | 14.194 | 4.67 | 57.84 |
| 2.88 | 15.397 | 0.693 | 0.13 | 3.3 | 0.0 | 22.218 | 4.501 | 0.0 | 14.397 | 4.674 | 57.53 |
| 2.89 | 15.499 | 0.724 | 0.13 | 3.3 | 0.0 | 21.407 | 4.671 | 0.0 | 14.499 | 4.85 | 58.06 |
| 2.90 | 15.601 | 0.734 | 0.13 | 3.3 | 0.0 | 21.255 | 4.705 | 0.0 | 14.601 | 4.885 | 58.03 |
| 2.91 | 15.703 | 0.724 | 0.13 | 3.3 | 0.0 | 21.689 | 4.611 | 0.0 | 14.703 | 4.786 | 57.5 |
| 2.92 | 15.805 | 0.724 | 0.14 | 3.3 | 0.0 | 21.83 | 4.581 | 0.0 | 14.805 | 4.755 | 57.22 |
| 2.93 | 16.111 | 0.704 | 0.14 | 3.3 | 0.0 | 22.885 | 4.37 | 0.0 | 15.111 | 4.533 | 55.9 |
| 2.94 | 16.111 | 0.693 | 0.14 | 3.3 | 0.0 | 23.248 | 4.301 | 0.0 | 15.111 | 4.463 | 55.62 |
| 2.95 | 15.907 | 0.714 | 0.14 | 3.3 | 0.0 | 22.279 | 4.489 | 0.0 | 14.907 | 4.66 | 56.7 |
| 2.96 | 15.805 | 0.734 | 0.14 | 3.3 | 0.0 | 21.533 | 4.644 | 0.0 | 14.805 | 4.823 | 57.49 |
| 2.97 | 15.601 | 0.734 | 0.14 | 3.3 | 0.0 | 21.255 | 4.705 | 0.0 | 14.601 | 4.889 | 58.05 |
| 2.98 | 15.907 | 0.734 | 0.14 | 3.3 | 0.0 | 21.672 | 4.614 | 0.0 | 14.907 | 4.792 | 57.21 |
| 2.99 | 15.805 | 0.755 | 0.14 | 3.3 | 0.0 | 20.934 | 4.777 | 0.0 | 14.805 | 4.963 | 58.02 |
| 3.00 | 16.111 | 0.755 | 0.14 | 3.3 | 0.0 | 21.339 | 4.686 | 0.0 | 15.111 | 4.866 | 57.19 |
| 3.01 | 15.907 | 0.755 | 0.14 | 3.3 | 0.0 | 21.069 | 4.746 | 0.0 | 14.907 | 4.931 | 57.74 |
| 3.02 | 15.397 | 0.775 | 0.14 | 3.3 | 0.0 | 19.867 | 5.033 | 0.0 | 14.397 | 5.237 | 59.66 |
| 3.03 | 15.295 | 0.765 | 0.14 | 3.3 | 0.0 | 19.993 | 5.002 | 0.0 | 14.295 | 5.206 | 59.71 |
| 3.04 | 15.703 | 0.755 | 0.14 | 3.3 | 0.0 | 20.799 | 4.808 | 0.0 | 14.703 | 5.0 | 58.31 |
| 3.05 | 15.703 | 0.765 | 0.14 | 3.3 | 0.0 | 20.527 | 4.872 | 0.0 | 14.703 | 5.067 | 58.56 |
| 3.06 | 16.111 | 0.765 | 0.14 | 3.3 | 0.0 | 21.06 | 4.748 | 0.0 | 15.111 | 4.934 | 57.45 |
| 3.07 | 16.417 | 0.775 | 0.14 | 3.3 | 0.0 | 21.183 | 4.721 | 0.0 | 15.417 | 4.902 | 56.89 |
| 3.08 | 16.315 | 0.795 | 0.14 | 3.3 | 0.0 | 20.522 | 4.873 | 0.0 | 15.315 | 5.062 | 57.63 |
| 3.09 | 16.213 | 0.775 | 0.14 | 3.3 | 0.0 | 20.92 | 4.78 | 0.0 | 15.213 | 4.968 | 57.43 |
| 3.10 | 16.519 | 0.755 | 0.14 | 3.2 | 0.0 | 21.879 | 4.57 | 0.0 | 15.519 | 4.747 | 56.15 |
| 3.11 | 17.539 | 0.724 | 0.14 | 3.3 | 0.0 | 24.225 | 4.128 | 0.0 | 16.539 | 4.278 | 52.93 |
| 3.12 | 17.845 | 0.744 | 0.14 | 3.3 | 0.0 | 23.985 | 4.169 | 0.0 | 16.845 | 4.319 | 52.71 |
| 3.13 | 18.049 | 0.755 | 0.14 | 3.3 | 0.0 | 23.906 | 4.183 | 0.0 | 17.049 | 4.332 | 52.51 |
| 3.14 | 17.743 | 0.765 | 0.14 | 3.3 | 0.0 | 23.193 | 4.312 | 0.0 | 16.743 | 4.468 | 53.43 |
| 3.15 | 16.927 | 0.795 | 0.14 | 3.3 | 0.0 | 21.292 | 4.697 | 0.0 | 15.927 | 4.876 | 56.08 |
| 3.16 | 16.927 | 0.795 | 0.14 | 3.3 | 0.0 | 21.292 | 4.697 | 0.0 | 15.927 | 4.877 | 56.08 |
| 3.17 | 16.825 | 0.806 | 0.14 | 3.3 | 0.0 | 20.875 | 4.79 | 0.0 | 15.825 | 4.976 | 56.59 |
| 3.18 | 16.927 | 0.806 | 0.14 | 3.3 | 0.0 | 21.001 | 4.762 | 0.0 | 15.927 | 4.946 | 56.34 |
| 3.19 | 16.723 | 0.846 | 0.14 | 3.3 | 0.0 | 19.767 | 5.059 | 0.0 | 15.723 | 5.258 | 57.76 |
| 3.20 | 16.723 | 0.846 | 0.14 | 3.3 | 0.0 | 19.767 | 5.059 | 0.0 | 15.723 | 5.258 | 57.76 |
| 3.21 | 17.335 | 0.846 | 0.15 | 3.3 | 0.0 | 20.491 | 4.88 | 0.0 | 16.335 | 5.066 | 56.23 |
| 3.22 | 17.131 | 0.836 | 0.15 | 3.3 | 0.0 | 20.492 | 4.88 | 0.0 | 16.131 | 5.069 | 56.51 |
| 3.23 | 17.233 | 0.846 | 0.15 | 3.3 | 0.0 | 20.37 | 4.909 | 0.0 | 16.233 | 5.099 | 56.49 |
| 3.24 | 17.437 | 0.857 | 0.15 | 3.3 | 0.0 | 20.347 | 4.915 | 0.0 | 16.437 | 5.103 | 56.23 |
| 3.25 | 17.233 | 0.836 | 0.15 | 3.3 | 0.0 | 20.614 | 4.851 | 0.0 | 16.233 | 5.039 | 56.27 |
| 3.26 | 17.233 | 0.836 | 0.15 | 3.3 | 0.0 | 20.614 | 4.851 | 0.0 | 16.233 | 5.04 | 56.27 |
| 3.27 | 17.029 | 0.846 | 0.15 | 3.3 | 0.0 | 20.129 | 4.968 | 0.0 | 16.029 | 5.164 | 57 |
| 3.28 | 17.233 | 0.846 | 0.15 | 3.3 | 0.0 | 20.37 | 4.909 | 0.0 | 16.233 | 5.102 | 56.5 |
| 3.29 | 17.029 | 0.857 | 0.15 | 3.3 | 0.0 | 19.87 | 5.033 | 0.0 | 16.029 | 5.233 | 57.25 |
| 3.30 | 17.029 | 0.846 | 0.15 | 3.3 | 0.0 | 20.129 | 4.968 | 0.0 | 16.029 | 5.166 | 57.01 |
| 3.31 | 17.131 | 0.826 | 0.15 | 3.3 | 0.0 | 20.74 | 4.822 | 0.0 | 16.131 | 5.014 | 56.31 |
| 3.32 | 17.233 | 0.826 | 0.15 | 3.3 | 0.0 | 20.863 | 4.793 | 0.0 | 16.233 | 4.983 | 56.06 |
| 3.33 | 17.131 | 0.836 | 0.15 | 3.3 | 0.0 | 20.492 | 4.88 | 0.0 | 16.131 | 5.076 | 56.54 |
| 3.34 | 17.641 | 0.806 | 0.15 | 3.3 | 0.0 | 21.887 | 4.569 | 0.0 | 16.641 | 4.747 | 54.64 |
| 3.35 | 18.151 | 0.795 | 0.15 | 3.3 | 0.0 | 22.831 | 4.38 | 0.0 | 17.151 | 4.546 | 53.23 |
| 3.36 | 18.559 | 0.785 | 0.15 | 3.3 | 0.0 | 23.642 | 4.23 | 0.0 | 17.559 | 4.387 | 52.11 |
| 3.37 | 19.068 | 0.795 | 0.15 | 3.3 | 0.0 | 23.985 | 4.169 | 0.0 | 18.068 | 4.321 | 51.25 |
| 3.38 | 19.068 | 0.816 | 0.15 | 3.3 | 0.0 | 23.368 | 4.279 | 0.0 | 18.068 | 4.435 | 51.71 |
| 3.39 | 19.476 | 0.816 | 0.15 | 3.3 | 0.0 | 23.868 | 4.19 | 0.0 | 18.476 | 4.339 | 50.87 |
| 3.40 | 19.782 | 0.795 | 0.15 | 3.3 | 0.0 | 24.883 | 4.019 | 0.0 | 18.782 | 4.161 | 49.82 |
| 3.41 | 19.578 | 0.816 | 0.16 | 3.3 | 0.0 | 23.993 | 4.168 | 0.0 | 18.578 | 4.317 | 50.67 |
| 3.42 | 19.374 | 0.806 | 0.15 | 3.3 | 0.0 | 24.037 | 4.16 | 0.0 | 18.374 | 4.311 | 50.87 |
| 3.43 | 19.374 | 0.806 | 0.15 | 3.3 | 0.0 | 24.037 | 4.16 | 0.0 | 18.374 | 4.311 | 50.87 |

Prova n. 5

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 3.44 | 19.374 | 0.816 | 0.16 | 3.3 | 0.0 | 23.743 | 4.212 | 0.0 | 18.374 | 4.365 | 51.09 |
| 3.45 | 19.578 | 0.806 | 0.16 | 3.3 | 0.0 | 24.29 | 4.117 | 0.0 | 18.578 | 4.266 | 50.47 |
| 3.46 | 20.088 | 0.795 | 0.16 | 3.3 | 0.0 | 25.268 | 3.958 | 0.0 | 19.088 | 4.097 | 49.24 |
| 3.47 | 19.884 | 0.806 | 0.16 | 3.3 | 0.0 | 24.67 | 4.054 | 0.0 | 18.884 | 4.199 | 49.86 |
| 3.48 | 19.986 | 0.836 | 0.16 | 3.3 | 0.0 | 23.907 | 4.183 | 0.0 | 18.986 | 4.332 | 50.29 |
| 3.49 | 19.986 | 0.857 | 0.16 | 3.3 | 0.0 | 23.321 | 4.288 | 0.0 | 18.986 | 4.442 | 50.72 |
| 3.50 | 19.884 | 0.857 | 0.16 | 3.3 | 0.0 | 23.202 | 4.31 | 0.0 | 18.884 | 4.466 | 50.92 |
| 3.51 | 20.088 | 0.846 | 0.16 | 3.3 | 0.0 | 23.745 | 4.211 | 0.0 | 19.088 | 4.363 | 50.3 |
| 3.52 | 20.088 | 0.846 | 0.16 | 3.3 | 0.0 | 23.745 | 4.211 | 0.0 | 19.088 | 4.363 | 50.3 |
| 3.53 | 20.088 | 0.826 | 0.16 | 3.3 | 0.0 | 24.32 | 4.112 | 0.0 | 19.088 | 4.26 | 49.89 |
| 3.54 | 20.19 | 0.836 | 0.16 | 3.3 | 0.0 | 24.151 | 4.141 | 0.0 | 19.19 | 4.29 | 49.9 |
| 3.55 | 20.088 | 0.846 | 0.16 | 3.3 | 0.0 | 23.745 | 4.211 | 0.0 | 19.088 | 4.364 | 50.31 |
| 3.56 | 19.884 | 0.826 | 0.16 | 3.3 | 0.0 | 24.073 | 4.154 | 0.0 | 18.884 | 4.307 | 50.3 |
| 3.57 | 19.782 | 0.836 | 0.16 | 3.3 | 0.0 | 23.663 | 4.226 | 0.0 | 18.782 | 4.383 | 50.71 |
| 3.58 | 19.476 | 0.836 | 0.16 | 3.3 | 0.0 | 23.297 | 4.292 | 0.0 | 18.476 | 4.455 | 51.33 |
| 3.59 | 19.884 | 0.826 | 0.16 | 3.3 | 0.0 | 24.073 | 4.154 | 0.0 | 18.884 | 4.308 | 50.3 |
| 3.60 | 19.272 | 0.836 | 0.16 | 3.3 | 0.0 | 23.053 | 4.338 | 0.0 | 18.272 | 4.505 | 51.75 |
| 3.61 | 18.966 | 0.826 | 0.16 | 3.3 | 0.0 | 22.961 | 4.355 | 0.0 | 17.966 | 4.526 | 52.18 |
| 3.62 | 18.864 | 0.806 | 0.16 | 3.3 | 0.0 | 23.404 | 4.273 | 0.0 | 17.864 | 4.442 | 51.97 |
| 3.63 | 18.355 | 0.795 | 0.16 | 3.3 | 0.0 | 23.088 | 4.331 | 0.0 | 17.355 | 4.508 | 52.83 |
| 3.64 | 18.253 | 0.785 | 0.16 | 3.3 | 0.0 | 23.252 | 4.301 | 0.0 | 17.253 | 4.478 | 52.84 |
| 3.65 | 18.253 | 0.765 | 0.16 | 3.3 | 0.0 | 23.86 | 4.191 | 0.0 | 17.253 | 4.364 | 52.39 |
| 3.66 | 18.151 | 0.755 | 0.16 | 3.3 | 0.0 | 24.041 | 4.16 | 0.0 | 17.151 | 4.333 | 52.38 |
| 3.67 | 17.743 | 0.755 | 0.16 | 3.3 | 0.0 | 23.501 | 4.255 | 0.0 | 16.743 | 4.437 | 53.31 |
| 3.68 | 17.539 | 0.744 | 0.17 | 3.3 | 0.0 | 23.574 | 4.242 | 0.0 | 16.539 | 4.426 | 53.52 |
| 3.69 | 17.947 | 0.714 | 0.17 | 3.3 | 0.0 | 25.136 | 3.978 | 0.0 | 16.947 | 4.147 | 51.88 |
| 3.70 | 17.845 | 0.704 | 0.18 | 3.3 | 0.0 | 25.348 | 3.945 | 0.0 | 16.845 | 4.114 | 51.87 |
| 3.71 | 17.845 | 0.693 | 0.19 | 3.3 | 0.0 | 25.75 | 3.883 | 0.0 | 16.845 | 4.05 | 51.6 |
| 3.72 | 17.947 | 0.683 | 0.20 | 3.3 | 0.0 | 26.277 | 3.806 | 0.0 | 16.947 | 3.969 | 51.13 |
| 3.73 | 18.151 | 0.683 | 0.20 | 3.3 | 0.0 | 26.575 | 3.763 | 0.0 | 17.151 | 3.923 | 50.68 |
| 3.74 | 18.457 | 0.673 | 0.20 | 3.3 | 0.0 | 27.425 | 3.646 | 0.0 | 17.457 | 3.799 | 49.78 |
| 3.75 | 18.762 | 0.683 | 0.20 | 3.3 | 0.0 | 27.47 | 3.64 | 0.0 | 17.762 | 3.79 | 49.39 |
| 3.76 | 19.272 | 0.683 | 0.20 | 3.3 | 0.0 | 28.217 | 3.544 | 0.0 | 18.272 | 3.686 | 48.37 |
| 3.77 | 19.272 | 0.714 | 0.20 | 3.3 | 0.0 | 26.992 | 3.705 | 0.0 | 18.272 | 3.854 | 49.1 |
| 3.78 | 19.272 | 0.714 | 0.20 | 3.3 | 0.0 | 26.992 | 3.705 | 0.0 | 18.272 | 3.855 | 49.1 |
| 3.79 | 19.272 | 0.714 | 0.20 | 3.3 | 0.0 | 26.992 | 3.705 | 0.0 | 18.272 | 3.855 | 49.1 |
| 3.80 | 20.496 | 0.663 | 0.44 | 3.3 | 0.0 | 30.914 | 3.235 | 0.0 | 19.496 | 3.358 | 45.6 |
| 3.81 | 20.496 | 0.653 | 0.44 | 3.3 | 0.0 | 31.387 | 3.186 | 0.0 | 19.496 | 3.308 | 45.36 |
| 3.82 | 20.496 | 0.653 | 0.44 | 3.3 | 0.0 | 31.387 | 3.186 | 0.0 | 19.496 | 3.308 | 45.36 |
| 3.83 | 20.292 | 0.653 | 0.44 | 3.3 | 0.0 | 31.075 | 3.218 | 0.0 | 19.292 | 3.343 | 45.73 |
| 3.84 | 19.782 | 0.663 | 0.44 | 3.3 | 0.0 | 29.837 | 3.352 | 0.0 | 18.782 | 3.486 | 46.92 |
| 3.85 | 19.068 | 0.693 | 0.44 | 3.3 | 0.0 | 27.515 | 3.634 | 0.0 | 18.068 | 3.786 | 49.03 |
| 3.86 | 18.457 | 0.693 | 0.44 | 3.3 | 0.0 | 26.633 | 3.755 | 0.0 | 17.457 | 3.917 | 50.29 |
| 3.87 | 18.457 | 0.693 | 0.45 | 3.3 | 0.0 | 26.633 | 3.755 | 0.0 | 17.457 | 3.917 | 50.3 |
| 3.88 | 18.151 | 0.683 | 0.45 | 3.3 | 0.0 | 26.575 | 3.763 | 0.0 | 17.151 | 3.929 | 50.71 |
| 3.89 | 17.947 | 0.673 | 0.45 | 3.3 | 0.0 | 26.667 | 3.75 | 0.0 | 16.947 | 3.918 | 50.91 |
| 3.90 | 17.641 | 0.653 | 0.45 | 3.3 | 0.0 | 27.015 | 3.702 | 0.0 | 16.641 | 3.871 | 51.09 |
| 3.91 | 17.743 | 0.642 | 0.45 | 3.3 | 0.0 | 27.637 | 3.618 | 0.0 | 16.743 | 3.783 | 50.58 |
| 3.92 | 17.437 | 0.622 | 0.45 | 3.3 | 0.0 | 28.034 | 3.567 | 0.0 | 16.437 | 3.733 | 50.74 |
| 3.93 | 17.335 | 0.612 | 0.45 | 3.3 | 0.0 | 28.325 | 3.53 | 0.0 | 16.335 | 3.696 | 50.71 |
| 3.94 | 17.335 | 0.612 | 0.45 | 3.3 | 0.0 | 28.325 | 3.53 | 0.0 | 16.335 | 3.697 | 50.71 |
| 3.95 | 17.029 | 0.612 | 0.45 | 3.3 | 0.0 | 27.825 | 3.594 | 0.0 | 16.029 | 3.767 | 51.42 |
| 3.96 | 16.927 | 0.602 | 0.45 | 3.3 | 0.0 | 28.118 | 3.556 | 0.0 | 15.927 | 3.729 | 51.39 |
| 3.97 | 16.825 | 0.591 | 0.45 | 3.3 | 0.0 | 28.469 | 3.513 | 0.0 | 15.825 | 3.685 | 51.32 |
| 3.98 | 16.825 | 0.581 | 0.45 | 3.3 | 0.0 | 28.959 | 3.453 | 0.0 | 15.825 | 3.623 | 51.04 |
| 3.99 | 16.723 | 0.581 | 0.45 | 3.3 | 0.0 | 28.783 | 3.474 | 0.0 | 15.723 | 3.646 | 51.29 |
| 4.00 | 16.621 | 0.571 | 0.45 | 3.3 | 0.0 | 29.109 | 3.435 | 0.0 | 15.621 | 3.607 | 51.24 |
| 4.01 | 16.825 | 0.561 | 0.45 | 3.3 | 0.0 | 29.991 | 3.334 | 0.0 | 15.825 | 3.499 | 50.47 |
| 4.02 | 16.723 | 0.571 | 0.45 | 3.3 | 0.0 | 29.287 | 3.414 | 0.0 | 15.723 | 3.585 | 51 |
| 4.03 | 16.825 | 0.591 | 0.45 | 3.3 | 0.0 | 28.469 | 3.513 | 0.0 | 15.825 | 3.687 | 51.33 |
| 4.04 | 16.009 | 0.581 | 0.45 | 3.3 | 0.0 | 27.554 | 3.629 | 0.0 | 15.009 | 3.82 | 53.06 |
| 4.05 | 15.805 | 0.581 | 0.46 | 3.3 | 0.0 | 27.203 | 3.676 | 0.0 | 14.805 | 3.872 | 53.59 |
| 4.06 | 16.009 | 0.571 | 0.46 | 3.3 | 0.0 | 28.037 | 3.567 | 0.0 | 15.009 | 3.755 | 52.77 |
| 4.07 | 16.111 | 0.561 | 0.47 | 3.3 | 0.0 | 28.718 | 3.482 | 0.0 | 15.111 | 3.665 | 52.22 |
| 4.08 | 16.009 | 0.561 | 0.47 | 3.3 | 0.0 | 28.537 | 3.504 | 0.0 | 15.009 | 3.69 | 52.48 |
| 4.09 | 16.111 | 0.54 | 0.48 | 3.3 | 0.0 | 29.835 | 3.352 | 0.0 | 15.111 | 3.529 | 51.59 |

Prova n. 5

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 4.10 | 16.213 | 0.52 | 0.48 | 3.3 | 0.0 | 31.179 | 3.207 | 0.0 | 15.213 | 3.376 | 50.72 |
| 4.11 | 16.213 | 0.51 | 0.48 | 3.3 | 0.0 | 31.79 | 3.146 | 0.0 | 15.213 | 3.312 | 50.41 |
| 4.12 | 16.009 | 0.5 | 0.48 | 3.3 | 0.0 | 32.018 | 3.123 | 0.0 | 15.009 | 3.291 | 50.59 |
| 4.13 | 16.213 | 0.459 | 0.49 | 3.3 | 0.0 | 35.322 | 2.831 | 0.0 | 15.213 | 2.981 | 48.75 |
| 4.14 | 16.111 | 0.459 | 0.49 | 3.3 | 0.0 | 35.1 | 2.849 | 0.0 | 15.111 | 3.002 | 49 |
| 4.15 | 15.907 | 0.459 | 0.49 | 3.3 | 0.0 | 34.656 | 2.886 | 0.0 | 14.907 | 3.042 | 49.49 |
| 4.16 | 15.499 | 0.459 | 0.49 | 3.3 | 0.0 | 33.767 | 2.961 | 0.0 | 14.499 | 3.127 | 50.52 |
| 4.17 | 14.786 | 0.459 | 0.49 | 3.3 | 0.0 | 32.214 | 3.104 | 0.0 | 13.786 | 3.288 | 52.41 |
| 4.18 | 14.174 | 0.469 | 0.49 | 3.3 | 0.0 | 30.222 | 3.309 | 0.0 | 13.174 | 3.514 | 54.51 |
| 4.19 | 13.97 | 0.469 | 0.49 | 3.3 | 0.0 | 29.787 | 3.357 | 0.0 | 12.97 | 3.569 | 55.12 |
| 4.20 | 13.97 | 0.459 | 0.50 | 3.3 | 0.0 | 30.436 | 3.286 | 0.0 | 12.97 | 3.493 | 54.76 |
| 4.21 | 13.562 | 0.449 | 0.50 | 3.3 | 0.0 | 30.205 | 3.311 | 0.0 | 12.562 | 3.527 | 55.65 |
| 4.22 | 13.868 | 0.438 | 0.51 | 3.4 | 0.0 | 31.662 | 3.158 | 0.0 | 12.868 | 3.36 | 54.29 |
| 4.23 | 14.174 | 0.428 | 0.51 | 3.4 | 0.0 | 33.117 | 3.02 | 0.0 | 13.174 | 3.209 | 53.01 |
| 4.24 | 15.092 | 0.408 | 0.55 | 3.3 | 0.0 | 36.99 | 2.703 | 0.0 | 14.092 | 2.862 | 49.74 |
| 4.25 | 15.805 | 0.408 | 0.58 | 3.3 | 0.0 | 38.738 | 2.581 | 0.0 | 14.805 | 2.726 | 47.96 |
| 4.26 | 16.621 | 0.398 | 0.67 | 3.3 | 0.0 | 41.761 | 2.395 | 0.0 | 15.621 | 2.522 | 45.7 |
| 4.27 | 17.539 | 0.398 | 0.70 | 3.3 | 0.0 | 44.068 | 2.269 | 0.0 | 16.539 | 2.384 | 43.75 |
| 4.28 | 17.845 | 0.408 | 0.73 | 3.3 | 0.0 | 43.738 | 2.286 | 0.0 | 16.845 | 2.4 | 43.49 |
| 4.29 | 18.355 | 0.408 | 0.77 | 3.3 | 0.0 | 44.988 | 2.223 | 0.0 | 17.355 | 2.33 | 42.49 |
| 4.30 | 18.864 | 0.387 | 0.76 | 3.3 | 0.0 | 48.744 | 2.052 | 0.0 | 17.864 | 2.148 | 40.83 |
| 4.31 | 19.578 | 0.377 | 0.76 | 3.3 | 0.0 | 51.931 | 1.926 | 0.0 | 18.578 | 2.013 | 39.25 |
| 4.32 | 19.476 | 0.398 | 0.77 | 3.3 | 0.0 | 48.935 | 2.044 | 0.0 | 18.476 | 2.137 | 40.13 |
| 4.33 | 19.68 | 0.418 | 0.77 | 3.3 | 0.0 | 47.081 | 2.124 | 0.0 | 18.68 | 2.221 | 40.43 |
| 4.34 | 19.782 | 0.428 | 0.77 | 3.3 | 0.0 | 46.22 | 2.164 | 0.0 | 18.782 | 2.262 | 40.58 |
| 4.35 | 20.496 | 0.479 | 0.78 | 3.3 | 0.0 | 42.789 | 2.337 | 0.0 | 19.496 | 2.439 | 40.91 |
| 4.36 | 20.598 | 0.52 | 0.79 | 3.3 | 0.0 | 39.612 | 2.525 | 0.0 | 19.598 | 2.635 | 41.89 |
| 4.37 | 20.598 | 0.54 | 0.79 | 3.3 | 0.0 | 38.144 | 2.622 | 0.0 | 19.598 | 2.736 | 42.43 |
| 4.38 | 20.496 | 0.581 | 0.79 | 3.3 | 0.0 | 35.277 | 2.835 | 0.0 | 19.496 | 2.96 | 43.68 |
| 4.39 | 20.7 | 0.612 | 0.80 | 3.3 | 0.0 | 33.824 | 2.957 | 0.0 | 19.7 | 3.086 | 44.1 |
| 4.40 | 21.006 | 0.632 | 0.80 | 3.3 | 0.0 | 33.237 | 3.009 | 0.0 | 20.006 | 3.139 | 44.06 |
| 4.41 | 21.312 | 0.663 | 0.81 | 3.4 | 0.0 | 32.145 | 3.111 | 0.0 | 20.312 | 3.244 | 44.27 |
| 4.42 | 21.72 | 0.693 | 0.82 | 3.4 | 0.0 | 31.342 | 3.191 | 0.0 | 20.72 | 3.324 | 44.27 |
| 4.43 | 22.127 | 0.734 | 0.82 | 3.3 | 0.0 | 30.146 | 3.317 | 0.0 | 21.127 | 3.454 | 44.49 |
| 4.44 | 22.841 | 0.775 | 0.83 | 3.3 | 0.0 | 29.472 | 3.393 | 0.0 | 21.841 | 3.529 | 44.2 |
| 4.45 | 23.759 | 0.775 | 0.83 | 3.3 | 0.0 | 30.657 | 3.262 | 0.0 | 22.759 | 3.387 | 42.8 |
| 4.46 | 24.371 | 0.795 | 0.83 | 3.3 | 0.0 | 30.655 | 3.262 | 0.0 | 23.371 | 3.384 | 42.3 |
| 4.47 | 26.002 | 0.785 | 0.84 | 3.4 | 0.0 | 33.124 | 3.019 | 0.0 | 25.002 | 3.125 | 39.9 |
| 4.48 | 26.818 | 0.785 | 0.84 | 3.4 | 0.0 | 34.163 | 2.927 | 0.0 | 25.818 | 3.027 | 38.88 |
| 4.49 | 27.226 | 0.795 | 0.84 | 3.3 | 0.0 | 34.247 | 2.92 | 0.0 | 26.226 | 3.018 | 38.57 |
| 4.50 | 27.328 | 0.826 | 0.84 | 3.3 | 0.0 | 33.085 | 3.023 | 0.0 | 26.328 | 3.124 | 39 |
| 4.51 | 27.226 | 0.867 | 0.85 | 3.3 | 0.0 | 31.403 | 3.184 | 0.0 | 26.226 | 3.292 | 39.83 |
| 4.52 | 27.022 | 0.887 | 0.85 | 3.3 | 0.0 | 30.464 | 3.283 | 0.0 | 26.022 | 3.395 | 40.42 |
| 4.53 | 26.716 | 0.908 | 0.85 | 3.4 | 0.0 | 29.423 | 3.399 | 0.0 | 25.716 | 3.517 | 41.16 |
| 4.54 | 26.41 | 0.948 | 0.85 | 3.3 | 0.0 | 27.859 | 3.59 | 0.0 | 25.41 | 3.716 | 42.22 |
| 4.55 | 26.308 | 0.959 | 0.85 | 3.3 | 0.0 | 27.433 | 3.645 | 0.0 | 25.308 | 3.774 | 42.54 |
| 4.56 | 27.124 | 0.959 | 0.85 | 3.4 | 0.0 | 28.284 | 3.536 | 0.0 | 26.124 | 3.657 | 41.48 |
| 4.57 | 27.43 | 0.989 | 0.85 | 3.4 | 0.0 | 27.735 | 3.606 | 0.0 | 26.43 | 3.728 | 41.58 |
| 4.58 | 27.226 | 1.06 | 0.85 | 3.3 | 0.0 | 25.685 | 3.893 | 0.0 | 26.226 | 4.027 | 42.92 |
| 4.59 | 27.532 | 1.091 | 0.85 | 3.3 | 0.0 | 25.236 | 3.963 | 0.0 | 26.532 | 4.098 | 42.99 |
| 4.60 | 27.532 | 1.132 | 0.85 | 3.3 | 0.0 | 24.322 | 4.112 | 0.0 | 26.532 | 4.252 | 43.59 |
| 4.61 | 27.226 | 1.193 | 0.86 | 3.3 | 0.0 | 22.821 | 4.382 | 0.0 | 26.226 | 4.534 | 44.85 |
| 4.62 | 27.532 | 1.213 | 0.85 | 3.3 | 0.0 | 22.697 | 4.406 | 0.0 | 26.532 | 4.557 | 44.73 |
| 4.63 | 27.43 | 1.244 | 0.85 | 3.3 | 0.0 | 22.05 | 4.535 | 0.0 | 26.43 | 4.692 | 45.29 |
| 4.64 | 26.818 | 1.285 | 0.86 | 3.3 | 0.0 | 20.87 | 4.792 | 0.0 | 25.818 | 4.961 | 46.67 |
| 4.65 | 27.124 | 1.285 | 0.86 | 3.3 | 0.0 | 21.108 | 4.738 | 0.0 | 26.124 | 4.904 | 46.25 |
| 4.66 | 27.94 | 1.285 | 0.86 | 3.3 | 0.0 | 21.743 | 4.599 | 0.0 | 26.94 | 4.756 | 45.17 |
| 4.67 | 29.061 | 1.275 | 0.86 | 3.4 | 0.0 | 22.793 | 4.387 | 0.0 | 28.061 | 4.531 | 43.63 |
| 4.68 | 29.367 | 1.295 | 0.86 | 3.4 | 0.0 | 22.677 | 4.41 | 0.0 | 28.367 | 4.553 | 43.52 |
| 4.69 | 28.858 | 1.326 | 0.86 | 3.4 | 0.0 | 21.763 | 4.595 | 0.0 | 27.858 | 4.748 | 44.53 |
| 4.70 | 28.45 | 1.336 | 0.86 | 3.4 | 0.0 | 21.295 | 4.696 | 0.0 | 27.45 | 4.855 | 45.17 |
| 4.71 | 27.94 | 1.346 | 0.86 | 3.4 | 0.0 | 20.758 | 4.817 | 0.0 | 26.94 | 4.984 | 45.96 |
| 4.72 | 27.94 | 1.336 | 0.86 | 3.4 | 0.0 | 20.913 | 4.782 | 0.0 | 26.94 | 4.947 | 45.84 |
| 4.73 | 28.042 | 1.346 | 0.86 | 3.4 | 0.0 | 20.834 | 4.8 | 0.0 | 27.042 | 4.966 | 45.83 |
| 4.74 | 28.042 | 1.346 | 0.86 | 3.4 | 0.0 | 20.834 | 4.8 | 0.0 | 27.042 | 4.966 | 45.83 |
| 4.75 | 28.042 | 1.346 | 0.86 | 3.4 | 0.0 | 20.834 | 4.8 | 0.0 | 27.042 | 4.966 | 45.83 |

Prova n. 5

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 4.76 | 27.022 | 1.458 | 0.84 | 3.3 | 0.0 | 18.534 | 5.396 | 0.0 | 26.022 | 5.59 | 48.62 |
| 4.77 | 26.92 | 1.468 | 0.84 | 3.3 | 0.0 | 18.338 | 5.453 | 0.0 | 25.92 | 5.651 | 48.89 |
| 4.78 | 27.022 | 1.458 | 0.85 | 3.3 | 0.0 | 18.534 | 5.396 | 0.0 | 26.022 | 5.591 | 48.62 |
| 4.79 | 27.328 | 1.448 | 0.85 | 3.3 | 0.0 | 18.873 | 5.299 | 0.0 | 26.328 | 5.489 | 48.07 |
| 4.80 | 27.124 | 1.428 | 0.85 | 3.3 | 0.0 | 18.994 | 5.265 | 0.0 | 26.124 | 5.456 | 48.11 |
| 4.81 | 26.512 | 1.438 | 0.85 | 3.3 | 0.0 | 18.437 | 5.424 | 0.0 | 25.512 | 5.626 | 49.11 |
| 4.82 | 26.206 | 1.397 | 0.85 | 3.3 | 0.0 | 18.759 | 5.331 | 0.0 | 25.206 | 5.532 | 49.03 |
| 4.83 | 25.9 | 1.377 | 0.85 | 3.3 | 0.0 | 18.809 | 5.317 | 0.0 | 24.9 | 5.52 | 49.23 |
| 4.84 | 26.002 | 1.377 | 0.84 | 3.3 | 0.0 | 18.883 | 5.296 | 0.0 | 25.002 | 5.498 | 49.08 |
| 4.85 | 26.308 | 1.366 | 0.84 | 3.3 | 0.0 | 19.259 | 5.192 | 0.0 | 25.308 | 5.389 | 48.49 |
| 4.86 | 26.104 | 1.387 | 0.84 | 3.3 | 0.0 | 18.82 | 5.313 | 0.0 | 25.104 | 5.517 | 49.06 |
| 4.87 | 25.594 | 1.387 | 0.85 | 3.3 | 0.0 | 18.453 | 5.419 | 0.0 | 24.594 | 5.631 | 49.82 |
| 4.88 | 25.391 | 1.397 | 0.85 | 3.3 | 0.0 | 18.175 | 5.502 | 0.0 | 24.391 | 5.719 | 50.26 |
| 4.89 | 25.391 | 1.377 | 0.85 | 3.3 | 0.0 | 18.439 | 5.423 | 0.0 | 24.391 | 5.638 | 50 |
| 4.90 | 25.391 | 1.336 | 0.85 | 3.3 | 0.0 | 19.005 | 5.262 | 0.0 | 24.391 | 5.471 | 49.46 |
| 4.91 | 25.187 | 1.326 | 0.85 | 3.4 | 0.0 | 18.995 | 5.265 | 0.0 | 24.187 | 5.476 | 49.63 |
| 4.92 | 24.881 | 1.315 | 0.85 | 3.4 | 0.0 | 18.921 | 5.285 | 0.0 | 23.881 | 5.5 | 49.96 |
| 4.93 | 24.677 | 1.285 | 0.85 | 3.4 | 0.0 | 19.204 | 5.207 | 0.0 | 23.677 | 5.422 | 49.87 |
| 4.94 | 24.473 | 1.295 | 0.85 | 3.4 | 0.0 | 18.898 | 5.292 | 0.0 | 23.473 | 5.512 | 50.33 |
| 4.95 | 23.861 | 1.295 | 0.84 | 3.4 | 0.0 | 18.425 | 5.427 | 0.0 | 22.861 | 5.66 | 51.33 |
| 4.96 | 23.555 | 1.305 | 0.84 | 3.4 | 0.0 | 18.05 | 5.54 | 0.0 | 22.555 | 5.781 | 51.99 |
| 4.97 | 23.453 | 1.305 | 0.84 | 3.4 | 0.0 | 17.972 | 5.564 | 0.0 | 22.453 | 5.808 | 52.16 |
| 4.98 | 23.555 | 1.326 | 0.84 | 3.4 | 0.0 | 17.764 | 5.629 | 0.0 | 22.555 | 5.875 | 52.29 |
| 4.99 | 23.249 | 1.336 | 0.84 | 3.3 | 0.0 | 17.402 | 5.746 | 0.0 | 22.249 | 6.001 | 52.96 |
| 5.00 | 22.535 | 1.326 | 0.84 | 3.3 | 0.0 | 16.995 | 5.884 | 0.0 | 21.535 | 6.154 | 54.09 |
| 5.01 | 22.127 | 1.315 | 0.84 | 3.3 | 0.0 | 16.827 | 5.943 | 0.0 | 21.127 | 6.222 | 54.69 |
| 5.02 | 22.637 | 1.264 | 0.84 | 3.4 | 0.0 | 17.909 | 5.584 | 0.0 | 21.637 | 5.84 | 53 |
| 5.03 | 22.841 | 1.264 | 0.84 | 3.3 | 0.0 | 18.07 | 5.534 | 0.0 | 21.841 | 5.786 | 52.64 |
| 5.04 | 22.331 | 1.285 | 0.84 | 3.3 | 0.0 | 17.378 | 5.754 | 0.0 | 21.331 | 6.023 | 53.87 |
| 5.05 | 21.414 | 1.305 | 0.84 | 3.3 | 0.0 | 16.409 | 6.094 | 0.0 | 20.414 | 6.393 | 55.91 |
| 5.06 | 20.496 | 1.326 | 0.83 | 3.4 | 0.0 | 15.457 | 6.47 | 0.0 | 19.496 | 6.802 | 58.1 |
| 5.07 | 20.496 | 1.346 | 0.83 | 3.4 | 0.0 | 15.227 | 6.567 | 0.0 | 19.496 | 6.905 | 58.4 |
| 5.08 | 21.006 | 1.346 | 0.84 | 3.4 | 0.0 | 15.606 | 6.408 | 0.0 | 20.006 | 6.73 | 57.35 |
| 5.09 | 21.516 | 1.336 | 0.84 | 3.4 | 0.0 | 16.105 | 6.209 | 0.0 | 20.516 | 6.514 | 56.18 |
| 5.10 | 21.516 | 1.285 | 0.85 | 3.4 | 0.0 | 16.744 | 5.972 | 0.0 | 20.516 | 6.266 | 55.43 |
| 5.11 | 21.312 | 1.244 | 0.86 | 3.4 | 0.0 | 17.132 | 5.837 | 0.0 | 20.312 | 6.128 | 55.2 |
| 5.12 | 21.618 | 1.173 | 0.86 | 3.4 | 0.0 | 18.43 | 5.426 | 0.0 | 20.618 | 5.693 | 53.5 |
| 5.13 | 22.026 | 1.132 | 0.86 | 3.4 | 0.0 | 19.458 | 5.139 | 0.0 | 21.026 | 5.388 | 52.09 |
| 5.14 | 21.618 | 1.111 | 0.86 | 3.4 | 0.0 | 19.458 | 5.139 | 0.0 | 20.618 | 5.393 | 52.5 |
| 5.15 | 21.312 | 1.122 | 0.86 | 3.4 | 0.0 | 18.995 | 5.265 | 0.0 | 20.312 | 5.529 | 53.27 |
| 5.16 | 15.805 | 1.132 | 0.85 | 3.4 | 0.0 | 13.962 | 7.162 | 0.0 | 14.805 | 7.657 | 66.71 |
| 5.17 | 21.21 | 1.173 | 0.85 | 3.4 | 0.0 | 18.082 | 5.53 | 0.0 | 20.21 | 5.811 | 54.3 |
| 5.18 | 21.006 | 1.132 | 0.85 | 3.4 | 0.0 | 18.557 | 5.389 | 0.0 | 20.006 | 5.666 | 54.03 |
| 5.19 | 21.006 | 1.101 | 0.85 | 3.4 | 0.0 | 19.079 | 5.241 | 0.0 | 20.006 | 5.511 | 53.51 |
| 5.20 | 21.006 | 1.081 | 0.86 | 3.4 | 0.0 | 19.432 | 5.146 | 0.0 | 20.006 | 5.411 | 53.18 |
| 5.21 | 21.312 | 1.04 | 0.85 | 3.4 | 0.0 | 20.492 | 4.88 | 0.0 | 20.312 | 5.128 | 51.89 |
| 5.22 | 21.516 | 1.02 | 0.85 | 3.4 | 0.0 | 21.094 | 4.741 | 0.0 | 20.516 | 4.98 | 51.16 |
| 5.23 | 21.006 | 1.03 | 0.85 | 3.4 | 0.0 | 20.394 | 4.903 | 0.0 | 20.006 | 5.158 | 52.3 |
| 5.24 | 20.598 | 1.101 | 0.85 | 3.4 | 0.0 | 18.708 | 5.345 | 0.0 | 19.598 | 5.629 | 54.33 |
| 5.25 | 20.19 | 1.122 | 0.85 | 3.4 | 0.0 | 17.995 | 5.557 | 0.0 | 19.19 | 5.859 | 55.53 |
| 5.26 | 20.19 | 1.122 | 0.85 | 3.4 | 0.0 | 17.995 | 5.557 | 0.0 | 19.19 | 5.86 | 55.53 |
| 5.27 | 19.476 | 1.142 | 0.85 | 3.4 | 0.0 | 17.054 | 5.864 | 0.0 | 18.476 | 6.196 | 57.4 |
| 5.28 | 19.578 | 1.122 | 0.85 | 3.4 | 0.0 | 17.449 | 5.731 | 0.0 | 18.578 | 6.054 | 56.84 |
| 5.29 | 19.782 | 1.101 | 0.85 | 3.4 | 0.0 | 17.967 | 5.566 | 0.0 | 18.782 | 5.877 | 56.04 |
| 5.30 | 19.782 | 1.091 | 0.85 | 3.4 | 0.0 | 18.132 | 5.515 | 0.0 | 18.782 | 5.824 | 55.86 |
| 5.31 | 20.496 | 1.071 | 0.85 | 3.5 | 0.0 | 19.137 | 5.225 | 0.0 | 19.496 | 5.508 | 54.04 |
| 5.32 | 20.394 | 1.04 | 0.85 | 3.5 | 0.0 | 19.61 | 5.1 | 0.0 | 19.394 | 5.377 | 53.7 |
| 5.33 | 20.496 | 1.04 | 0.85 | 3.4 | 0.0 | 19.708 | 5.074 | 0.0 | 19.496 | 5.35 | 53.5 |
| 5.34 | 20.598 | 1.04 | 0.85 | 3.5 | 0.0 | 19.806 | 5.049 | 0.0 | 19.598 | 5.322 | 53.29 |
| 5.35 | 20.598 | 1.04 | 0.85 | 3.5 | 0.0 | 19.806 | 5.049 | 0.0 | 19.598 | 5.323 | 53.3 |
| 5.36 | 20.496 | 1.02 | 0.85 | 3.5 | 0.0 | 20.094 | 4.977 | 0.0 | 19.496 | 5.248 | 53.15 |
| 5.37 | 20.598 | 0.989 | 0.85 | 3.5 | 0.0 | 20.827 | 4.801 | 0.0 | 19.598 | 5.063 | 52.39 |
| 5.38 | 20.496 | 0.969 | 0.85 | 3.5 | 0.0 | 21.152 | 4.728 | 0.0 | 19.496 | 4.987 | 52.22 |
| 5.39 | 20.496 | 0.959 | 0.85 | 3.5 | 0.0 | 21.372 | 4.679 | 0.0 | 19.496 | 4.936 | 52.04 |
| 5.40 | 20.496 | 0.959 | 0.85 | 3.5 | 0.0 | 21.372 | 4.679 | 0.0 | 19.496 | 4.937 | 52.04 |
| 5.41 | 20.496 | 0.948 | 0.85 | 3.5 | 0.0 | 21.62 | 4.625 | 0.0 | 19.496 | 4.88 | 51.83 |

Prova n. 5

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 5.42 | 19.68 | 0.979 | 0.85 | 3.5 | 0.0 | 20.102 | 4.975 | 0.0 | 18.68 | 5.262 | 54.08 |
| 5.43 | 19.986 | 0.989 | 0.85 | 3.5 | 0.0 | 20.208 | 4.948 | 0.0 | 18.986 | 5.23 | 53.63 |
| 5.44 | 19.986 | 0.999 | 0.85 | 3.5 | 0.0 | 20.006 | 4.998 | 0.0 | 18.986 | 5.283 | 53.81 |
| 5.45 | 11.013 | 0.173 | 0.82 | 3.5 | 0.0 | 63.659 | 1.571 | 0.0 | 10.013 | 1.742 | 50.1 |
| 5.46 | 19.578 | 1.05 | 0.84 | 3.5 | 0.0 | 18.646 | 5.363 | 0.0 | 18.578 | 5.677 | 55.61 |
| 5.47 | 19.578 | 1.02 | 0.84 | 3.5 | 0.0 | 19.194 | 5.21 | 0.0 | 18.578 | 5.515 | 55.06 |
| 5.48 | 19.782 | 0.999 | 0.85 | 3.5 | 0.0 | 19.802 | 5.05 | 0.0 | 18.782 | 5.343 | 54.25 |
| 5.49 | 19.68 | 0.989 | 0.85 | 3.5 | 0.0 | 19.899 | 5.025 | 0.0 | 18.68 | 5.319 | 54.28 |
| 5.50 | 19.884 | 0.989 | 0.85 | 3.5 | 0.0 | 20.105 | 4.974 | 0.0 | 18.884 | 5.262 | 53.85 |
| 5.51 | 20.088 | 0.969 | 0.85 | 3.5 | 0.0 | 20.731 | 4.824 | 0.0 | 19.088 | 5.101 | 53.06 |
| 5.52 | 19.782 | 0.999 | 0.85 | 3.5 | 0.0 | 19.802 | 5.05 | 0.0 | 18.782 | 5.346 | 54.26 |
| 5.53 | 19.782 | 0.999 | 0.85 | 3.5 | 0.0 | 19.802 | 5.05 | 0.0 | 18.782 | 5.346 | 54.26 |
| 5.54 | 19.986 | 0.999 | 0.86 | 3.5 | 0.0 | 20.006 | 4.998 | 0.0 | 18.986 | 5.289 | 53.83 |
| 5.55 | 20.394 | 0.969 | 0.86 | 3.5 | 0.0 | 21.046 | 4.751 | 0.0 | 19.394 | 5.022 | 52.45 |
| 5.56 | 20.19 | 0.959 | 0.86 | 3.5 | 0.0 | 21.053 | 4.75 | 0.0 | 19.19 | 5.024 | 52.68 |
| 5.57 | 19.578 | 0.969 | 0.86 | 3.5 | 0.0 | 20.204 | 4.949 | 0.0 | 18.578 | 5.245 | 54.13 |
| 5.58 | 19.476 | 0.948 | 0.86 | 3.5 | 0.0 | 20.544 | 4.868 | 0.0 | 18.476 | 5.16 | 53.95 |
| 5.59 | 19.578 | 0.918 | 0.86 | 3.5 | 0.0 | 21.327 | 4.689 | 0.0 | 18.578 | 4.97 | 53.15 |
| 5.60 | 19.68 | 0.908 | 0.87 | 3.5 | 0.0 | 21.674 | 4.614 | 0.0 | 18.68 | 4.889 | 52.74 |
| 5.61 | 19.986 | 0.897 | 0.87 | 3.5 | 0.0 | 22.281 | 4.488 | 0.0 | 18.986 | 4.752 | 51.9 |
| 5.62 | 20.598 | 0.877 | 0.87 | 3.5 | 0.0 | 23.487 | 4.258 | 0.0 | 19.598 | 4.501 | 50.31 |
| 5.63 | 21.006 | 0.867 | 0.87 | 3.5 | 0.0 | 24.228 | 4.127 | 0.0 | 20.006 | 4.359 | 49.34 |
| 5.64 | 21.006 | 0.867 | 0.87 | 3.5 | 0.0 | 24.228 | 4.127 | 0.0 | 20.006 | 4.359 | 49.35 |
| 5.65 | 21.006 | 0.867 | 0.87 | 3.5 | 0.0 | 24.228 | 4.127 | 0.0 | 20.006 | 4.36 | 49.35 |
| 5.66 | 21.108 | 0.867 | 0.87 | 3.5 | 0.0 | 24.346 | 4.107 | 0.0 | 20.108 | 4.338 | 49.16 |
| 5.67 | 21.21 | 0.867 | 0.87 | 3.5 | 0.0 | 24.464 | 4.088 | 0.0 | 20.21 | 4.316 | 48.98 |
| 5.68 | 21.72 | 0.836 | 0.87 | 3.5 | 0.0 | 25.981 | 3.849 | 0.0 | 20.72 | 4.059 | 47.46 |
| 5.69 | 22.026 | 0.826 | 0.87 | 3.5 | 0.0 | 26.666 | 3.75 | 0.0 | 21.026 | 3.952 | 46.73 |
| 5.70 | 22.331 | 0.826 | 0.88 | 3.5 | 0.0 | 27.035 | 3.699 | 0.0 | 21.331 | 3.896 | 46.22 |
| 5.71 | 22.943 | 0.806 | 0.88 | 3.5 | 0.0 | 28.465 | 3.513 | 0.0 | 21.943 | 3.695 | 44.84 |
| 5.72 | 22.841 | 0.826 | 0.88 | 3.5 | 0.0 | 27.653 | 3.616 | 0.0 | 21.841 | 3.805 | 45.39 |
| 5.73 | 22.841 | 0.836 | 0.88 | 3.5 | 0.0 | 27.322 | 3.66 | 0.0 | 21.841 | 3.852 | 45.59 |
| 5.74 | 22.943 | 0.836 | 0.88 | 3.5 | 0.0 | 27.444 | 3.644 | 0.0 | 21.943 | 3.834 | 45.42 |
| 5.75 | 22.331 | 0.857 | 0.88 | 3.5 | 0.0 | 26.057 | 3.838 | 0.0 | 21.331 | 4.044 | 46.83 |
| 5.76 | 21.312 | 0.887 | 0.88 | 3.5 | 0.0 | 24.027 | 4.162 | 0.0 | 20.312 | 4.397 | 49.19 |
| 5.77 | 20.598 | 0.897 | 0.88 | 3.5 | 0.0 | 22.963 | 4.355 | 0.0 | 19.598 | 4.611 | 50.73 |
| 5.78 | 20.394 | 0.897 | 0.87 | 3.5 | 0.0 | 22.736 | 4.398 | 0.0 | 19.394 | 4.66 | 51.12 |
| 5.79 | 20.394 | 0.897 | 0.87 | 3.5 | 0.0 | 22.736 | 4.398 | 0.0 | 19.394 | 4.661 | 51.13 |
| 5.80 | 20.394 | 0.897 | 0.87 | 3.5 | 0.0 | 22.736 | 4.398 | 0.0 | 19.394 | 4.661 | 51.13 |
| 5.81 | 18.457 | 0.969 | 1.04 | 3.5 | 0.0 | 19.047 | 5.25 | 0.0 | 17.457 | 5.599 | 56.67 |
| 5.82 | 18.049 | 0.948 | 1.05 | 3.5 | 0.0 | 19.039 | 5.252 | 0.0 | 17.049 | 5.611 | 57.22 |
| 5.83 | 17.845 | 0.928 | 1.07 | 3.5 | 0.0 | 19.23 | 5.2 | 0.0 | 16.845 | 5.56 | 57.31 |
| 5.84 | 17.641 | 0.897 | 1.14 | 3.5 | 0.0 | 19.667 | 5.085 | 0.0 | 16.641 | 5.442 | 57.17 |
| 5.85 | 17.947 | 0.836 | 1.31 | 3.5 | 0.0 | 21.468 | 4.658 | 0.0 | 16.947 | 4.98 | 55.12 |
| 5.86 | 18.151 | 0.816 | 1.32 | 3.5 | 0.0 | 22.244 | 4.496 | 0.0 | 17.151 | 4.803 | 54.21 |
| 5.87 | 18.864 | 0.785 | 1.32 | 3.5 | 0.0 | 24.031 | 4.161 | 0.0 | 17.864 | 4.435 | 51.94 |
| 5.88 | 19.374 | 0.775 | 1.32 | 3.5 | 0.0 | 24.999 | 4.0 | 0.0 | 18.374 | 4.256 | 50.65 |
| 5.89 | 19.578 | 0.755 | 1.33 | 3.6 | 0.0 | 25.931 | 3.856 | 0.0 | 18.578 | 4.101 | 49.8 |
| 5.90 | 19.578 | 0.734 | 1.34 | 3.6 | 0.0 | 26.673 | 3.749 | 0.0 | 18.578 | 3.987 | 49.32 |
| 5.91 | 19.782 | 0.714 | 1.34 | 3.6 | 0.0 | 27.706 | 3.609 | 0.0 | 18.782 | 3.836 | 48.47 |
| 5.92 | 20.19 | 0.693 | 1.34 | 3.6 | 0.0 | 29.134 | 3.432 | 0.0 | 19.19 | 3.644 | 47.2 |
| 5.93 | 20.394 | 0.673 | 1.34 | 3.6 | 0.0 | 30.303 | 3.3 | 0.0 | 19.394 | 3.502 | 46.36 |
| 5.94 | 20.394 | 0.673 | 1.34 | 3.6 | 0.0 | 30.303 | 3.3 | 0.0 | 19.394 | 3.502 | 46.36 |
| 5.95 | 20.7 | 0.663 | 1.34 | 3.6 | 0.0 | 31.222 | 3.203 | 0.0 | 19.7 | 3.396 | 45.57 |
| 5.96 | 20.904 | 0.663 | 1.34 | 3.6 | 0.0 | 31.529 | 3.172 | 0.0 | 19.904 | 3.362 | 45.21 |
| 5.97 | 20.802 | 0.673 | 1.34 | 3.6 | 0.0 | 30.909 | 3.235 | 0.0 | 19.802 | 3.43 | 45.63 |
| 5.98 | 21.108 | 0.683 | 1.35 | 3.6 | 0.0 | 30.905 | 3.236 | 0.0 | 20.108 | 3.428 | 45.32 |
| 5.99 | 21.618 | 0.693 | 1.36 | 3.6 | 0.0 | 31.195 | 3.206 | 0.0 | 20.618 | 3.392 | 44.68 |
| 6.00 | 21.924 | 0.714 | 1.38 | 3.6 | 0.0 | 30.706 | 3.257 | 0.0 | 20.924 | 3.443 | 44.63 |
| 6.01 | 22.433 | 0.724 | 1.40 | 3.6 | 0.0 | 30.985 | 3.227 | 0.0 | 21.433 | 3.408 | 44.01 |
| 6.02 | 22.841 | 0.724 | 1.41 | 3.6 | 0.0 | 31.548 | 3.17 | 0.0 | 21.841 | 3.344 | 43.37 |
| 6.03 | 23.147 | 0.734 | 1.42 | 3.6 | 0.0 | 31.535 | 3.171 | 0.0 | 22.147 | 3.344 | 43.11 |
| 6.04 | 23.555 | 0.724 | 1.43 | 3.6 | 0.0 | 32.535 | 3.074 | 0.0 | 22.555 | 3.238 | 42.29 |
| 6.05 | 23.963 | 0.724 | 1.43 | 3.7 | 0.0 | 33.098 | 3.021 | 0.0 | 22.963 | 3.18 | 41.69 |
| 6.06 | 23.555 | 0.734 | 1.44 | 3.7 | 0.0 | 32.091 | 3.116 | 0.0 | 22.555 | 3.284 | 42.49 |
| 6.07 | 23.249 | 0.744 | 1.45 | 3.7 | 0.0 | 31.249 | 3.2 | 0.0 | 22.249 | 3.375 | 43.16 |

Prova n. 5

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 6.08 | 23.045 | 0.755 | 1.45 | 3.7 | 0.0 | 30.523 | 3.276 | 0.0 | 22.045 | 3.457 | 43.71 |
| 6.09 | 22.637 | 0.765 | 1.45 | 3.7 | 0.0 | 29.591 | 3.379 | 0.0 | 21.637 | 3.57 | 44.56 |
| 6.10 | 22.943 | 0.755 | 1.46 | 3.7 | 0.0 | 30.388 | 3.291 | 0.0 | 21.943 | 3.474 | 43.87 |
| 6.11 | 23.147 | 0.755 | 1.46 | 3.7 | 0.0 | 30.658 | 3.262 | 0.0 | 22.147 | 3.442 | 43.55 |
| 6.12 | 23.249 | 0.744 | 1.46 | 3.7 | 0.0 | 31.249 | 3.2 | 0.0 | 22.249 | 3.376 | 43.17 |
| 6.13 | 23.249 | 0.744 | 1.46 | 3.7 | 0.0 | 31.249 | 3.2 | 0.0 | 22.249 | 3.377 | 43.17 |
| 6.14 | 19.476 | 0.561 | 1.45 | 3.7 | 0.0 | 34.717 | 2.88 | 0.0 | 18.476 | 3.072 | 45.28 |
| 6.15 | 22.535 | 0.744 | 1.46 | 3.7 | 0.0 | 30.289 | 3.302 | 0.0 | 21.535 | 3.49 | 44.29 |
| 6.16 | 23.657 | 0.765 | 1.46 | 3.7 | 0.0 | 30.924 | 3.234 | 0.0 | 22.657 | 3.41 | 42.98 |
| 6.17 | 23.249 | 0.765 | 1.46 | 3.7 | 0.0 | 30.391 | 3.29 | 0.0 | 22.249 | 3.473 | 43.61 |
| 6.18 | 22.841 | 0.765 | 1.46 | 3.7 | 0.0 | 29.858 | 3.349 | 0.0 | 21.841 | 3.539 | 44.24 |
| 6.19 | 21.618 | 0.775 | 1.46 | 3.7 | 0.0 | 27.894 | 3.585 | 0.0 | 20.618 | 3.801 | 46.48 |
| 6.20 | 21.516 | 0.765 | 1.46 | 3.7 | 0.0 | 28.125 | 3.555 | 0.0 | 20.516 | 3.771 | 46.45 |
| 6.21 | 21.414 | 0.755 | 1.45 | 3.7 | 0.0 | 28.363 | 3.526 | 0.0 | 20.414 | 3.741 | 46.41 |
| 6.22 | 21.108 | 0.755 | 1.45 | 3.8 | 0.0 | 27.958 | 3.577 | 0.0 | 20.108 | 3.799 | 46.95 |
| 6.23 | 20.7 | 0.775 | 1.46 | 3.8 | 0.0 | 26.71 | 3.744 | 0.0 | 19.7 | 3.981 | 48.13 |
| 6.24 | 20.292 | 0.785 | 1.46 | 3.8 | 0.0 | 25.85 | 3.869 | 0.0 | 19.292 | 4.12 | 49.11 |
| 6.25 | 20.088 | 0.785 | 1.46 | 3.8 | 0.0 | 25.59 | 3.908 | 0.0 | 19.088 | 4.165 | 49.51 |
| 6.26 | 19.782 | 0.775 | 1.47 | 3.8 | 0.0 | 25.525 | 3.918 | 0.0 | 18.782 | 4.18 | 49.9 |
| 6.27 | 19.68 | 0.765 | 1.50 | 3.8 | 0.0 | 25.725 | 3.887 | 0.0 | 18.68 | 4.149 | 49.88 |
| 6.28 | 19.17 | 0.765 | 1.51 | 3.8 | 0.0 | 25.059 | 3.991 | 0.0 | 18.17 | 4.268 | 50.93 |
| 6.29 | 18.762 | 0.755 | 1.51 | 3.8 | 0.0 | 24.85 | 4.024 | 0.0 | 17.762 | 4.31 | 51.57 |
| 6.30 | 18.253 | 0.744 | 1.53 | 3.8 | 0.0 | 24.534 | 4.076 | 0.0 | 17.253 | 4.375 | 52.43 |
| 6.31 | 18.049 | 0.734 | 1.53 | 3.8 | 0.0 | 24.59 | 4.067 | 0.0 | 17.049 | 4.369 | 52.66 |
| 6.32 | 18.049 | 0.714 | 1.53 | 3.8 | 0.0 | 25.279 | 3.956 | 0.0 | 17.049 | 4.251 | 52.18 |
| 6.33 | 17.539 | 0.714 | 1.54 | 3.8 | 0.0 | 24.564 | 4.071 | 0.0 | 16.539 | 4.384 | 53.36 |
| 6.34 | 16.927 | 0.673 | 1.54 | 3.8 | 0.0 | 25.152 | 3.976 | 0.0 | 15.927 | 4.295 | 53.8 |
| 6.35 | 16.927 | 0.663 | 1.54 | 3.8 | 0.0 | 25.531 | 3.917 | 0.0 | 15.927 | 4.231 | 53.54 |
| 6.36 | 16.825 | 0.642 | 1.54 | 3.8 | 0.0 | 26.207 | 3.816 | 0.0 | 15.825 | 4.125 | 53.23 |
| 6.37 | 16.417 | 0.632 | 1.55 | 3.8 | 0.0 | 25.976 | 3.85 | 0.0 | 15.417 | 4.17 | 53.99 |
| 6.38 | 16.315 | 0.612 | 1.56 | 3.8 | 0.0 | 26.658 | 3.751 | 0.0 | 15.315 | 4.066 | 53.69 |
| 6.39 | 16.111 | 0.591 | 1.56 | 3.8 | 0.0 | 27.261 | 3.668 | 0.0 | 15.111 | 3.981 | 53.62 |
| 6.40 | 16.519 | 0.581 | 1.56 | 3.8 | 0.0 | 28.432 | 3.517 | 0.0 | 15.519 | 3.81 | 52.29 |
| 6.41 | 16.825 | 0.571 | 1.56 | 3.8 | 0.0 | 29.466 | 3.394 | 0.0 | 15.825 | 3.671 | 51.26 |
| 6.42 | 17.029 | 0.571 | 1.56 | 3.8 | 0.0 | 29.823 | 3.353 | 0.0 | 16.029 | 3.624 | 50.78 |
| 6.43 | 17.131 | 0.571 | 1.57 | 3.8 | 0.0 | 30.002 | 3.333 | 0.0 | 16.131 | 3.601 | 50.54 |
| 6.44 | 16.825 | 0.591 | 1.58 | 3.8 | 0.0 | 28.469 | 3.513 | 0.0 | 15.825 | 3.801 | 51.84 |
| 6.45 | 16.519 | 0.602 | 1.59 | 3.8 | 0.0 | 27.44 | 3.644 | 0.0 | 15.519 | 3.95 | 52.91 |
| 6.46 | 16.417 | 0.591 | 1.60 | 3.8 | 0.0 | 27.778 | 3.6 | 0.0 | 15.417 | 3.904 | 52.85 |
| 6.47 | 16.927 | 0.571 | 1.63 | 3.8 | 0.0 | 29.644 | 3.373 | 0.0 | 15.927 | 3.65 | 51.03 |
| 6.48 | 17.335 | 0.561 | 1.71 | 3.8 | 0.0 | 30.9 | 3.236 | 0.0 | 16.335 | 3.495 | 49.79 |
| 6.49 | 17.437 | 0.551 | 2.35 | 3.8 | 0.0 | 31.646 | 3.16 | 0.0 | 16.437 | 3.411 | 49.27 |
| 6.50 | 17.641 | 0.54 | 2.62 | 3.8 | 0.0 | 32.669 | 3.061 | 0.0 | 16.641 | 3.302 | 48.49 |
| 6.51 | 17.947 | 0.52 | 2.62 | 3.8 | 0.0 | 34.513 | 2.897 | 0.0 | 16.947 | 3.122 | 47.24 |
| 6.52 | 18.253 | 0.5 | 2.61 | 3.8 | 0.0 | 36.506 | 2.739 | 0.0 | 17.253 | 2.948 | 46.01 |
| 6.53 | 18.253 | 0.5 | 2.61 | 3.8 | 0.0 | 36.506 | 2.739 | 0.0 | 17.253 | 2.948 | 46.01 |
| 6.54 | 18.151 | 0.51 | 2.61 | 3.8 | 0.0 | 35.59 | 2.81 | 0.0 | 17.151 | 3.026 | 46.52 |
| 6.55 | 17.845 | 0.52 | 2.60 | 3.8 | 0.0 | 34.317 | 2.914 | 0.0 | 16.845 | 3.142 | 47.47 |
| 6.56 | 17.845 | 0.52 | 2.59 | 3.8 | 0.0 | 34.317 | 2.914 | 0.0 | 16.845 | 3.143 | 47.47 |
| 6.57 | 17.845 | 0.51 | 2.58 | 3.8 | 0.0 | 34.99 | 2.858 | 0.0 | 16.845 | 3.083 | 47.17 |
| 6.58 | 18.151 | 0.52 | 2.59 | 3.8 | 0.0 | 34.906 | 2.865 | 0.0 | 17.151 | 3.086 | 46.83 |
| 6.59 | 18.253 | 0.52 | 2.60 | 3.8 | 0.0 | 35.102 | 2.849 | 0.0 | 17.253 | 3.068 | 46.62 |
| 6.60 | 18.253 | 0.53 | 2.64 | 3.8 | 0.0 | 34.44 | 2.904 | 0.0 | 17.253 | 3.128 | 46.91 |
| 6.61 | 18.049 | 0.54 | 2.66 | 3.8 | 0.0 | 33.424 | 2.992 | 0.0 | 17.049 | 3.226 | 47.63 |
| 6.62 | 17.947 | 0.54 | 2.66 | 3.8 | 0.0 | 33.235 | 3.009 | 0.0 | 16.947 | 3.246 | 47.85 |
| 6.63 | 18.049 | 0.54 | 2.66 | 3.8 | 0.0 | 33.424 | 2.992 | 0.0 | 17.049 | 3.226 | 47.64 |
| 6.64 | 18.253 | 0.571 | 2.66 | 3.8 | 0.0 | 31.967 | 3.128 | 0.0 | 17.253 | 3.371 | 48.09 |
| 6.65 | 18.151 | 0.591 | 2.65 | 3.8 | 0.0 | 30.712 | 3.256 | 0.0 | 17.151 | 3.511 | 48.86 |
| 6.66 | 18.151 | 0.591 | 2.65 | 3.8 | 0.0 | 30.712 | 3.256 | 0.0 | 17.151 | 3.511 | 48.86 |
| 6.67 | 18.049 | 0.602 | 2.65 | 3.8 | 0.0 | 29.982 | 3.335 | 0.0 | 17.049 | 3.599 | 49.38 |
| 6.68 | 17.845 | 0.602 | 2.65 | 3.8 | 0.0 | 29.643 | 3.373 | 0.0 | 16.845 | 3.643 | 49.83 |
| 6.69 | 17.743 | 0.602 | 2.65 | 3.8 | 0.0 | 29.473 | 3.393 | 0.0 | 16.743 | 3.667 | 50.06 |
| 6.70 | 17.947 | 0.591 | 2.65 | 3.8 | 0.0 | 30.367 | 3.293 | 0.0 | 16.947 | 3.556 | 49.31 |
| 6.71 | 18.049 | 0.581 | 2.65 | 3.9 | 0.0 | 31.065 | 3.219 | 0.0 | 17.049 | 3.475 | 48.81 |
| 6.72 | 18.253 | 0.561 | 2.64 | 3.8 | 0.0 | 32.537 | 3.073 | 0.0 | 17.253 | 3.315 | 47.82 |
| 6.73 | 17.845 | 0.561 | 2.64 | 3.9 | 0.0 | 31.809 | 3.144 | 0.0 | 16.845 | 3.397 | 48.7 |

Prova n. 5

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 6.74 | 17.641 | 0.551 | 2.63 | 3.9 | 0.0 | 32.016 | 3.123 | 0.0 | 16.641 | 3.379 | 48.86 |
| 6.75 | 17.641 | 0.551 | 2.61 | 3.9 | 0.0 | 32.016 | 3.123 | 0.0 | 16.641 | 3.379 | 48.86 |
| 6.76 | 17.743 | 0.561 | 2.60 | 3.9 | 0.0 | 31.627 | 3.162 | 0.0 | 16.743 | 3.42 | 48.93 |
| 6.77 | 17.641 | 0.571 | 2.60 | 3.9 | 0.0 | 30.895 | 3.237 | 0.0 | 16.641 | 3.503 | 49.44 |
| 6.78 | 17.539 | 0.591 | 2.60 | 3.9 | 0.0 | 29.677 | 3.37 | 0.0 | 16.539 | 3.649 | 50.23 |
| 6.79 | 17.539 | 0.591 | 2.60 | 3.9 | 0.0 | 29.677 | 3.37 | 0.0 | 16.539 | 3.649 | 50.24 |
| 6.80 | 17.539 | 0.591 | 2.60 | 3.9 | 0.0 | 29.677 | 3.37 | 0.0 | 16.539 | 3.65 | 50.24 |
| 6.81 | 17.947 | 0.612 | 2.87 | 3.9 | 0.0 | 29.325 | 3.41 | 0.0 | 16.947 | 3.687 | 49.9 |
| 6.82 | 17.845 | 0.622 | 2.98 | 4.0 | 0.0 | 28.69 | 3.486 | 0.0 | 16.845 | 3.771 | 50.4 |
| 6.83 | 18.049 | 0.622 | 3.05 | 4.0 | 0.0 | 29.018 | 3.446 | 0.0 | 17.049 | 3.725 | 49.95 |
| 6.84 | 18.559 | 0.602 | 3.10 | 4.0 | 0.0 | 30.829 | 3.244 | 0.0 | 17.559 | 3.499 | 48.32 |
| 6.85 | 19.272 | 0.602 | 3.21 | 4.0 | 0.0 | 32.013 | 3.124 | 0.0 | 18.272 | 3.36 | 46.88 |
| 6.86 | 19.884 | 0.581 | 3.39 | 4.0 | 0.0 | 34.224 | 2.922 | 0.0 | 18.884 | 3.136 | 45.16 |
| 6.87 | 21.21 | 0.571 | 4.47 | 4.0 | 0.0 | 37.145 | 2.692 | 0.0 | 20.21 | 2.876 | 42.57 |
| 6.88 | 21.618 | 0.561 | 5.99 | 4.0 | 0.0 | 38.535 | 2.595 | 0.0 | 20.618 | 2.769 | 41.65 |
| 6.89 | 22.433 | 0.551 | 6.67 | 4.0 | 0.0 | 40.713 | 2.456 | 0.0 | 21.433 | 2.615 | 40.12 |
| 6.90 | 23.555 | 0.54 | 6.82 | 4.0 | 0.0 | 43.62 | 2.293 | 0.0 | 22.555 | 2.434 | 38.22 |
| 6.91 | 24.473 | 0.53 | 6.84 | 4.1 | 0.0 | 46.175 | 2.166 | 0.0 | 23.473 | 2.294 | 36.74 |
| 6.92 | 24.983 | 0.53 | 6.86 | 4.1 | 0.0 | 47.138 | 2.121 | 0.0 | 23.983 | 2.244 | 36.08 |
| 6.93 | 25.492 | 0.54 | 6.89 | 4.1 | 0.0 | 47.207 | 2.118 | 0.0 | 24.492 | 2.239 | 35.69 |
| 6.94 | 25.798 | 0.54 | 6.91 | 4.1 | 0.0 | 47.774 | 2.093 | 0.0 | 24.798 | 2.211 | 35.32 |
| 6.95 | 25.9 | 0.551 | 6.91 | 4.1 | 0.0 | 47.005 | 2.127 | 0.0 | 24.9 | 2.247 | 35.46 |
| 6.96 | 26.002 | 0.561 | 6.90 | 4.1 | 0.0 | 46.349 | 2.158 | 0.0 | 25.002 | 2.278 | 35.56 |
| 6.97 | 26.206 | 0.571 | 6.90 | 4.1 | 0.0 | 45.895 | 2.179 | 0.0 | 25.206 | 2.3 | 35.55 |
| 6.98 | 26.104 | 0.591 | 6.92 | 4.1 | 0.0 | 44.169 | 2.264 | 0.0 | 25.104 | 2.391 | 36.12 |
| 6.99 | 22.433 | 0.479 | 6.70 | 4.1 | 0.0 | 46.833 | 2.135 | 0.0 | 21.433 | 2.276 | 38.23 |
| 7.00 | 26.41 | 0.622 | 6.91 | 4.1 | 0.0 | 42.46 | 2.355 | 0.0 | 25.41 | 2.486 | 36.43 |
| 7.01 | 26.614 | 0.612 | 6.92 | 4.1 | 0.0 | 43.487 | 2.3 | 0.0 | 25.614 | 2.426 | 35.97 |
| 7.02 | 26.614 | 0.622 | 6.93 | 4.1 | 0.0 | 42.788 | 2.337 | 0.0 | 25.614 | 2.466 | 36.19 |
| 7.03 | 26.818 | 0.622 | 6.93 | 4.1 | 0.0 | 43.116 | 2.319 | 0.0 | 25.818 | 2.446 | 35.95 |
| 7.04 | 26.92 | 0.642 | 6.93 | 4.1 | 0.0 | 41.931 | 2.385 | 0.0 | 25.92 | 2.515 | 36.25 |
| 7.05 | 26.92 | 0.663 | 6.92 | 4.1 | 0.0 | 40.603 | 2.463 | 0.0 | 25.92 | 2.597 | 36.68 |
| 7.06 | 26.92 | 0.673 | 6.91 | 4.1 | 0.0 | 40.0 | 2.5 | 0.0 | 25.92 | 2.637 | 36.89 |
| 7.07 | 27.022 | 0.663 | 6.90 | 4.1 | 0.0 | 40.757 | 2.454 | 0.0 | 26.022 | 2.588 | 36.57 |
| 7.08 | 27.226 | 0.663 | 6.88 | 4.0 | 0.0 | 41.065 | 2.435 | 0.0 | 26.226 | 2.567 | 36.33 |
| 7.09 | 27.532 | 0.673 | 6.88 | 4.0 | 0.0 | 40.909 | 2.444 | 0.0 | 26.532 | 2.576 | 36.18 |
| 7.10 | 27.532 | 0.683 | 6.89 | 4.0 | 0.0 | 40.31 | 2.481 | 0.0 | 26.532 | 2.614 | 36.38 |
| 7.11 | 27.328 | 0.704 | 6.89 | 4.0 | 0.0 | 38.818 | 2.576 | 0.0 | 26.328 | 2.716 | 37.03 |
| 7.12 | 27.124 | 0.714 | 6.90 | 4.0 | 0.0 | 37.989 | 2.632 | 0.0 | 26.124 | 2.777 | 37.46 |
| 7.13 | 27.022 | 0.724 | 6.90 | 4.0 | 0.0 | 37.323 | 2.679 | 0.0 | 26.022 | 2.827 | 37.78 |
| 7.14 | 26.716 | 0.755 | 6.88 | 4.1 | 0.0 | 35.385 | 2.826 | 0.0 | 25.716 | 2.984 | 38.75 |
| 7.15 | 26.308 | 0.775 | 6.85 | 4.0 | 0.0 | 33.946 | 2.946 | 0.0 | 25.308 | 3.113 | 39.64 |
| 7.16 | 25.9 | 0.795 | 6.82 | 4.1 | 0.0 | 32.579 | 3.069 | 0.0 | 24.9 | 3.247 | 40.54 |
| 7.17 | 25.187 | 0.826 | 6.82 | 4.1 | 0.0 | 30.493 | 3.279 | 0.0 | 24.187 | 3.475 | 42.08 |
| 7.18 | 24.983 | 0.826 | 6.78 | 4.1 | 0.0 | 30.246 | 3.306 | 0.0 | 23.983 | 3.506 | 42.37 |
| 7.19 | 24.575 | 0.836 | 6.76 | 4.1 | 0.0 | 29.396 | 3.402 | 0.0 | 23.575 | 3.611 | 43.14 |
| 7.20 | 24.065 | 0.846 | 6.75 | 4.1 | 0.0 | 28.446 | 3.515 | 0.0 | 23.065 | 3.737 | 44.08 |
| 7.21 | 24.473 | 0.816 | 6.72 | 4.1 | 0.0 | 29.991 | 3.334 | 0.0 | 23.473 | 3.541 | 42.91 |
| 7.22 | 24.371 | 0.816 | 6.67 | 4.1 | 0.0 | 29.866 | 3.348 | 0.0 | 23.371 | 3.557 | 43.06 |
| 7.23 | 24.269 | 0.816 | 6.64 | 4.1 | 0.0 | 29.741 | 3.362 | 0.0 | 23.269 | 3.573 | 43.21 |
| 7.24 | 24.677 | 0.816 | 6.64 | 4.1 | 0.0 | 30.241 | 3.307 | 0.0 | 23.677 | 3.511 | 42.62 |
| 7.25 | 24.677 | 0.816 | 6.66 | 4.1 | 0.0 | 30.241 | 3.307 | 0.0 | 23.677 | 3.511 | 42.63 |
| 7.26 | 24.269 | 0.826 | 6.69 | 4.1 | 0.0 | 29.381 | 3.404 | 0.0 | 23.269 | 3.618 | 43.41 |
| 7.27 | 23.861 | 0.826 | 6.69 | 4.1 | 0.0 | 28.887 | 3.462 | 0.0 | 22.861 | 3.684 | 44.02 |
| 7.28 | 23.963 | 0.816 | 6.69 | 4.1 | 0.0 | 29.366 | 3.405 | 0.0 | 22.963 | 3.623 | 43.68 |
| 7.29 | 23.963 | 0.795 | 6.67 | 4.1 | 0.0 | 30.142 | 3.318 | 0.0 | 22.963 | 3.53 | 43.27 |
| 7.30 | 23.453 | 0.765 | 6.62 | 4.2 | 0.0 | 30.658 | 3.262 | 0.0 | 22.453 | 3.476 | 43.45 |
| 7.31 | 23.249 | 0.755 | 6.69 | 4.2 | 0.0 | 30.793 | 3.247 | 0.0 | 22.249 | 3.463 | 43.56 |
| 7.32 | 23.045 | 0.744 | 6.69 | 4.2 | 0.0 | 30.974 | 3.228 | 0.0 | 22.045 | 3.445 | 43.65 |
| 7.33 | 22.739 | 0.724 | 6.72 | 4.2 | 0.0 | 31.407 | 3.184 | 0.0 | 21.739 | 3.401 | 43.72 |
| 7.34 | 22.535 | 0.724 | 6.76 | 4.2 | 0.0 | 31.126 | 3.213 | 0.0 | 21.535 | 3.434 | 44.04 |
| 7.35 | 22.127 | 0.724 | 6.78 | 4.2 | 0.0 | 30.562 | 3.272 | 0.0 | 21.127 | 3.502 | 44.71 |
| 7.36 | 22.026 | 0.724 | 6.78 | 4.2 | 0.0 | 30.423 | 3.287 | 0.0 | 21.026 | 3.52 | 44.88 |
| 7.37 | 21.618 | 0.724 | 6.78 | 4.2 | 0.0 | 29.859 | 3.349 | 0.0 | 20.618 | 3.592 | 45.57 |
| 7.38 | 21.312 | 0.704 | 6.90 | 4.2 | 0.0 | 30.273 | 3.303 | 0.0 | 20.312 | 3.547 | 45.66 |
| 7.39 | 22.026 | 0.704 | 7.09 | 4.2 | 0.0 | 31.287 | 3.196 | 0.0 | 21.026 | 3.424 | 44.45 |

Prova n. 5

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 7.40 | 22.535 | 0.683 | 7.14 | 4.2 | 0.0 | 32.994 | 3.031 | 0.0 | 21.535 | 3.242 | 43.16 |
| 7.41 | 23.045 | 0.683 | 7.21 | 4.2 | 0.0 | 33.741 | 2.964 | 0.0 | 22.045 | 3.165 | 42.37 |
| 7.42 | 23.249 | 0.683 | 7.24 | 4.2 | 0.0 | 34.04 | 2.938 | 0.0 | 22.249 | 3.136 | 42.06 |
| 7.43 | 23.555 | 0.673 | 7.40 | 4.2 | 0.0 | 35.0 | 2.857 | 0.0 | 22.555 | 3.048 | 41.38 |
| 7.44 | 24.167 | 0.663 | 7.49 | 4.2 | 0.0 | 36.451 | 2.743 | 0.0 | 23.167 | 2.922 | 40.29 |
| 7.45 | 24.575 | 0.642 | 7.46 | 4.2 | 0.0 | 38.279 | 2.612 | 0.0 | 23.575 | 2.779 | 39.26 |
| 7.46 | 25.187 | 0.653 | 7.50 | 4.2 | 0.0 | 38.571 | 2.593 | 0.0 | 24.187 | 2.754 | 38.68 |
| 7.47 | 25.492 | 0.642 | 7.52 | 4.2 | 0.0 | 39.707 | 2.518 | 0.0 | 24.492 | 2.674 | 38.05 |
| 7.48 | 25.798 | 0.642 | 7.55 | 4.2 | 0.0 | 40.184 | 2.489 | 0.0 | 24.798 | 2.64 | 37.66 |
| 7.49 | 26.002 | 0.632 | 7.55 | 4.2 | 0.0 | 41.142 | 2.431 | 0.0 | 25.002 | 2.578 | 37.2 |
| 7.50 | 26.104 | 0.622 | 7.55 | 4.2 | 0.0 | 41.968 | 2.383 | 0.0 | 25.104 | 2.527 | 36.86 |
| 7.51 | 26.104 | 0.612 | 7.53 | 4.2 | 0.0 | 42.654 | 2.344 | 0.0 | 25.104 | 2.486 | 36.64 |
| 7.52 | 25.9 | 0.612 | 7.50 | 4.2 | 0.0 | 42.32 | 2.363 | 0.0 | 24.9 | 2.507 | 36.89 |
| 7.53 | 25.798 | 0.612 | 7.45 | 4.2 | 0.0 | 42.154 | 2.372 | 0.0 | 24.798 | 2.518 | 37.02 |
| 7.54 | 25.289 | 0.622 | 7.42 | 4.3 | 0.0 | 40.658 | 2.46 | 0.0 | 24.289 | 2.614 | 37.89 |
| 7.55 | 24.881 | 0.622 | 7.37 | 4.2 | 0.0 | 40.002 | 2.5 | 0.0 | 23.881 | 2.66 | 38.42 |
| 7.56 | 24.473 | 0.622 | 7.33 | 4.3 | 0.0 | 39.346 | 2.542 | 0.0 | 23.473 | 2.707 | 38.97 |
| 7.57 | 23.453 | 0.653 | 7.25 | 4.3 | 0.0 | 35.916 | 2.784 | 0.0 | 22.453 | 2.974 | 41.11 |
| 7.58 | 23.147 | 0.663 | 7.24 | 4.3 | 0.0 | 34.913 | 2.864 | 0.0 | 22.147 | 3.063 | 41.79 |
| 7.59 | 23.045 | 0.673 | 7.24 | 4.3 | 0.0 | 34.242 | 2.92 | 0.0 | 22.045 | 3.124 | 42.17 |
| 7.60 | 23.147 | 0.683 | 7.26 | 4.3 | 0.0 | 33.89 | 2.951 | 0.0 | 22.147 | 3.156 | 42.24 |
| 7.61 | 23.249 | 0.683 | 7.27 | 4.3 | 0.0 | 34.04 | 2.938 | 0.0 | 22.249 | 3.141 | 42.08 |
| 7.62 | 23.045 | 0.683 | 7.30 | 4.3 | 0.0 | 33.741 | 2.964 | 0.0 | 22.045 | 3.171 | 42.39 |
| 7.63 | 23.453 | 0.673 | 7.35 | 4.3 | 0.0 | 34.848 | 2.87 | 0.0 | 22.453 | 3.067 | 41.56 |
| 7.64 | 23.759 | 0.653 | 7.34 | 4.3 | 0.0 | 36.384 | 2.748 | 0.0 | 22.759 | 2.935 | 40.67 |
| 7.65 | 24.269 | 0.632 | 7.42 | 4.3 | 0.0 | 38.4 | 2.604 | 0.0 | 23.269 | 2.778 | 39.49 |
| 7.66 | 24.269 | 0.632 | 7.42 | 4.3 | 0.0 | 38.4 | 2.604 | 0.0 | 23.269 | 2.778 | 39.49 |
| 7.67 | 24.371 | 0.622 | 7.42 | 4.3 | 0.0 | 39.182 | 2.552 | 0.0 | 23.371 | 2.722 | 39.12 |
| 7.68 | 24.473 | 0.622 | 7.41 | 4.4 | 0.0 | 39.346 | 2.542 | 0.0 | 23.473 | 2.71 | 38.99 |
| 7.69 | 24.779 | 0.622 | 7.45 | 4.4 | 0.0 | 39.838 | 2.51 | 0.0 | 23.779 | 2.675 | 38.58 |
| 7.70 | 25.187 | 0.622 | 7.46 | 4.4 | 0.0 | 40.494 | 2.47 | 0.0 | 24.187 | 2.629 | 38.04 |
| 7.71 | 24.881 | 0.642 | 7.46 | 4.4 | 0.0 | 38.755 | 2.58 | 0.0 | 23.881 | 2.749 | 38.88 |
| 7.72 | 24.779 | 0.653 | 7.50 | 4.4 | 0.0 | 37.946 | 2.635 | 0.0 | 23.779 | 2.809 | 39.26 |
| 7.73 | 25.187 | 0.653 | 7.73 | 4.4 | 0.0 | 38.571 | 2.593 | 0.0 | 24.187 | 2.76 | 38.72 |
| 7.74 | 25.492 | 0.642 | 7.68 | 4.4 | 0.0 | 39.707 | 2.518 | 0.0 | 24.492 | 2.68 | 38.08 |
| 7.75 | 25.187 | 0.642 | 7.67 | 4.4 | 0.0 | 39.232 | 2.549 | 0.0 | 24.187 | 2.714 | 38.48 |
| 7.76 | 24.677 | 0.673 | 7.75 | 4.4 | 0.0 | 36.667 | 2.727 | 0.0 | 23.677 | 2.908 | 39.83 |
| 7.77 | 24.779 | 0.693 | 7.81 | 4.4 | 0.0 | 35.756 | 2.797 | 0.0 | 23.779 | 2.982 | 40.11 |
| 7.78 | 24.779 | 0.693 | 7.81 | 4.4 | 0.0 | 35.756 | 2.797 | 0.0 | 23.779 | 2.982 | 40.11 |
| 7.79 | 24.779 | 0.693 | 7.81 | 4.4 | 0.0 | 35.756 | 2.797 | 0.0 | 23.779 | 2.983 | 40.12 |
| 7.80 | 25.289 | 0.816 | 7.26 | 4.4 | 0.0 | 30.991 | 3.227 | 0.0 | 24.289 | 3.437 | 41.84 |
| 7.81 | 24.371 | 0.816 | 7.23 | 4.4 | 0.0 | 29.866 | 3.348 | 0.0 | 23.371 | 3.575 | 43.14 |
| 7.82 | 23.657 | 0.806 | 7.19 | 4.5 | 0.0 | 29.351 | 3.407 | 0.0 | 22.657 | 3.646 | 44.02 |
| 7.83 | 22.535 | 0.775 | 7.09 | 4.4 | 0.0 | 29.077 | 3.439 | 0.0 | 21.535 | 3.693 | 45.18 |
| 7.84 | 22.127 | 0.765 | 7.03 | 4.5 | 0.0 | 28.924 | 3.457 | 0.0 | 21.127 | 3.718 | 45.66 |
| 7.85 | 21.516 | 0.744 | 6.97 | 4.5 | 0.0 | 28.919 | 3.458 | 0.0 | 20.516 | 3.727 | 46.26 |
| 7.86 | 20.904 | 0.734 | 6.91 | 4.5 | 0.0 | 28.48 | 3.511 | 0.0 | 19.904 | 3.794 | 47.13 |
| 7.87 | 20.394 | 0.714 | 6.85 | 4.5 | 0.0 | 28.563 | 3.501 | 0.0 | 19.394 | 3.791 | 47.63 |
| 7.88 | 20.292 | 0.683 | 6.78 | 4.5 | 0.0 | 29.71 | 3.366 | 0.0 | 19.292 | 3.646 | 47.11 |
| 7.89 | 20.088 | 0.663 | 6.71 | 4.5 | 0.0 | 30.299 | 3.3 | 0.0 | 19.088 | 3.579 | 47.02 |
| 7.90 | 19.272 | 0.632 | 6.65 | 4.5 | 0.0 | 30.494 | 3.279 | 0.0 | 18.272 | 3.569 | 47.84 |
| 7.91 | 19.068 | 0.622 | 6.62 | 4.5 | 0.0 | 30.656 | 3.262 | 0.0 | 18.068 | 3.554 | 48 |
| 7.92 | 18.559 | 0.622 | 6.58 | 4.5 | 0.0 | 29.838 | 3.351 | 0.0 | 17.559 | 3.661 | 49.06 |
| 7.93 | 17.845 | 0.622 | 6.53 | 4.5 | 0.0 | 28.69 | 3.486 | 0.0 | 16.845 | 3.822 | 50.62 |
| 7.94 | 17.029 | 0.622 | 6.47 | 4.4 | 0.0 | 27.378 | 3.653 | 0.0 | 16.029 | 4.024 | 52.54 |
| 7.95 | 16.519 | 0.602 | 6.40 | 4.4 | 0.0 | 27.44 | 3.644 | 0.0 | 15.519 | 4.028 | 53.25 |
| 7.96 | 16.315 | 0.591 | 6.33 | 4.4 | 0.0 | 27.606 | 3.622 | 0.0 | 15.315 | 4.01 | 53.45 |
| 7.97 | 16.111 | 0.581 | 6.29 | 4.4 | 0.0 | 27.73 | 3.606 | 0.0 | 15.111 | 3.998 | 53.69 |
| 7.98 | 16.213 | 0.581 | 6.28 | 4.4 | 0.0 | 27.905 | 3.584 | 0.0 | 15.213 | 3.971 | 53.43 |
| 7.99 | 16.621 | 0.571 | 6.26 | 4.4 | 0.0 | 29.109 | 3.435 | 0.0 | 15.621 | 3.797 | 52.1 |
| 8.00 | 16.825 | 0.571 | 6.30 | 4.4 | 0.0 | 29.466 | 3.394 | 0.0 | 15.825 | 3.747 | 51.6 |
| 8.01 | 17.029 | 0.571 | 6.32 | 4.4 | 0.0 | 29.823 | 3.353 | 0.0 | 16.029 | 3.698 | 51.11 |
| 8.02 | 16.927 | 0.571 | 6.32 | 4.4 | 0.0 | 29.644 | 3.373 | 0.0 | 15.927 | 3.723 | 51.36 |
| 8.03 | 17.029 | 0.561 | 6.35 | 4.4 | 0.0 | 30.355 | 3.294 | 0.0 | 16.029 | 3.634 | 50.82 |
| 8.04 | 18.355 | 0.551 | 6.38 | 4.4 | 0.0 | 33.312 | 3.002 | 0.0 | 17.355 | 3.287 | 47.57 |
| 8.05 | 18.864 | 0.551 | 6.38 | 4.4 | 0.0 | 34.236 | 2.921 | 0.0 | 17.864 | 3.191 | 46.52 |

Prova n. 5

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|--------|-------|-----|--------|-------|-------|
| 8.06 | 19.272 | 0.571 | 6.40 | 4.4 | 0.0 | 33.751 | 2.963 | 0.0 | 18.272 | 3.23 | 46.27 |
| 8.07 | 19.578 | 0.581 | 6.42 | 4.4 | 0.0 | 33.697 | 2.968 | 0.0 | 18.578 | 3.231 | 45.94 |
| 8.08 | 20.802 | 0.591 | 6.52 | 4.4 | 0.0 | 35.198 | 2.841 | 0.0 | 19.802 | 3.078 | 43.96 |
| 8.09 | 22.433 | 0.612 | 6.62 | 4.4 | 0.0 | 36.655 | 2.728 | 0.0 | 21.433 | 2.938 | 41.79 |
| 8.10 | 24.575 | 0.622 | 6.76 | 4.5 | 0.0 | 39.51 | 2.531 | 0.0 | 23.575 | 2.708 | 38.9 |
| 8.11 | 29.163 | 0.632 | 7.39 | 4.5 | 0.0 | 46.144 | 2.167 | 0.0 | 28.163 | 2.293 | 33.68 |
| 8.12 | 29.673 | 0.653 | 7.64 | 4.5 | 0.0 | 45.441 | 2.201 | 0.0 | 28.673 | 2.327 | 33.57 |
| 8.13 | 30.795 | 0.642 | 7.66 | 4.5 | 0.0 | 47.967 | 2.085 | 0.0 | 29.795 | 2.2 | 32.26 |
| 8.14 | 31.815 | 0.653 | 7.45 | 4.5 | 0.0 | 48.721 | 2.052 | 0.0 | 30.815 | 2.162 | 31.52 |
| 8.15 | 32.63 | 0.673 | 7.20 | 4.5 | 0.0 | 48.484 | 2.063 | 0.0 | 31.63 | 2.17 | 31.16 |
| 8.16 | 32.936 | 0.714 | 7.00 | 4.5 | 0.0 | 46.129 | 2.168 | 0.0 | 31.936 | 2.28 | 31.62 |
| 8.17 | 32.732 | 0.775 | 6.91 | 4.5 | 0.0 | 42.235 | 2.368 | 0.0 | 31.732 | 2.491 | 32.83 |
| 8.18 | 32.121 | 0.846 | 6.92 | 4.6 | 0.0 | 37.968 | 2.634 | 0.0 | 31.121 | 2.774 | 34.55 |
| 8.19 | 30.693 | 0.948 | 7.11 | 4.6 | 0.0 | 32.377 | 3.089 | 0.0 | 29.693 | 3.261 | 37.58 |
| 8.20 | 30.285 | 0.969 | 7.22 | 4.6 | 0.0 | 31.254 | 3.2 | 0.0 | 29.285 | 3.381 | 38.33 |
| 8.21 | 30.693 | 0.959 | 7.26 | 4.6 | 0.0 | 32.005 | 3.124 | 0.0 | 29.693 | 3.299 | 37.75 |
| 8.22 | 30.795 | 0.959 | 7.31 | 4.6 | 0.0 | 32.112 | 3.114 | 0.0 | 29.795 | 3.288 | 37.64 |
| 8.23 | 30.795 | 0.959 | 7.35 | 4.6 | 0.0 | 32.112 | 3.114 | 0.0 | 29.795 | 3.288 | 37.64 |
| 8.24 | 30.285 | 0.969 | 7.47 | 4.6 | 0.0 | 31.254 | 3.2 | 0.0 | 29.285 | 3.382 | 38.34 |
| 8.25 | 29.775 | 0.979 | 7.57 | 4.6 | 0.0 | 30.414 | 3.288 | 0.0 | 28.775 | 3.479 | 39.05 |
| 8.26 | 29.469 | 0.989 | 7.64 | 4.6 | 0.0 | 29.797 | 3.356 | 0.0 | 28.469 | 3.553 | 39.55 |
| 8.27 | 29.673 | 0.999 | 7.77 | 4.6 | 0.0 | 29.703 | 3.367 | 0.0 | 28.673 | 3.564 | 39.47 |
| 8.28 | 29.367 | 1.01 | 7.83 | 4.6 | 0.0 | 29.076 | 3.439 | 0.0 | 28.367 | 3.643 | 39.99 |
| 8.29 | 29.061 | 1.01 | 7.96 | 4.6 | 0.0 | 28.773 | 3.475 | 0.0 | 28.061 | 3.684 | 40.34 |
| 8.30 | 28.654 | 0.979 | 8.16 | 4.7 | 0.0 | 29.269 | 3.417 | 0.0 | 27.654 | 3.625 | 40.35 |
| 8.31 | 28.144 | 0.938 | 8.24 | 4.6 | 0.0 | 30.004 | 3.333 | 0.0 | 27.144 | 3.54 | 40.32 |
| 8.32 | 27.634 | 0.887 | 8.49 | 4.7 | 0.0 | 31.154 | 3.21 | 0.0 | 26.634 | 3.414 | 40.1 |
| 8.33 | 27.43 | 0.836 | 8.70 | 4.7 | 0.0 | 32.811 | 3.048 | 0.0 | 26.43 | 3.243 | 39.47 |
| 8.34 | 28.042 | 0.785 | 8.81 | 4.7 | 0.0 | 35.722 | 2.799 | 0.0 | 27.042 | 2.975 | 37.84 |
| 8.35 | 29.061 | 0.744 | 8.89 | 4.7 | 0.0 | 39.06 | 2.56 | 0.0 | 28.061 | 2.715 | 35.95 |
| 8.36 | 30.081 | 0.693 | 9.09 | 4.7 | 0.0 | 43.407 | 2.304 | 0.0 | 29.081 | 2.438 | 33.94 |
| 8.37 | 30.489 | 0.673 | 9.24 | 4.7 | 0.0 | 45.303 | 2.207 | 0.0 | 29.489 | 2.334 | 33.16 |
| 8.38 | 30.693 | 0.653 | 9.37 | 4.6 | 0.0 | 47.003 | 2.128 | 0.0 | 29.693 | 2.249 | 32.59 |
| 8.39 | 30.999 | 0.642 | 9.57 | 4.7 | 0.0 | 48.285 | 2.071 | 0.0 | 29.999 | 2.188 | 32.09 |
| 8.40 | 31.509 | 0.612 | 9.82 | 4.7 | 0.0 | 51.485 | 1.942 | 0.0 | 30.509 | 2.051 | 31.03 |
| 8.41 | 32.019 | 0.602 | 9.98 | 4.7 | 0.0 | 53.188 | 1.88 | 0.0 | 31.019 | 1.983 | 30.38 |
| 8.42 | 32.528 | 0.612 | 10.05 | 4.7 | 0.0 | 53.15 | 1.881 | 0.0 | 31.528 | 1.983 | 30.13 |
| 8.43 | 32.324 | 0.612 | 10.12 | 4.7 | 0.0 | 52.817 | 1.893 | 0.0 | 31.324 | 1.997 | 30.31 |
| 8.44 | 32.528 | 0.622 | 10.24 | 4.7 | 0.0 | 52.296 | 1.912 | 0.0 | 31.528 | 2.016 | 30.33 |
| 8.45 | 32.528 | 0.632 | 10.27 | 4.7 | 0.0 | 51.468 | 1.943 | 0.0 | 31.528 | 2.048 | 30.52 |
| 8.46 | 32.63 | 0.632 | 10.36 | 4.7 | 0.0 | 51.63 | 1.937 | 0.0 | 31.63 | 2.042 | 30.43 |
| 8.47 | 32.834 | 0.632 | 10.46 | 4.7 | 0.0 | 51.953 | 1.925 | 0.0 | 31.834 | 2.029 | 30.25 |
| 8.48 | 32.936 | 0.642 | 10.69 | 4.7 | 0.0 | 51.302 | 1.949 | 0.0 | 31.936 | 2.054 | 30.35 |
| 8.49 | 33.038 | 0.663 | 10.83 | 4.7 | 0.0 | 49.831 | 2.007 | 0.0 | 32.038 | 2.115 | 30.65 |
| 8.50 | 33.344 | 0.673 | 10.98 | 4.7 | 0.0 | 49.545 | 2.018 | 0.0 | 32.344 | 2.126 | 30.57 |
| 8.51 | 33.65 | 0.683 | 11.01 | 4.7 | 0.0 | 49.268 | 2.03 | 0.0 | 32.65 | 2.137 | 30.49 |
| 8.52 | 33.752 | 0.693 | 11.01 | 4.7 | 0.0 | 48.704 | 2.053 | 0.0 | 32.752 | 2.161 | 30.58 |
| 8.53 | 33.65 | 0.714 | 11.18 | 4.7 | 0.0 | 47.129 | 2.122 | 0.0 | 32.65 | 2.234 | 31.03 |
| 8.54 | 33.446 | 0.714 | 11.23 | 4.7 | 0.0 | 46.843 | 2.135 | 0.0 | 32.446 | 2.249 | 31.2 |
| 8.55 | 33.446 | 0.714 | 11.42 | 4.7 | 0.0 | 46.843 | 2.135 | 0.0 | 32.446 | 2.249 | 31.2 |
| 8.56 | 33.65 | 0.724 | 11.48 | 4.7 | 0.0 | 46.478 | 2.152 | 0.0 | 32.65 | 2.266 | 31.2 |
| 8.57 | 33.752 | 0.724 | 11.56 | 4.7 | 0.0 | 46.619 | 2.145 | 0.0 | 32.752 | 2.259 | 31.11 |
| 8.58 | 33.956 | 0.714 | 11.65 | 4.7 | 0.0 | 47.557 | 2.103 | 0.0 | 32.956 | 2.214 | 30.77 |
| 8.59 | 33.854 | 0.714 | 11.67 | 4.7 | 0.0 | 47.415 | 2.109 | 0.0 | 32.854 | 2.221 | 30.86 |
| 8.60 | 33.446 | 0.714 | 11.71 | 4.7 | 0.0 | 46.843 | 2.135 | 0.0 | 32.446 | 2.25 | 31.21 |
| 8.61 | 33.752 | 0.714 | 11.92 | 4.7 | 0.0 | 47.272 | 2.115 | 0.0 | 32.752 | 2.228 | 30.95 |
| 8.62 | 33.752 | 0.714 | 12.03 | 4.7 | 0.0 | 47.272 | 2.115 | 0.0 | 32.752 | 2.228 | 30.95 |
| 8.63 | 33.854 | 0.714 | 12.10 | 4.7 | 0.0 | 47.415 | 2.109 | 0.0 | 32.854 | 2.221 | 30.86 |
| 8.64 | 33.956 | 0.714 | 12.18 | 4.7 | 0.0 | 47.557 | 2.103 | 0.0 | 32.956 | 2.215 | 30.78 |
| 8.65 | 34.16 | 0.714 | 12.23 | 4.7 | 0.0 | 47.843 | 2.09 | 0.0 | 33.16 | 2.201 | 30.61 |
| 8.66 | 34.16 | 0.714 | 12.29 | 4.7 | 0.0 | 47.843 | 2.09 | 0.0 | 33.16 | 2.201 | 30.61 |
| 8.67 | 34.16 | 0.714 | 12.32 | 4.8 | 0.0 | 47.843 | 2.09 | 0.0 | 33.16 | 2.201 | 30.61 |
| 8.68 | 34.058 | 0.714 | 12.36 | 4.8 | 0.0 | 47.7 | 2.096 | 0.0 | 33.058 | 2.208 | 30.7 |
| 8.69 | 34.058 | 0.714 | 12.40 | 4.8 | 0.0 | 47.7 | 2.096 | 0.0 | 33.058 | 2.208 | 30.7 |
| 8.70 | 34.466 | 0.714 | 12.53 | 4.8 | 0.0 | 48.272 | 2.072 | 0.0 | 33.466 | 2.181 | 30.36 |
| 8.71 | 34.466 | 0.714 | 12.57 | 4.8 | 0.0 | 48.272 | 2.072 | 0.0 | 33.466 | 2.181 | 30.36 |

Prova n. 5

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|--------|-------|-----|--------|-------|-------|
| 8.72 | 34.466 | 0.714 | 12.60 | 4.8 | 0.0 | 48.272 | 2.072 | 0.0 | 33.466 | 2.181 | 30.36 |
| 8.73 | 34.466 | 0.714 | 12.60 | 4.8 | 0.0 | 48.272 | 2.072 | 0.0 | 33.466 | 2.181 | 30.36 |
| 8.74 | 34.466 | 0.714 | 12.64 | 4.8 | 0.0 | 48.272 | 2.072 | 0.0 | 33.466 | 2.181 | 30.36 |
| 8.75 | 34.466 | 0.714 | 12.72 | 4.8 | 0.0 | 48.272 | 2.072 | 0.0 | 33.466 | 2.182 | 30.36 |
| 8.76 | 34.772 | 0.714 | 12.84 | 4.8 | 0.0 | 48.7 | 2.053 | 0.0 | 33.772 | 2.161 | 30.12 |
| 8.77 | 34.772 | 0.714 | 12.84 | 4.8 | 0.0 | 48.7 | 2.053 | 0.0 | 33.772 | 2.162 | 30.12 |
| 8.78 | 34.772 | 0.714 | 12.84 | 4.8 | 0.0 | 48.7 | 2.053 | 0.0 | 33.772 | 2.162 | 30.12 |
| 8.79 | 25.289 | 0.255 | 14.22 | 4.8 | 0.0 | 99.173 | 1.008 | 0.0 | 24.289 | 1.083 | 27.78 |

STIMA PARAMETRI GEOTECNICI Nr.5**TERRENI COESIVI**Coesione non drenata (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Lunne & Eide | Sunda Relazione Sperimentale | Lunne T.-Kleven A. 1981 | Kjekstad. 1978 - Lunne, Robertson and Powell 1977 | Lunne, Robertson and Powell 1977 | Terzaghi |
|------------------|--------------------------|--------------------------|--------------|------------------------------|-------------------------|---|----------------------------------|----------|
| 0.34 | 103.378 | 73.222 | 4.99 | 3.76 | 6.89 | 6.08 | 5.44 | 5.17 |
| 1.00 | 21.134 | 16.178 | 1.01 | 1.38 | 1.40 | 1.23 | 1.10 | 1.06 |
| 3.00 | 18.483 | 15.147 | 0.87 | 1.22 | 1.21 | 1.06 | 0.95 | 0.92 |
| 4.00 | 19.496 | 18.204 | 0.91 | 1.26 | 1.25 | 1.11 | 0.99 | 0.97 |
| 6.00 | 25.228 | 21.797 | 1.17 | 1.53 | 1.61 | 1.42 | 1.27 | 1.26 |
| 7.50 | 25.006 | 21.816 | 1.14 | 1.50 | 1.58 | 1.39 | 1.24 | 1.25 |
| 8.79 | 33.066 | 27.956 | 1.52 | 1.85 | 2.09 | 1.85 | 1.65 | 1.65 |

Modulo Edometrico (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Mitchell & Gardner (1975) | Metodo generale del modulo edometrico | Buisman | Buisman Sanglerat |
|------------------|--------------------------|--------------------------|---------------------------|---------------------------------------|---------|-------------------|
| 0.34 | 103.378 | 73.222 | 258.44 | 206.75 | 310.13 | 155.07 |
| 1.00 | 21.134 | 16.178 | 52.84 | 42.27 | 63.40 | 63.40 |
| 3.00 | 18.483 | 15.147 | 92.42 | 45.12 | 110.90 | 55.45 |
| 4.00 | 19.496 | 18.204 | 97.48 | 43.14 | 116.98 | 58.49 |
| 6.00 | 25.228 | 21.797 | 63.07 | 50.46 | 75.68 | 75.68 |
| 7.50 | 25.006 | 21.816 | 62.52 | 50.01 | 75.02 | 75.02 |
| 8.79 | 33.066 | 27.956 | 82.67 | 66.13 | 99.20 | 99.20 |

Modulo di deformazione non drenato Eu (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Cancelli 1980 | Ladd 1977 (30) |
|------------------|--------------------------|--------------------------|---------------|----------------|
| 0.34 | 103.378 | 73.222 | 3875.27 | 155.10 |
| 1.00 | 21.134 | 16.178 | 787.24 | 31.80 |
| 3.00 | 18.483 | 15.147 | 677.86 | 27.60 |
| 4.00 | 19.496 | 18.204 | 704.59 | 29.10 |
| 6.00 | 25.228 | 21.797 | 908.30 | 37.80 |
| 7.50 | 25.006 | 21.816 | 886.85 | 37.50 |
| 8.79 | 33.066 | 27.956 | 1178.39 | 49.50 |

Modulo di deformazione a taglio

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Modulo di deformazione a taglio (Kg/cm ²) |
|------------------|--------------------------|--------------------------|-----------------|---|
| 0.34 | 103.378 | 73.222 | Imai & Tomauchi | 476.40 |
| 1.00 | 21.134 | 16.178 | Imai & Tomauchi | 180.60 |
| 3.00 | 18.483 | 15.147 | Imai & Tomauchi | 166.40 |
| 4.00 | 19.496 | 18.204 | Imai & Tomauchi | 171.92 |
| 6.00 | 25.228 | 21.797 | Imai & Tomauchi | 201.24 |
| 7.50 | 25.006 | 21.816 | Imai & Tomauchi | 200.15 |
| 8.79 | 33.066 | 27.956 | Imai & Tomauchi | 237.41 |

Prova n. 5

Grado di sovraconsolidazione

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Stress-History |
|------------------|--------------------------|--------------------------|----------------|
| 0.34 | 103.378 | 73.222 | >9 |
| 1.00 | 21.134 | 16.178 | 3.49 |
| 3.00 | 18.483 | 15.147 | 1.06 |
| 4.00 | 19.496 | 18.204 | 0.64 |
| 6.00 | 25.228 | 21.797 | 0.58 |
| 7.50 | 25.006 | 21.816 | <0.5 |
| 8.79 | 33.066 | 27.956 | <0.5 |

Peso unità di volume

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|--|
| 0.34 | 103.378 | 73.222 | Meyerhof | 2.25 |
| 1.00 | 21.134 | 16.178 | Meyerhof | 1.98 |
| 3.00 | 18.483 | 15.147 | Meyerhof | 1.96 |
| 4.00 | 19.496 | 18.204 | Meyerhof | 1.96 |
| 6.00 | 25.228 | 21.797 | Meyerhof | 2.01 |
| 7.50 | 25.006 | 21.816 | Meyerhof | 2.00 |
| 8.79 | 33.066 | 27.956 | Meyerhof | 2.05 |

Peso unità di volume saturo

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume saturo (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|---|
| 0.34 | 103.378 | 73.222 | Meyerhof | 2.33 |
| 1.00 | 21.134 | 16.178 | Meyerhof | 2.06 |
| 3.00 | 18.483 | 15.147 | Meyerhof | 2.04 |
| 4.00 | 19.496 | 18.204 | Meyerhof | 2.04 |
| 6.00 | 25.228 | 21.797 | Meyerhof | 2.09 |
| 7.50 | 25.006 | 21.816 | Meyerhof | 2.08 |
| 8.79 | 33.066 | 27.956 | Meyerhof | 2.13 |

TERRENI INCOERENTI

Densità relativa (%)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Baldi 1978 - Schmertmann 1976 | Schmertmann | Harman | Lancellotta 1983 | Jamiolkowski 1985 |
|------------------|--------------------------|--------------------------|-------------------------------|-------------|--------|------------------|-------------------|
| 0.34 | 103.378 | 73.222 | 100 | 100 | 100 | 100 | 100 |
| 1.00 | 21.134 | 16.178 | 49.57 | 66.6 | 65.75 | 50.27 | 78.92 |
| 3.00 | 18.483 | 15.147 | 30.69 | 33.15 | 35.63 | 31.22 | 44.67 |
| 4.00 | 19.496 | 18.204 | 24.35 | 20.24 | 24.17 | 24.83 | 30.36 |
| 6.00 | 25.228 | 21.797 | 26.65 | 20.16 | 24.52 | 27.15 | 27.61 |
| 7.50 | 25.006 | 21.816 | 22.16 | 11.81 | 17.04 | 22.62 | 18.8 |
| 8.79 | 33.066 | 27.956 | 27.39 | 16.9 | 22.05 | 27.89 | 21.34 |

Angolo di resistenza al taglio (°)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Durgunouglu-Mitchell 1973 | Caquot | Koppejan | De Beer | Schmertmann | Robertson & Campanella 1983 | Herminier | Meyerhof 1951 |
|------------------|--------------------------|--------------------------|---------------------------|--------|----------|---------|-------------|-----------------------------|-----------|---------------|
| 0.34 | 103.378 | 73.222 | 45 | 45 | 45 | 43.62 | 42 | 45 | 15 | 45 |
| 1.00 | 21.134 | 16.178 | 37.87 | 34.66 | 31.91 | 29.75 | 37.32 | 42.79 | 30.52 | 26.49 |
| 3.00 | 18.483 | 15.147 | 32.45 | 28.73 | 25.68 | 24.07 | 32.64 | 36.27 | 24.19 | 25.3 |
| 4.00 | 19.496 | 18.204 | 30.22 | 26.25 | 23.08 | 21.69 | 30.83 | 33.17 | 23 | 25.75 |
| 6.00 | 25.228 | 21.797 | 29.86 | 25.78 | 22.58 | 21.23 | 30.82 | 32.55 | 22.85 | 28.33 |
| 7.50 | 25.006 | 21.816 | 28.48 | 24.25 | 20.98 | 19.77 | 29.65 | 30.49 | 22.38 | 28.23 |
| 8.79 | 33.066 | 27.956 | 28.96 | 24.69 | 21.44 | 20.19 | 30.37 | 31.1 | 22.52 | 31.85 |

Prova n. 5Modulo di Young (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Schmertmann | Robertson & Campanella (1983) | ISOPT-1 1988 Ey(50) |
|------------------|--------------------------|--------------------------|-------------|-------------------------------|---------------------|
| 0.34 | 103.378 | 73.222 | 258.44 | 206.76 | 413.51 |
| 1.00 | 21.134 | 16.178 | 52.84 | 42.27 | 169.24 |
| 3.00 | 18.483 | 15.147 | 46.21 | 36.97 | 222.20 |
| 4.00 | 19.496 | 18.204 | 48.74 | 38.99 | 264.58 |
| 6.00 | 25.228 | 21.797 | 63.07 | 50.46 | 342.62 |
| 7.50 | 25.006 | 21.816 | 62.52 | 50.01 | 364.66 |
| 8.79 | 33.066 | 27.956 | 82.67 | 66.13 | 462.00 |

Modulo Edometrico (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Robertson & Campanella da Schmertmann | Lunne-Christoffersen 1983 - Robertson and Powell 1997 | Kulhawy-Mayne 1990 | Mitchell & Gardner 1975 | Buisman - Sanglerat |
|------------------|--------------------------|--------------------------|---------------------------------------|---|--------------------|-------------------------|---------------------|
| 0.34 | 103.378 | 73.222 | 82.54 | 222.76 | 844.31 | 155.07 | 155.07 |
| 1.00 | 21.134 | 16.178 | 54.90 | 82.90 | 164.94 | 42.27 | 105.67 |
| 3.00 | 18.483 | 15.147 | 31.50 | 72.50 | 140.88 | 36.97 | 92.42 |
| 4.00 | 19.496 | 18.204 | 24.84 | 76.48 | 146.76 | 38.99 | 97.48 |
| 6.00 | 25.228 | 21.797 | 28.46 | 98.96 | 191.57 | 50.46 | 126.14 |
| 7.50 | 25.006 | 21.816 | 25.95 | 98.09 | 186.86 | 50.01 | 125.03 |
| 8.79 | 33.066 | 27.956 | 33.56 | 129.71 | 251.00 | 66.13 | 99.20 |

Modulo di deformazione a taglio

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | G (Kg/cm ²) |
|------------------|--------------------------|--------------------------|-----------------|-------------------------|
| 0.34 | 103.378 | 73.222 | Imai & Tomauchi | 476.40 |
| 1.00 | 21.134 | 16.178 | Imai & Tomauchi | 180.60 |
| 3.00 | 18.483 | 15.147 | Imai & Tomauchi | 166.40 |
| 4.00 | 19.496 | 18.204 | Imai & Tomauchi | 171.92 |
| 6.00 | 25.228 | 21.797 | Imai & Tomauchi | 201.24 |
| 7.50 | 25.006 | 21.816 | Imai & Tomauchi | 200.15 |
| 8.79 | 33.066 | 27.956 | Imai & Tomauchi | 237.41 |

Grado di sovraconsolidazione

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Stress-History | Piacentini Righi 1978 | Larsson 1991 S.G.I. | Ladd e Foot 1977 |
|------------------|--------------------------|--------------------------|----------------|-----------------------|---------------------|------------------|
| 0.34 | 103.378 | 73.222 | >9 | >9 | <0.5 | >9 |
| 1.00 | 21.134 | 16.178 | 3.49 | >9 | 1.03 | >9 |
| 3.00 | 18.483 | 15.147 | 1.06 | >9 | <0.5 | >9 |
| 4.00 | 19.496 | 18.204 | 0.64 | >9 | <0.5 | 7.33 |
| 6.00 | 25.228 | 21.797 | 0.58 | >9 | <0.5 | 6.47 |
| 7.50 | 25.006 | 21.816 | <0.5 | >9 | <0.5 | 4.33 |
| 8.79 | 33.066 | 27.956 | <0.5 | >9 | <0.5 | 4.86 |

Modulo di reazione Ko

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Ko |
|------------------|--------------------------|--------------------------|------------------------|------|
| 0.34 | 103.378 | 73.222 | Kulhawy & Mayne (1990) | 0.00 |
| 1.00 | 21.134 | 16.178 | Kulhawy & Mayne (1990) | 0.79 |
| 3.00 | 18.483 | 15.147 | Kulhawy & Mayne (1990) | 0.36 |
| 4.00 | 19.496 | 18.204 | Kulhawy & Mayne (1990) | 0.26 |
| 6.00 | 25.228 | 21.797 | Kulhawy & Mayne (1990) | 0.25 |
| 7.50 | 25.006 | 21.816 | Kulhawy & Mayne (1990) | 0.00 |
| 8.79 | 33.066 | 27.956 | Kulhawy & Mayne (1990) | 0.00 |

Prova n. 5**Fattori di compressibilità C Crm**

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | C | Crm |
|------------------|--------------------------|--------------------------|---------|---------|
| 0.34 | 103.378 | 73.222 | 0.09428 | 0.01226 |
| 1.00 | 21.134 | 16.178 | 0.12993 | 0.01689 |
| 3.00 | 18.483 | 15.147 | 0.13896 | 0.01806 |
| 4.00 | 19.496 | 18.204 | 0.13522 | 0.01758 |
| 6.00 | 25.228 | 21.797 | 0.11972 | 0.01556 |
| 7.50 | 25.006 | 21.816 | 0.12019 | 0.01562 |
| 8.79 | 33.066 | 27.956 | 0.11813 | 0.01536 |

Peso unità di volume

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|--|
| 0.34 | 103.378 | 73.222 | Meyerhof | 1.80 |
| 1.00 | 21.134 | 16.178 | Meyerhof | 1.80 |
| 3.00 | 18.483 | 15.147 | Meyerhof | 1.80 |
| 4.00 | 19.496 | 18.204 | Meyerhof | 1.80 |
| 6.00 | 25.228 | 21.797 | Meyerhof | 1.80 |
| 7.50 | 25.006 | 21.816 | Meyerhof | 1.80 |
| 8.79 | 33.066 | 27.956 | Meyerhof | 1.80 |

Peso unità di volume saturo

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume saturo (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|---|
| 0.34 | 103.378 | 73.222 | Meyerhof | 2.10 |
| 1.00 | 21.134 | 16.178 | Meyerhof | 2.10 |
| 3.00 | 18.483 | 15.147 | Meyerhof | 2.10 |
| 4.00 | 19.496 | 18.204 | Meyerhof | 2.10 |
| 6.00 | 25.228 | 21.797 | Meyerhof | 2.10 |
| 7.50 | 25.006 | 21.816 | Meyerhof | 2.10 |
| 8.79 | 33.066 | 27.956 | Meyerhof | 2.10 |

Liquefazione - Accelerazione sismica massima (g)=0

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Fattore di sicurezza a liquefazione |
|------------------|--------------------------|--------------------------|------------------------|-------------------------------------|
| 0.34 | 103.378 | 73.222 | Robertson & Wride 1997 | 0 |
| 1.00 | 21.134 | 16.178 | Robertson & Wride 1997 | 0 |
| 3.00 | 18.483 | 15.147 | Robertson & Wride 1997 | 0 |
| 4.00 | 19.496 | 18.204 | Robertson & Wride 1997 | 0 |
| 6.00 | 25.228 | 21.797 | Robertson & Wride 1997 | 0 |
| 7.50 | 25.006 | 21.816 | Robertson & Wride 1997 | 0 |
| 8.79 | 33.066 | 27.956 | Robertson & Wride 1997 | 0 |

Permeabilità

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Permeabilità (cm/s) |
|------------------|--------------------------|--------------------------|-----------------------|---------------------|
| 0.34 | 103.378 | 73.222 | Piacentini-Righi 1988 | 1E-11 |
| 1.00 | 21.134 | 16.178 | Piacentini-Righi 1988 | 1E-11 |
| 3.00 | 18.483 | 15.147 | Piacentini-Righi 1988 | 1E-11 |
| 4.00 | 19.496 | 18.204 | Piacentini-Righi 1988 | 1E-11 |
| 6.00 | 25.228 | 21.797 | Piacentini-Righi 1988 | 1E-11 |
| 7.50 | 25.006 | 21.816 | Piacentini-Righi 1988 | 1E-11 |
| 8.79 | 33.066 | 27.956 | Piacentini-Righi 1988 | 1E-11 |

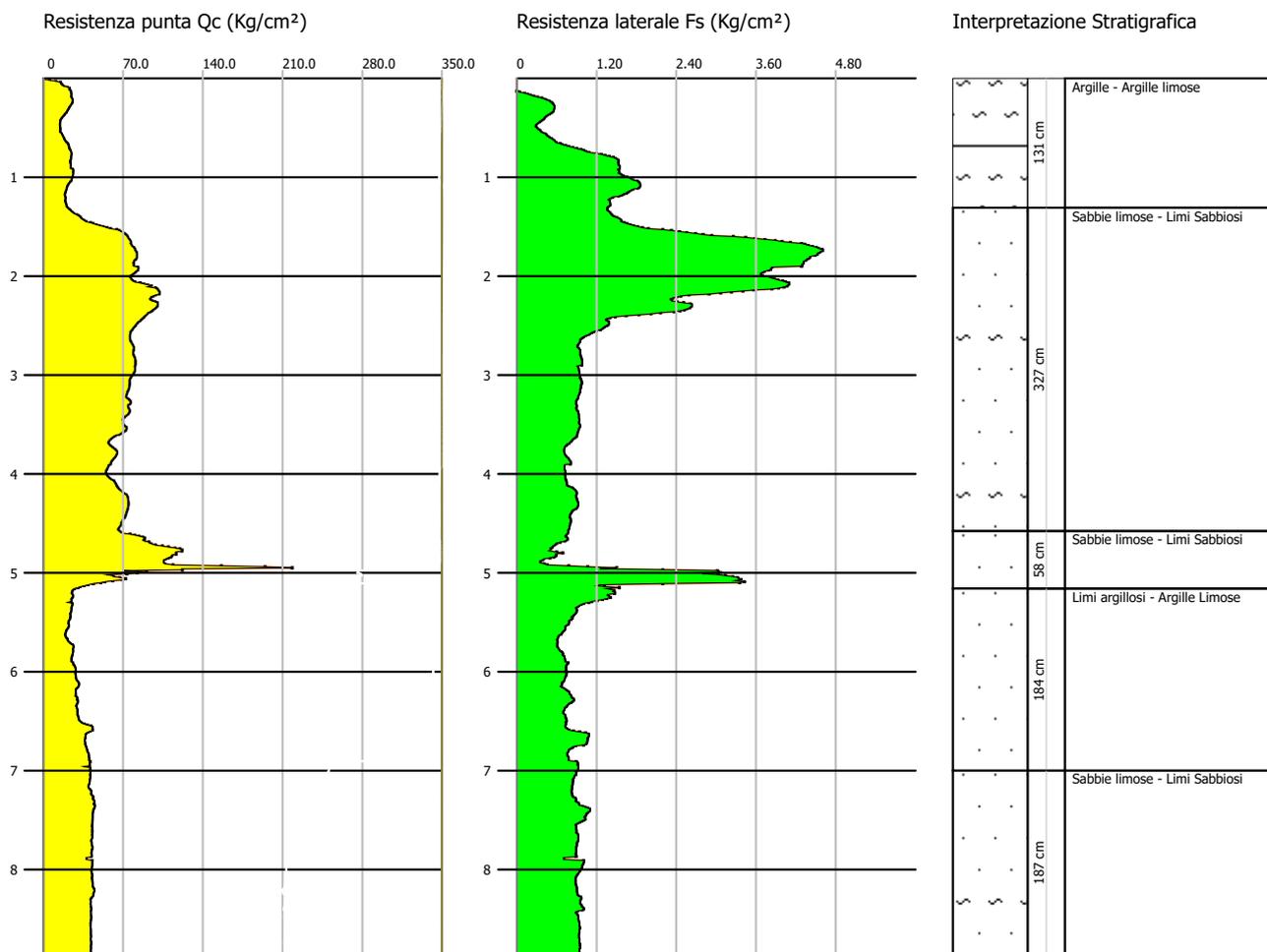
Coefficiente di consolidazione

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Coefficiente di consolidazione (cm ² /s) |
|------------------|--------------------------|--------------------------|-----------------------|---|
| 0.34 | 103.378 | 73.222 | Piacentini-Righi 1988 | 3.10134E-06 |
| 1.00 | 21.134 | 16.178 | Piacentini-Righi 1988 | 6.3402E-07 |
| 3.00 | 18.483 | 15.147 | Piacentini-Righi 1988 | 5.5449E-07 |
| 4.00 | 19.496 | 18.204 | Piacentini-Righi 1988 | 5.8488E-07 |
| 6.00 | 25.228 | 21.797 | Piacentini-Righi 1988 | 7.568401E-07 |
| 7.50 | 25.006 | 21.816 | Piacentini-Righi 1988 | 7.5018E-07 |
| 8.79 | 33.066 | 27.956 | Piacentini-Righi 1988 | 9.919801E-07 |

Probe CPTU - Piezocone Nr.6
Strumento utilizzato PAGANI 200 kN (CPTU)

Committente: Comune di Livorno
 Cantiere: Cisternino di Pian di Rota - Livorno
 Località: Cisternino di Pian di Rota - Livorno

Data: 08/01/2019



Prova n. 6

PROVA CPTU6_MS2

Committente: Comune di Livorno
 Strumento utilizzato: PAGANI 200 kN (CPTU)
 Prova eseguita in data: 08/01/2019
 Profondità prova: 8.87 mt
 Località: Cisternino di Pian di Rota - Livorno

RESISTENZE / LITOLOGIE

Profondità
 qc Resistenza punta (Kg/cm²);
 fs Resistenza laterale (Kg/cm²);
 Tilt Inclinazione (°)
 Temp Temperatura (°)
 Fr fs/qcx100 (Schmertmann)
 qcn qc normalizzata (Kg/cm²);
 fsn fs normalizzato (Kg/cm²);
 U2 Pressione neutrale intorno al cono (Kg/cm²);
 Uo Pressione neutrale rilevata (Kg/cm²);
 Fc Contenuto in materiale fine(%)

| Profondità | qc | fs | U2 | Tilt | Temp | qc/fs | Fr | Uo | qcn | fsn | FC% |
|------------|--------|-----|-------|------|------|-------|-----|-----|--------|-----|--------|
| 0.01 | 1.02 | 0.0 | 0.01 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.02 | 0.0 | 394.28 |
| 0.02 | 5.098 | 0.0 | 0.00 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 4.098 | 0.0 | 65.98 |
| 0.03 | 10.809 | 0.0 | 0.00 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 9.809 | 0.0 | 43.86 |
| 0.04 | 14.99 | 0.0 | 0.00 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 13.99 | 0.0 | 36.59 |
| 0.05 | 14.786 | 0.0 | 0.00 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 13.786 | 0.0 | 36.87 |
| 0.06 | 15.397 | 0.0 | 0.00 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 14.397 | 0.0 | 36.04 |
| 0.07 | 16.315 | 0.0 | -0.01 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 15.315 | 0.0 | 34.88 |
| 0.08 | 17.743 | 0.0 | -0.03 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 16.743 | 0.0 | 33.25 |
| 0.09 | 20.904 | 0.0 | 0.00 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 19.904 | 0.0 | 30.25 |
| 0.10 | 22.841 | 0.0 | 0.00 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 21.841 | 0.0 | 28.72 |
| 0.11 | 22.229 | 0.0 | -0.02 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 21.229 | 0.0 | 29.19 |
| 0.12 | 22.841 | 0.0 | -0.01 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 21.841 | 0.0 | 28.72 |
| 0.13 | 23.555 | 0.0 | -0.07 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 22.555 | 0.0 | 28.21 |

Prova n. 6

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|-------|
| 0.14 | 23.861 | 0.041 | -0.06 | 0.7 | 0.0 | 581.976 | 0.172 | 0.0 | 22.861 | 0.172 | 17.66 |
| 0.15 | 23.861 | 0.112 | -0.05 | 0.7 | 0.0 | 213.045 | 0.469 | 0.0 | 22.861 | 0.47 | 22.21 |
| 0.16 | 24.065 | 0.163 | -0.08 | 0.7 | 0.0 | 147.638 | 0.677 | 0.0 | 23.065 | 0.678 | 24.61 |
| 0.17 | 23.963 | 0.204 | -0.08 | 0.7 | 0.0 | 117.466 | 0.851 | 0.0 | 22.963 | 0.853 | 26.51 |
| 0.18 | 23.861 | 0.255 | -0.04 | 0.7 | 0.0 | 93.573 | 1.069 | 0.0 | 22.861 | 1.07 | 28.63 |
| 0.19 | 23.963 | 0.316 | -0.02 | 0.7 | 0.0 | 75.832 | 1.319 | 0.0 | 22.963 | 1.321 | 30.64 |
| 0.20 | 24.473 | 0.377 | -0.01 | 0.8 | 0.0 | 64.915 | 1.54 | 0.0 | 23.473 | 1.543 | 31.95 |
| 0.21 | 25.085 | 0.418 | -0.04 | 0.8 | 0.0 | 60.012 | 1.666 | 0.0 | 24.085 | 1.669 | 32.41 |
| 0.22 | 25.289 | 0.449 | -0.06 | 0.8 | 0.0 | 56.323 | 1.775 | 0.0 | 24.289 | 1.779 | 33.01 |
| 0.23 | 25.187 | 0.489 | -0.07 | 0.7 | 0.0 | 51.507 | 1.941 | 0.0 | 24.187 | 1.945 | 34.14 |
| 0.24 | 24.983 | 0.51 | -0.05 | 0.8 | 0.0 | 48.986 | 2.041 | 0.0 | 23.983 | 2.045 | 34.91 |
| 0.25 | 24.677 | 0.53 | -0.05 | 0.8 | 0.0 | 46.56 | 2.148 | 0.0 | 23.677 | 2.152 | 35.76 |
| 0.26 | 24.065 | 0.54 | -0.03 | 0.8 | 0.0 | 44.565 | 2.244 | 0.0 | 23.065 | 2.249 | 36.78 |
| 0.27 | 23.453 | 0.551 | -0.01 | 0.8 | 0.0 | 42.564 | 2.349 | 0.0 | 22.453 | 2.355 | 37.86 |
| 0.28 | 22.841 | 0.561 | -0.01 | 0.8 | 0.0 | 40.715 | 2.456 | 0.0 | 21.841 | 2.462 | 38.95 |
| 0.29 | 22.229 | 0.561 | -0.01 | 0.8 | 0.0 | 39.624 | 2.524 | 0.0 | 21.229 | 2.53 | 39.84 |
| 0.30 | 21.822 | 0.561 | 0.00 | 0.8 | 0.0 | 38.898 | 2.571 | 0.0 | 20.822 | 2.578 | 40.45 |
| 0.31 | 21.414 | 0.551 | 0.00 | 0.8 | 0.0 | 38.864 | 2.573 | 0.0 | 20.414 | 2.581 | 40.83 |
| 0.32 | 20.802 | 0.551 | 0.00 | 0.8 | 0.0 | 37.753 | 2.649 | 0.0 | 19.802 | 2.657 | 41.81 |
| 0.33 | 20.292 | 0.551 | 0.00 | 0.8 | 0.0 | 36.828 | 2.715 | 0.0 | 19.292 | 2.724 | 42.66 |
| 0.34 | 19.986 | 0.53 | 0.01 | 0.8 | 0.0 | 37.709 | 2.652 | 0.0 | 18.986 | 2.661 | 42.63 |
| 0.35 | 18.966 | 0.51 | 0.01 | 0.8 | 0.0 | 37.188 | 2.689 | 0.0 | 17.966 | 2.699 | 43.9 |
| 0.36 | 18.253 | 0.489 | 0.02 | 0.8 | 0.0 | 37.327 | 2.679 | 0.0 | 17.253 | 2.69 | 44.65 |
| 0.37 | 17.641 | 0.459 | 0.02 | 0.8 | 0.0 | 38.434 | 2.602 | 0.0 | 16.641 | 2.613 | 44.94 |
| 0.38 | 16.825 | 0.438 | 0.02 | 0.8 | 0.0 | 38.413 | 2.603 | 0.0 | 15.825 | 2.615 | 45.97 |
| 0.39 | 16.111 | 0.418 | 0.03 | 0.8 | 0.0 | 38.543 | 2.595 | 0.0 | 15.111 | 2.607 | 46.87 |
| 0.40 | 15.499 | 0.408 | 0.03 | 0.8 | 0.0 | 37.988 | 2.632 | 0.0 | 14.499 | 2.646 | 47.95 |
| 0.41 | 14.786 | 0.398 | 0.04 | 0.8 | 0.0 | 37.151 | 2.692 | 0.0 | 13.786 | 2.707 | 49.35 |
| 0.42 | 14.378 | 0.377 | 0.04 | 0.8 | 0.0 | 38.138 | 2.622 | 0.0 | 13.378 | 2.637 | 49.61 |
| 0.43 | 14.276 | 0.357 | 0.05 | 0.8 | 0.0 | 39.989 | 2.501 | 0.0 | 13.276 | 2.516 | 49.06 |
| 0.44 | 14.276 | 0.337 | 0.05 | 0.8 | 0.0 | 42.362 | 2.361 | 0.0 | 13.276 | 2.375 | 48.22 |
| 0.45 | 14.072 | 0.316 | 0.06 | 0.8 | 0.0 | 44.532 | 2.246 | 0.0 | 13.072 | 2.26 | 47.84 |
| 0.46 | 14.072 | 0.296 | 0.06 | 0.8 | 0.0 | 47.541 | 2.103 | 0.0 | 13.072 | 2.117 | 46.91 |
| 0.47 | 13.97 | 0.286 | 0.06 | 0.8 | 0.0 | 48.846 | 2.047 | 0.0 | 12.97 | 2.061 | 46.71 |
| 0.48 | 14.072 | 0.275 | 0.06 | 0.8 | 0.0 | 51.171 | 1.954 | 0.0 | 13.072 | 1.968 | 45.91 |
| 0.49 | 14.276 | 0.275 | 0.07 | 0.8 | 0.0 | 51.913 | 1.926 | 0.0 | 13.276 | 1.94 | 45.39 |
| 0.50 | 14.174 | 0.296 | 0.07 | 0.8 | 0.0 | 47.885 | 2.088 | 0.0 | 13.174 | 2.103 | 46.66 |
| 0.51 | 14.378 | 0.306 | 0.08 | 0.8 | 0.0 | 46.987 | 2.128 | 0.0 | 13.378 | 2.143 | 46.6 |
| 0.52 | 14.378 | 0.326 | 0.08 | 0.8 | 0.0 | 44.104 | 2.267 | 0.0 | 13.378 | 2.284 | 47.49 |
| 0.53 | 14.072 | 0.347 | 0.10 | 0.8 | 0.0 | 40.553 | 2.466 | 0.0 | 13.072 | 2.484 | 49.21 |
| 0.54 | 14.072 | 0.357 | 0.10 | 0.8 | 0.0 | 39.417 | 2.537 | 0.0 | 13.072 | 2.556 | 49.64 |
| 0.55 | 14.582 | 0.377 | 0.11 | 0.8 | 0.0 | 38.679 | 2.585 | 0.0 | 13.582 | 2.605 | 49.09 |
| 0.56 | 15.601 | 0.418 | 0.13 | 0.8 | 0.0 | 37.323 | 2.679 | 0.0 | 14.601 | 2.698 | 48.09 |
| 0.57 | 15.907 | 0.438 | 0.14 | 0.8 | 0.0 | 36.317 | 2.754 | 0.0 | 14.907 | 2.773 | 48.07 |
| 0.58 | 16.519 | 0.449 | 0.14 | 0.8 | 0.0 | 36.791 | 2.718 | 0.0 | 15.519 | 2.737 | 47.04 |
| 0.59 | 16.723 | 0.469 | 0.14 | 0.8 | 0.0 | 35.657 | 2.805 | 0.0 | 15.723 | 2.824 | 47.24 |
| 0.60 | 17.335 | 0.489 | 0.15 | 0.8 | 0.0 | 35.45 | 2.821 | 0.0 | 16.335 | 2.84 | 46.55 |
| 0.61 | 17.743 | 0.52 | 0.15 | 0.8 | 0.0 | 34.121 | 2.931 | 0.0 | 16.743 | 2.951 | 46.63 |
| 0.62 | 17.947 | 0.54 | 0.15 | 0.8 | 0.0 | 33.235 | 3.009 | 0.0 | 16.947 | 3.03 | 46.78 |
| 0.63 | 18.457 | 0.561 | 0.16 | 0.9 | 0.0 | 32.9 | 3.039 | 0.0 | 17.457 | 3.06 | 46.34 |
| 0.64 | 19.17 | 0.571 | 0.16 | 0.9 | 0.0 | 33.573 | 2.979 | 0.0 | 18.17 | 2.998 | 45.24 |
| 0.65 | 19.986 | 0.591 | 0.16 | 0.9 | 0.0 | 33.817 | 2.957 | 0.0 | 18.986 | 2.976 | 44.27 |
| 0.66 | 21.006 | 0.653 | 0.16 | 0.9 | 0.0 | 32.168 | 3.109 | 0.0 | 20.006 | 3.128 | 44.01 |
| 0.67 | 21.312 | 0.683 | 0.16 | 0.9 | 0.0 | 31.204 | 3.205 | 0.0 | 20.312 | 3.225 | 44.18 |
| 0.68 | 21.618 | 0.734 | 0.16 | 0.9 | 0.0 | 29.452 | 3.395 | 0.0 | 20.618 | 3.417 | 44.79 |
| 0.69 | 21.924 | 0.785 | 0.16 | 0.9 | 0.0 | 27.929 | 3.581 | 0.0 | 20.924 | 3.603 | 45.34 |
| 0.70 | 22.127 | 0.846 | 0.16 | 0.9 | 0.0 | 26.155 | 3.823 | 0.0 | 21.127 | 3.847 | 46.2 |
| 0.71 | 22.229 | 0.908 | 0.16 | 0.9 | 0.0 | 24.481 | 4.085 | 0.0 | 21.229 | 4.111 | 47.19 |
| 0.72 | 22.739 | 0.969 | 0.16 | 0.9 | 0.0 | 23.466 | 4.261 | 0.0 | 21.739 | 4.288 | 47.44 |
| 0.73 | 23.249 | 1.01 | 0.16 | 0.9 | 0.0 | 23.019 | 4.344 | 0.0 | 22.249 | 4.371 | 47.32 |
| 0.74 | 23.657 | 1.04 | 0.16 | 0.9 | 0.0 | 22.747 | 4.396 | 0.0 | 22.657 | 4.424 | 47.17 |
| 0.75 | 23.963 | 1.091 | 0.16 | 0.9 | 0.0 | 21.964 | 4.553 | 0.0 | 22.963 | 4.581 | 47.5 |
| 0.76 | 24.269 | 1.203 | 0.17 | 0.9 | 0.0 | 20.174 | 4.957 | 0.0 | 23.269 | 4.988 | 48.72 |
| 0.77 | 24.065 | 1.275 | 0.17 | 1.0 | 0.0 | 18.875 | 5.298 | 0.0 | 23.065 | 5.332 | 50.07 |
| 0.78 | 23.963 | 1.336 | 0.17 | 1.0 | 0.0 | 17.936 | 5.575 | 0.0 | 22.963 | 5.611 | 51.09 |
| 0.79 | 23.759 | 1.397 | 0.17 | 1.0 | 0.0 | 17.007 | 5.88 | 0.0 | 22.759 | 5.919 | 52.25 |

Prova n. 6

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|--------|-------|-----|--------|-------|-------|
| 0.80 | 23.657 | 1.458 | 0.17 | 1.0 | 0.0 | 16.226 | 6.163 | 0.0 | 22.657 | 6.205 | 53.22 |
| 0.81 | 23.861 | 1.489 | 0.17 | 1.0 | 0.0 | 16.025 | 6.24 | 0.0 | 22.861 | 6.283 | 53.28 |
| 0.82 | 23.453 | 1.509 | 0.17 | 1.0 | 0.0 | 15.542 | 6.434 | 0.0 | 22.453 | 6.479 | 54.23 |
| 0.83 | 23.045 | 1.53 | 0.17 | 1.0 | 0.0 | 15.062 | 6.639 | 0.0 | 22.045 | 6.687 | 55.21 |
| 0.84 | 22.943 | 1.53 | 0.17 | 1.0 | 0.0 | 14.995 | 6.669 | 0.0 | 21.943 | 6.717 | 55.4 |
| 0.85 | 23.045 | 1.519 | 0.17 | 1.0 | 0.0 | 15.171 | 6.591 | 0.0 | 22.045 | 6.64 | 55.08 |
| 0.86 | 23.351 | 1.53 | 0.18 | 1.0 | 0.0 | 15.262 | 6.552 | 0.0 | 22.351 | 6.6 | 54.68 |
| 0.87 | 23.453 | 1.53 | 0.18 | 1.0 | 0.0 | 15.329 | 6.524 | 0.0 | 22.453 | 6.572 | 54.51 |
| 0.88 | 23.555 | 1.53 | 0.18 | 1.0 | 0.0 | 15.395 | 6.495 | 0.0 | 22.555 | 6.544 | 54.33 |
| 0.89 | 23.453 | 1.55 | 0.18 | 1.0 | 0.0 | 15.131 | 6.609 | 0.0 | 22.453 | 6.659 | 54.76 |
| 0.90 | 23.453 | 1.55 | 0.18 | 1.0 | 0.0 | 15.131 | 6.609 | 0.0 | 22.453 | 6.66 | 54.76 |
| 0.91 | 23.453 | 1.55 | 0.18 | 1.0 | 0.0 | 15.131 | 6.609 | 0.0 | 22.453 | 6.66 | 54.77 |
| 0.92 | 25.391 | 1.519 | 0.24 | 1.0 | 0.0 | 16.716 | 5.982 | 0.0 | 24.391 | 6.026 | 51.22 |
| 0.93 | 25.798 | 1.53 | 0.24 | 1.0 | 0.0 | 16.861 | 5.931 | 0.0 | 24.798 | 5.973 | 50.74 |
| 0.94 | 25.696 | 1.54 | 0.24 | 1.0 | 0.0 | 16.686 | 5.993 | 0.0 | 24.696 | 6.037 | 51.02 |
| 0.95 | 25.492 | 1.54 | 0.25 | 1.1 | 0.0 | 16.553 | 6.041 | 0.0 | 24.492 | 6.086 | 51.33 |
| 0.96 | 25.594 | 1.53 | 0.25 | 1.1 | 0.0 | 16.728 | 5.978 | 0.0 | 24.594 | 6.023 | 51.05 |
| 0.97 | 25.594 | 1.56 | 0.25 | 1.1 | 0.0 | 16.406 | 6.095 | 0.0 | 24.594 | 6.141 | 51.42 |
| 0.98 | 25.391 | 1.581 | 0.25 | 1.1 | 0.0 | 16.06 | 6.227 | 0.0 | 24.391 | 6.275 | 51.98 |
| 0.99 | 25.289 | 1.611 | 0.25 | 1.1 | 0.0 | 15.698 | 6.37 | 0.0 | 24.289 | 6.42 | 52.5 |
| 1.00 | 24.779 | 1.662 | 0.25 | 1.1 | 0.0 | 14.909 | 6.707 | 0.0 | 23.779 | 6.761 | 53.91 |
| 1.01 | 24.473 | 1.703 | 0.25 | 1.1 | 0.0 | 14.371 | 6.959 | 0.0 | 23.473 | 7.016 | 54.89 |
| 1.02 | 24.269 | 1.723 | 0.25 | 1.1 | 0.0 | 14.085 | 7.1 | 0.0 | 23.269 | 7.159 | 55.47 |
| 1.03 | 24.269 | 1.754 | 0.25 | 1.1 | 0.0 | 13.836 | 7.227 | 0.0 | 23.269 | 7.289 | 55.82 |
| 1.04 | 23.249 | 1.815 | 0.25 | 1.1 | 0.0 | 12.809 | 7.807 | 0.0 | 22.249 | 7.877 | 58.31 |
| 1.05 | 22.637 | 1.835 | 0.25 | 1.1 | 0.0 | 12.336 | 8.106 | 0.0 | 21.637 | 8.182 | 59.68 |
| 1.06 | 21.924 | 1.846 | 0.25 | 1.1 | 0.0 | 11.876 | 8.42 | 0.0 | 20.924 | 8.502 | 61.2 |
| 1.07 | 21.414 | 1.856 | 0.22 | 1.1 | 0.0 | 11.538 | 8.667 | 0.0 | 20.414 | 8.754 | 62.36 |
| 1.08 | 20.598 | 1.856 | -0.13 | 1.1 | 0.0 | 11.098 | 9.011 | 0.0 | 19.598 | 9.105 | 64.1 |
| 1.09 | 20.394 | 1.856 | -0.15 | 1.1 | 0.0 | 10.988 | 9.101 | 0.0 | 19.394 | 9.198 | 64.56 |
| 1.10 | 20.088 | 1.846 | -0.17 | 1.1 | 0.0 | 10.882 | 9.19 | 0.0 | 19.088 | 9.291 | 65.13 |
| 1.11 | 19.986 | 1.825 | -0.19 | 1.1 | 0.0 | 10.951 | 9.131 | 0.0 | 18.986 | 9.233 | 65.11 |
| 1.12 | 19.782 | 1.754 | -0.20 | 1.1 | 0.0 | 11.278 | 8.867 | 0.0 | 18.782 | 8.967 | 64.71 |
| 1.13 | 19.476 | 1.723 | -0.21 | 1.1 | 0.0 | 11.304 | 8.847 | 0.0 | 18.476 | 8.95 | 65.03 |
| 1.14 | 19.17 | 1.693 | -0.22 | 1.1 | 0.0 | 11.323 | 8.832 | 0.0 | 18.17 | 8.937 | 65.37 |
| 1.15 | 18.864 | 1.672 | -0.25 | 1.1 | 0.0 | 11.282 | 8.863 | 0.0 | 17.864 | 8.972 | 65.84 |
| 1.16 | 18.559 | 1.652 | -0.25 | 1.1 | 0.0 | 11.234 | 8.901 | 0.0 | 17.559 | 9.013 | 66.33 |
| 1.17 | 18.355 | 1.611 | -0.25 | 1.1 | 0.0 | 11.394 | 8.777 | 0.0 | 17.355 | 8.889 | 66.29 |
| 1.18 | 18.355 | 1.581 | -0.26 | 1.1 | 0.0 | 11.61 | 8.613 | 0.0 | 17.355 | 8.725 | 65.88 |
| 1.19 | 18.457 | 1.54 | -0.26 | 1.1 | 0.0 | 11.985 | 8.344 | 0.0 | 17.457 | 8.452 | 65.05 |
| 1.20 | 18.864 | 1.448 | -0.26 | 1.1 | 0.0 | 13.028 | 7.676 | 0.0 | 17.864 | 7.774 | 62.74 |
| 1.21 | 18.864 | 1.417 | -0.28 | 1.1 | 0.0 | 13.313 | 7.512 | 0.0 | 17.864 | 7.608 | 62.29 |
| 1.22 | 18.966 | 1.387 | -0.30 | 1.2 | 0.0 | 13.674 | 7.313 | 0.0 | 17.966 | 7.408 | 61.61 |
| 1.23 | 18.559 | 1.377 | -0.32 | 1.2 | 0.0 | 13.478 | 7.42 | 0.0 | 17.559 | 7.518 | 62.42 |
| 1.24 | 18.457 | 1.397 | -0.33 | 1.2 | 0.0 | 13.212 | 7.569 | 0.0 | 17.457 | 7.671 | 62.97 |
| 1.25 | 18.762 | 1.397 | -0.33 | 1.2 | 0.0 | 13.43 | 7.446 | 0.0 | 17.762 | 7.546 | 62.24 |
| 1.26 | 19.068 | 1.397 | -0.33 | 1.2 | 0.0 | 13.649 | 7.326 | 0.0 | 18.068 | 7.424 | 61.53 |
| 1.27 | 19.374 | 1.407 | -0.34 | 1.2 | 0.0 | 13.77 | 7.262 | 0.0 | 18.374 | 7.358 | 60.97 |
| 1.28 | 19.68 | 1.407 | -0.34 | 1.2 | 0.0 | 13.987 | 7.149 | 0.0 | 18.68 | 7.243 | 60.29 |
| 1.29 | 19.884 | 1.387 | -0.34 | 1.2 | 0.0 | 14.336 | 6.975 | 0.0 | 18.884 | 7.066 | 59.55 |
| 1.30 | 19.884 | 1.366 | -0.34 | 1.2 | 0.0 | 14.556 | 6.87 | 0.0 | 18.884 | 6.96 | 59.24 |
| 1.31 | 20.904 | 1.356 | -0.35 | 1.2 | 0.0 | 15.416 | 6.487 | 0.0 | 19.904 | 6.568 | 56.97 |
| 1.32 | 21.72 | 1.356 | -0.35 | 1.2 | 0.0 | 16.018 | 6.243 | 0.0 | 20.72 | 6.319 | 55.38 |
| 1.33 | 22.739 | 1.356 | -0.35 | 1.2 | 0.0 | 16.769 | 5.963 | 0.0 | 21.739 | 6.033 | 53.52 |
| 1.34 | 23.657 | 1.366 | -0.35 | 1.2 | 0.0 | 17.318 | 5.774 | 0.0 | 22.657 | 5.84 | 52.08 |
| 1.35 | 24.575 | 1.387 | -0.36 | 1.2 | 0.0 | 17.718 | 5.644 | 0.0 | 23.575 | 5.706 | 50.88 |
| 1.36 | 25.696 | 1.407 | -0.36 | 1.2 | 0.0 | 18.263 | 5.476 | 0.0 | 24.696 | 5.534 | 49.43 |
| 1.37 | 26.818 | 1.407 | -0.36 | 1.2 | 0.0 | 19.06 | 5.246 | 0.0 | 25.818 | 5.3 | 47.82 |
| 1.38 | 29.265 | 1.428 | -0.37 | 1.2 | 0.0 | 20.494 | 4.88 | 0.0 | 28.265 | 4.926 | 44.89 |
| 1.39 | 30.591 | 1.438 | -0.37 | 1.2 | 0.0 | 21.273 | 4.701 | 0.0 | 29.591 | 4.743 | 43.45 |
| 1.40 | 31.713 | 1.468 | -0.37 | 1.2 | 0.0 | 21.603 | 4.629 | 0.0 | 30.713 | 4.67 | 42.54 |
| 1.41 | 32.528 | 1.509 | -0.36 | 1.2 | 0.0 | 21.556 | 4.639 | 0.0 | 31.528 | 4.679 | 42.13 |
| 1.42 | 33.14 | 1.54 | -0.36 | 1.2 | 0.0 | 21.519 | 4.647 | 0.0 | 32.14 | 4.687 | 41.83 |
| 1.43 | 34.466 | 1.56 | -0.35 | 1.2 | 0.0 | 22.094 | 4.526 | 0.0 | 33.466 | 4.564 | 40.71 |
| 1.44 | 35.791 | 1.57 | -0.34 | 1.2 | 0.0 | 22.797 | 4.387 | 0.0 | 34.791 | 4.422 | 39.57 |
| 1.45 | 37.423 | 1.57 | -0.33 | 1.2 | 0.0 | 23.836 | 4.195 | 0.0 | 36.423 | 4.228 | 38.13 |

Prova n. 6

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|--------|-------|-----|--------|-------|-------|
| 1.46 | 41.298 | 1.621 | -0.30 | 1.2 | 0.0 | 25.477 | 3.925 | 0.0 | 40.298 | 3.953 | 35.53 |
| 1.47 | 43.745 | 1.662 | -0.30 | 1.2 | 0.0 | 26.321 | 3.799 | 0.0 | 42.745 | 3.825 | 34.16 |
| 1.48 | 46.396 | 1.713 | -0.29 | 1.2 | 0.0 | 27.085 | 3.692 | 0.0 | 45.396 | 3.716 | 32.86 |
| 1.49 | 49.252 | 1.764 | -0.28 | 1.2 | 0.0 | 27.921 | 3.582 | 0.0 | 48.252 | 3.603 | 31.56 |
| 1.50 | 52.617 | 1.825 | -0.28 | 1.2 | 0.0 | 28.831 | 3.468 | 0.0 | 51.617 | 3.488 | 30.19 |
| 1.51 | 55.778 | 1.897 | -0.26 | 1.2 | 0.0 | 29.403 | 3.401 | 0.0 | 54.778 | 3.419 | 29.12 |
| 1.52 | 58.837 | 1.988 | -0.26 | 1.2 | 0.0 | 29.596 | 3.379 | 0.0 | 57.837 | 3.396 | 28.32 |
| 1.53 | 64.445 | 2.203 | -0.25 | 1.2 | 0.0 | 29.253 | 3.418 | 0.0 | 63.445 | 3.435 | 27.3 |
| 1.54 | 66.586 | 2.335 | -0.25 | 1.2 | 0.0 | 28.516 | 3.507 | 0.0 | 65.586 | 3.523 | 27.22 |
| 1.55 | 67.912 | 2.457 | -0.24 | 1.2 | 0.0 | 27.64 | 3.618 | 0.0 | 66.912 | 3.634 | 27.39 |
| 1.56 | 69.747 | 2.57 | -0.24 | 1.2 | 0.0 | 27.139 | 3.685 | 0.0 | 68.747 | 3.701 | 27.3 |
| 1.57 | 70.869 | 2.702 | -0.24 | 1.1 | 0.0 | 26.228 | 3.813 | 0.0 | 69.869 | 3.83 | 27.56 |
| 1.58 | 71.889 | 2.814 | -0.24 | 1.1 | 0.0 | 25.547 | 3.914 | 0.0 | 70.889 | 3.932 | 27.74 |
| 1.59 | 72.807 | 2.947 | -0.24 | 1.1 | 0.0 | 24.705 | 4.048 | 0.0 | 71.807 | 4.065 | 28.04 |
| 1.60 | 73.52 | 3.273 | -0.24 | 1.1 | 0.0 | 22.463 | 4.452 | 0.0 | 72.52 | 4.471 | 29.26 |
| 1.61 | 73.928 | 3.457 | -0.24 | 1.1 | 0.0 | 21.385 | 4.676 | 0.0 | 72.928 | 4.697 | 29.9 |
| 1.62 | 74.336 | 3.6 | -0.22 | 1.1 | 0.0 | 20.649 | 4.843 | 0.0 | 73.336 | 4.864 | 30.34 |
| 1.63 | 74.948 | 3.752 | -0.22 | 1.1 | 0.0 | 19.975 | 5.006 | 0.0 | 73.948 | 5.028 | 30.73 |
| 1.64 | 75.662 | 3.905 | -0.22 | 1.1 | 0.0 | 19.376 | 5.161 | 0.0 | 74.662 | 5.184 | 31.07 |
| 1.65 | 76.274 | 4.007 | -0.22 | 1.1 | 0.0 | 19.035 | 5.253 | 0.0 | 75.274 | 5.276 | 31.23 |
| 1.66 | 76.376 | 4.13 | -0.22 | 1.1 | 0.0 | 18.493 | 5.407 | 0.0 | 75.376 | 5.431 | 31.66 |
| 1.67 | 75.968 | 4.303 | -0.22 | 1.1 | 0.0 | 17.655 | 5.664 | 0.0 | 74.968 | 5.689 | 32.45 |
| 1.68 | 76.579 | 4.354 | -0.22 | 1.1 | 0.0 | 17.588 | 5.686 | 0.0 | 75.579 | 5.711 | 32.4 |
| 1.69 | 77.089 | 4.405 | -0.22 | 1.1 | 0.0 | 17.5 | 5.714 | 0.0 | 76.089 | 5.739 | 32.4 |
| 1.70 | 77.599 | 4.466 | -0.21 | 1.1 | 0.0 | 17.376 | 5.755 | 0.0 | 76.599 | 5.781 | 32.42 |
| 1.71 | 78.823 | 4.527 | -0.21 | 1.1 | 0.0 | 17.412 | 5.743 | 0.0 | 77.823 | 5.768 | 32.19 |
| 1.72 | 79.639 | 4.558 | -0.21 | 1.1 | 0.0 | 17.472 | 5.723 | 0.0 | 78.639 | 5.748 | 32.01 |
| 1.73 | 80.046 | 4.609 | -0.21 | 1.1 | 0.0 | 17.367 | 5.758 | 0.0 | 79.046 | 5.783 | 32.04 |
| 1.74 | 80.25 | 4.619 | -0.21 | 1.1 | 0.0 | 17.374 | 5.756 | 0.0 | 79.25 | 5.781 | 32 |
| 1.75 | 80.658 | 4.589 | -0.21 | 1.1 | 0.0 | 17.576 | 5.689 | 0.0 | 79.658 | 5.714 | 31.76 |
| 1.76 | 81.372 | 4.568 | -0.21 | 1.1 | 0.0 | 17.813 | 5.614 | 0.0 | 80.372 | 5.638 | 31.44 |
| 1.77 | 81.474 | 4.538 | -0.21 | 1.1 | 0.0 | 17.954 | 5.57 | 0.0 | 80.474 | 5.594 | 31.3 |
| 1.78 | 81.474 | 4.538 | -0.20 | 1.1 | 0.0 | 17.954 | 5.57 | 0.0 | 80.474 | 5.595 | 31.3 |
| 1.79 | 81.678 | 4.507 | -0.20 | 1.1 | 0.0 | 18.122 | 5.518 | 0.0 | 80.678 | 5.543 | 31.13 |
| 1.80 | 81.576 | 4.425 | -0.20 | 1.1 | 0.0 | 18.435 | 5.424 | 0.0 | 80.576 | 5.449 | 30.88 |
| 1.81 | 81.474 | 4.425 | -0.20 | 1.1 | 0.0 | 18.412 | 5.431 | 0.0 | 80.474 | 5.456 | 30.92 |
| 1.82 | 81.27 | 4.405 | -0.20 | 1.1 | 0.0 | 18.449 | 5.42 | 0.0 | 80.27 | 5.445 | 30.92 |
| 1.83 | 80.556 | 4.375 | -0.20 | 1.1 | 0.0 | 18.413 | 5.431 | 0.0 | 79.556 | 5.456 | 31.06 |
| 1.84 | 79.435 | 4.364 | -0.20 | 1.1 | 0.0 | 18.202 | 5.494 | 0.0 | 78.435 | 5.52 | 31.41 |
| 1.85 | 79.027 | 4.324 | -0.19 | 1.0 | 0.0 | 18.276 | 5.472 | 0.0 | 78.027 | 5.498 | 31.42 |
| 1.86 | 78.619 | 4.324 | -0.19 | 1.1 | 0.0 | 18.182 | 5.5 | 0.0 | 77.619 | 5.526 | 31.56 |
| 1.87 | 78.619 | 4.324 | -0.19 | 1.1 | 0.0 | 18.182 | 5.5 | 0.0 | 77.619 | 5.527 | 31.56 |
| 1.88 | 78.925 | 4.303 | -0.19 | 1.1 | 0.0 | 18.342 | 5.452 | 0.0 | 77.925 | 5.479 | 31.38 |
| 1.89 | 78.925 | 4.303 | -0.19 | 1.1 | 0.0 | 18.342 | 5.452 | 0.0 | 77.925 | 5.479 | 31.38 |
| 1.90 | 78.925 | 4.303 | -0.19 | 1.1 | 0.0 | 18.342 | 5.452 | 0.0 | 77.925 | 5.479 | 31.38 |
| 1.91 | 82.698 | 3.854 | -0.15 | 1.0 | 0.0 | 21.458 | 4.66 | 0.0 | 81.698 | 4.682 | 28.48 |
| 1.92 | 82.902 | 3.834 | -0.15 | 1.0 | 0.0 | 21.623 | 4.625 | 0.0 | 81.902 | 4.647 | 28.34 |
| 1.93 | 82.698 | 3.834 | -0.15 | 1.0 | 0.0 | 21.57 | 4.636 | 0.0 | 81.698 | 4.658 | 28.41 |
| 1.94 | 82.494 | 3.803 | -0.15 | 1.0 | 0.0 | 21.692 | 4.61 | 0.0 | 81.494 | 4.632 | 28.36 |
| 1.95 | 81.168 | 3.742 | -0.15 | 1.0 | 0.0 | 21.691 | 4.61 | 0.0 | 80.168 | 4.633 | 28.55 |
| 1.96 | 80.25 | 3.712 | -0.15 | 1.0 | 0.0 | 21.619 | 4.626 | 0.0 | 79.25 | 4.649 | 28.74 |
| 1.97 | 79.027 | 3.681 | -0.15 | 1.0 | 0.0 | 21.469 | 4.658 | 0.0 | 78.027 | 4.682 | 29.03 |
| 1.98 | 77.803 | 3.681 | -0.15 | 1.0 | 0.0 | 21.136 | 4.731 | 0.0 | 76.803 | 4.756 | 29.44 |
| 1.99 | 76.376 | 3.681 | -0.15 | 1.0 | 0.0 | 20.749 | 4.82 | 0.0 | 75.376 | 4.845 | 29.95 |
| 2.00 | 75.05 | 3.712 | -0.15 | 1.0 | 0.0 | 20.218 | 4.946 | 0.0 | 74.05 | 4.973 | 30.55 |
| 2.01 | 75.356 | 3.803 | -0.15 | 1.0 | 0.0 | 19.815 | 5.047 | 0.0 | 74.356 | 5.074 | 30.8 |
| 2.02 | 75.968 | 3.844 | -0.15 | 1.0 | 0.0 | 19.763 | 5.06 | 0.0 | 74.968 | 5.088 | 30.74 |
| 2.03 | 76.579 | 3.895 | -0.15 | 1.0 | 0.0 | 19.661 | 5.086 | 0.0 | 75.579 | 5.114 | 30.71 |
| 2.04 | 77.293 | 3.946 | -0.15 | 1.0 | 0.0 | 19.588 | 5.105 | 0.0 | 76.293 | 5.133 | 30.65 |
| 2.05 | 78.517 | 4.018 | -0.15 | 1.0 | 0.0 | 19.541 | 5.117 | 0.0 | 77.517 | 5.145 | 30.49 |
| 2.06 | 80.148 | 4.058 | -0.15 | 1.0 | 0.0 | 19.751 | 5.063 | 0.0 | 79.148 | 5.09 | 30.08 |
| 2.07 | 84.941 | 4.109 | -0.14 | 1.0 | 0.0 | 20.672 | 4.837 | 0.0 | 83.941 | 4.862 | 28.7 |
| 2.08 | 88.306 | 4.109 | -0.14 | 1.0 | 0.0 | 21.491 | 4.653 | 0.0 | 87.306 | 4.676 | 27.69 |
| 2.09 | 91.671 | 4.089 | -0.14 | 1.0 | 0.0 | 22.419 | 4.461 | 0.0 | 90.671 | 4.481 | 26.67 |
| 2.10 | 94.934 | 4.079 | -0.14 | 1.0 | 0.0 | 23.274 | 4.297 | 0.0 | 93.934 | 4.316 | 25.76 |
| 2.11 | 91.263 | 4.038 | -0.14 | 1.0 | 0.0 | 22.601 | 4.425 | 0.0 | 90.263 | 4.446 | 26.61 |

Prova n. 6

| | | | | | | | | | | | |
|------|---------|-------|-------|-----|-----|--------|-------|-----|---------|-------|-------|
| 2.12 | 98.401 | 3.956 | -0.14 | 1.0 | 0.0 | 24.874 | 4.02 | 0.0 | 97.401 | 4.038 | 24.48 |
| 2.13 | 99.523 | 3.854 | -0.14 | 1.0 | 0.0 | 25.823 | 3.872 | 0.0 | 98.523 | 3.89 | 23.87 |
| 2.14 | 100.135 | 3.579 | -0.14 | 1.0 | 0.0 | 27.978 | 3.574 | 0.0 | 99.135 | 3.59 | 22.79 |
| 2.15 | 100.746 | 3.416 | -0.13 | 1.0 | 0.0 | 29.492 | 3.391 | 0.0 | 99.746 | 3.406 | 22.07 |
| 2.16 | 101.358 | 3.243 | -0.13 | 1.0 | 0.0 | 31.254 | 3.2 | 0.0 | 100.358 | 3.214 | 21.31 |
| 2.17 | 101.664 | 3.079 | -0.13 | 1.0 | 0.0 | 33.019 | 3.029 | 0.0 | 100.664 | 3.042 | 20.64 |
| 2.18 | 101.46 | 2.906 | -0.13 | 1.0 | 0.0 | 34.914 | 2.864 | 0.0 | 100.46 | 2.877 | 20.02 |
| 2.19 | 98.299 | 2.6 | -0.13 | 1.0 | 0.0 | 37.807 | 2.645 | 0.0 | 97.299 | 2.657 | 19.45 |
| 2.20 | 96.056 | 2.478 | -0.13 | 1.0 | 0.0 | 38.764 | 2.58 | 0.0 | 95.056 | 2.592 | 19.41 |
| 2.21 | 94.22 | 2.417 | -0.13 | 1.0 | 0.0 | 38.982 | 2.565 | 0.0 | 93.22 | 2.578 | 19.55 |
| 2.22 | 93.812 | 2.356 | -0.13 | 1.0 | 0.0 | 39.818 | 2.511 | 0.0 | 92.812 | 2.524 | 19.36 |
| 2.23 | 92.997 | 2.315 | -0.13 | 1.0 | 0.0 | 40.171 | 2.489 | 0.0 | 91.997 | 2.502 | 19.36 |
| 2.24 | 93.405 | 2.315 | -0.13 | 1.0 | 0.0 | 40.348 | 2.478 | 0.0 | 92.405 | 2.491 | 19.26 |
| 2.25 | 95.342 | 2.335 | -0.13 | 1.0 | 0.0 | 40.832 | 2.449 | 0.0 | 94.342 | 2.461 | 18.93 |
| 2.26 | 97.891 | 2.417 | -0.12 | 1.0 | 0.0 | 40.501 | 2.469 | 0.0 | 96.891 | 2.481 | 18.75 |
| 2.27 | 99.829 | 2.519 | -0.12 | 1.0 | 0.0 | 39.63 | 2.523 | 0.0 | 98.829 | 2.535 | 18.79 |
| 2.28 | 99.829 | 2.621 | -0.12 | 1.0 | 0.0 | 38.088 | 2.625 | 0.0 | 98.829 | 2.638 | 19.22 |
| 2.29 | 99.931 | 2.641 | -0.12 | 1.0 | 0.0 | 37.838 | 2.643 | 0.0 | 98.931 | 2.655 | 19.28 |
| 2.30 | 99.727 | 2.641 | -0.12 | 1.0 | 0.0 | 37.761 | 2.648 | 0.0 | 98.727 | 2.661 | 19.33 |
| 2.31 | 99.115 | 2.621 | -0.12 | 1.0 | 0.0 | 37.816 | 2.644 | 0.0 | 98.115 | 2.657 | 19.37 |
| 2.32 | 97.993 | 2.61 | -0.12 | 1.0 | 0.0 | 37.545 | 2.663 | 0.0 | 96.993 | 2.677 | 19.56 |
| 2.33 | 96.973 | 2.57 | -0.12 | 1.0 | 0.0 | 37.733 | 2.65 | 0.0 | 95.973 | 2.663 | 19.62 |
| 2.34 | 95.852 | 2.529 | -0.12 | 1.0 | 0.0 | 37.901 | 2.638 | 0.0 | 94.852 | 2.652 | 19.68 |
| 2.35 | 94.628 | 2.468 | -0.12 | 1.0 | 0.0 | 38.342 | 2.608 | 0.0 | 93.628 | 2.622 | 19.69 |
| 2.36 | 93.506 | 2.376 | -0.12 | 1.0 | 0.0 | 39.354 | 2.541 | 0.0 | 92.506 | 2.554 | 19.53 |
| 2.37 | 91.569 | 2.172 | -0.12 | 1.0 | 0.0 | 42.159 | 2.372 | 0.0 | 90.569 | 2.385 | 19 |
| 2.38 | 90.651 | 2.029 | -0.11 | 1.0 | 0.0 | 44.678 | 2.238 | 0.0 | 89.651 | 2.25 | 18.5 |
| 2.39 | 89.836 | 1.846 | -0.11 | 1.0 | 0.0 | 48.665 | 2.055 | 0.0 | 88.836 | 2.066 | 17.72 |
| 2.40 | 88.918 | 1.652 | -0.11 | 1.0 | 0.0 | 53.824 | 1.858 | 0.0 | 87.918 | 1.868 | 16.85 |
| 2.41 | 88.102 | 1.489 | -0.11 | 1.0 | 0.0 | 59.169 | 1.69 | 0.0 | 87.102 | 1.7 | 16.06 |
| 2.42 | 87.184 | 1.407 | -0.11 | 1.0 | 0.0 | 61.964 | 1.614 | 0.0 | 86.184 | 1.623 | 15.74 |
| 2.43 | 86.267 | 1.356 | -0.11 | 1.0 | 0.0 | 63.619 | 1.572 | 0.0 | 85.267 | 1.581 | 15.61 |
| 2.44 | 85.247 | 1.336 | -0.11 | 1.0 | 0.0 | 63.808 | 1.567 | 0.0 | 84.247 | 1.577 | 15.7 |
| 2.45 | 84.533 | 1.346 | -0.11 | 1.0 | 0.0 | 62.803 | 1.592 | 0.0 | 83.533 | 1.602 | 15.93 |
| 2.46 | 83.004 | 1.377 | -0.11 | 1.0 | 0.0 | 60.279 | 1.659 | 0.0 | 82.004 | 1.669 | 16.48 |
| 2.47 | 82.188 | 1.387 | -0.11 | 1.0 | 0.0 | 59.256 | 1.688 | 0.0 | 81.188 | 1.698 | 16.74 |
| 2.48 | 81.474 | 1.387 | -0.11 | 1.0 | 0.0 | 58.741 | 1.702 | 0.0 | 80.474 | 1.713 | 16.9 |
| 2.49 | 80.964 | 1.377 | -0.11 | 1.0 | 0.0 | 58.797 | 1.701 | 0.0 | 79.964 | 1.712 | 16.96 |
| 2.50 | 80.148 | 1.356 | -0.11 | 1.0 | 0.0 | 59.106 | 1.692 | 0.0 | 79.148 | 1.703 | 17.02 |
| 2.51 | 79.537 | 1.326 | -0.11 | 1.0 | 0.0 | 59.983 | 1.667 | 0.0 | 78.537 | 1.678 | 16.96 |
| 2.52 | 78.619 | 1.305 | -0.11 | 1.0 | 0.0 | 60.244 | 1.66 | 0.0 | 77.619 | 1.671 | 17.04 |
| 2.53 | 78.007 | 1.285 | -0.11 | 1.0 | 0.0 | 60.706 | 1.647 | 0.0 | 77.007 | 1.658 | 17.05 |
| 2.54 | 77.599 | 1.264 | -0.10 | 1.0 | 0.0 | 61.392 | 1.629 | 0.0 | 76.599 | 1.64 | 17 |
| 2.55 | 76.477 | 1.203 | -0.10 | 1.0 | 0.0 | 63.572 | 1.573 | 0.0 | 75.477 | 1.584 | 16.83 |
| 2.56 | 76.172 | 1.162 | -0.10 | 1.0 | 0.0 | 65.552 | 1.525 | 0.0 | 75.172 | 1.536 | 16.6 |
| 2.57 | 75.968 | 1.132 | -0.10 | 1.0 | 0.0 | 67.11 | 1.49 | 0.0 | 74.968 | 1.501 | 16.42 |
| 2.58 | 75.764 | 1.101 | -0.10 | 1.0 | 0.0 | 68.814 | 1.453 | 0.0 | 74.764 | 1.464 | 16.23 |
| 2.59 | 75.56 | 1.081 | -0.10 | 1.0 | 0.0 | 69.898 | 1.431 | 0.0 | 74.56 | 1.441 | 16.12 |
| 2.60 | 75.56 | 1.04 | -0.10 | 1.0 | 0.0 | 72.654 | 1.376 | 0.0 | 74.56 | 1.386 | 15.79 |
| 2.61 | 75.458 | 1.01 | -0.10 | 1.0 | 0.0 | 74.711 | 1.338 | 0.0 | 74.458 | 1.348 | 15.56 |
| 2.62 | 75.56 | 0.989 | -0.10 | 1.0 | 0.0 | 76.4 | 1.309 | 0.0 | 74.56 | 1.318 | 15.36 |
| 2.63 | 75.56 | 0.969 | -0.10 | 1.0 | 0.0 | 77.977 | 1.282 | 0.0 | 74.56 | 1.292 | 15.2 |
| 2.64 | 75.56 | 0.948 | -0.10 | 1.0 | 0.0 | 79.705 | 1.255 | 0.0 | 74.56 | 1.264 | 15.02 |
| 2.65 | 75.764 | 0.948 | -0.10 | 1.0 | 0.0 | 79.92 | 1.251 | 0.0 | 74.764 | 1.26 | 14.97 |
| 2.66 | 76.172 | 0.948 | -0.09 | 1.0 | 0.0 | 80.35 | 1.245 | 0.0 | 75.172 | 1.254 | 14.87 |
| 2.67 | 76.681 | 0.938 | -0.09 | 1.0 | 0.0 | 81.749 | 1.223 | 0.0 | 75.681 | 1.232 | 14.67 |
| 2.68 | 77.089 | 0.928 | -0.09 | 1.0 | 0.0 | 83.07 | 1.204 | 0.0 | 76.089 | 1.213 | 14.49 |
| 2.69 | 77.599 | 0.918 | -0.09 | 1.1 | 0.0 | 84.531 | 1.183 | 0.0 | 76.599 | 1.192 | 14.29 |
| 2.70 | 78.109 | 0.908 | -0.09 | 1.0 | 0.0 | 86.023 | 1.162 | 0.0 | 77.109 | 1.171 | 14.09 |
| 2.71 | 78.415 | 0.908 | -0.09 | 1.0 | 0.0 | 86.36 | 1.158 | 0.0 | 77.415 | 1.166 | 14.02 |
| 2.72 | 79.027 | 0.908 | -0.09 | 1.0 | 0.0 | 87.034 | 1.149 | 0.0 | 78.027 | 1.157 | 13.88 |
| 2.73 | 78.823 | 0.928 | -0.09 | 1.0 | 0.0 | 84.939 | 1.177 | 0.0 | 77.823 | 1.186 | 14.1 |
| 2.74 | 78.823 | 0.938 | -0.09 | 1.0 | 0.0 | 84.033 | 1.19 | 0.0 | 77.823 | 1.199 | 14.18 |
| 2.75 | 78.619 | 0.948 | -0.09 | 1.0 | 0.0 | 82.931 | 1.206 | 0.0 | 77.619 | 1.215 | 14.31 |
| 2.76 | 78.313 | 0.948 | -0.09 | 1.0 | 0.0 | 82.609 | 1.211 | 0.0 | 77.313 | 1.22 | 14.38 |
| 2.77 | 78.313 | 0.948 | -0.09 | 1.0 | 0.0 | 82.609 | 1.211 | 0.0 | 77.313 | 1.22 | 14.38 |

Prova n. 6

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|--------|-------|-----|--------|-------|-------|
| 2.78 | 78.211 | 0.948 | -0.09 | 1.0 | 0.0 | 82.501 | 1.212 | 0.0 | 77.211 | 1.221 | 14.4 |
| 2.79 | 78.415 | 0.948 | -0.08 | 1.0 | 0.0 | 82.716 | 1.209 | 0.0 | 77.415 | 1.218 | 14.36 |
| 2.80 | 78.619 | 0.948 | -0.08 | 1.0 | 0.0 | 82.931 | 1.206 | 0.0 | 77.619 | 1.215 | 14.31 |
| 2.81 | 79.231 | 0.959 | -0.08 | 1.0 | 0.0 | 82.618 | 1.21 | 0.0 | 78.231 | 1.219 | 14.27 |
| 2.82 | 79.435 | 0.959 | -0.08 | 1.0 | 0.0 | 82.831 | 1.207 | 0.0 | 78.435 | 1.216 | 14.22 |
| 2.83 | 79.944 | 0.969 | -0.08 | 1.0 | 0.0 | 82.502 | 1.212 | 0.0 | 78.944 | 1.221 | 14.19 |
| 2.84 | 80.046 | 0.969 | -0.08 | 1.0 | 0.0 | 82.607 | 1.211 | 0.0 | 79.046 | 1.22 | 14.17 |
| 2.85 | 80.25 | 0.979 | -0.08 | 1.0 | 0.0 | 81.971 | 1.22 | 0.0 | 79.25 | 1.229 | 14.2 |
| 2.86 | 80.25 | 0.979 | -0.08 | 1.0 | 0.0 | 81.971 | 1.22 | 0.0 | 79.25 | 1.229 | 14.2 |
| 2.87 | 80.352 | 0.979 | -0.08 | 1.0 | 0.0 | 82.076 | 1.218 | 0.0 | 79.352 | 1.228 | 14.18 |
| 2.88 | 80.25 | 0.979 | -0.08 | 1.0 | 0.0 | 81.971 | 1.22 | 0.0 | 79.25 | 1.229 | 14.21 |
| 2.89 | 80.25 | 0.979 | -0.08 | 1.0 | 0.0 | 81.971 | 1.22 | 0.0 | 79.25 | 1.229 | 14.21 |
| 2.90 | 80.25 | 0.979 | -0.08 | 1.0 | 0.0 | 81.971 | 1.22 | 0.0 | 79.25 | 1.229 | 14.21 |
| 2.91 | 79.639 | 0.908 | -0.07 | 1.0 | 0.0 | 87.708 | 1.14 | 0.0 | 78.639 | 1.149 | 13.75 |
| 2.92 | 79.843 | 0.918 | -0.07 | 1.0 | 0.0 | 86.975 | 1.15 | 0.0 | 78.843 | 1.159 | 13.79 |
| 2.93 | 79.944 | 0.918 | -0.07 | 1.0 | 0.0 | 87.085 | 1.148 | 0.0 | 78.944 | 1.157 | 13.77 |
| 2.94 | 80.046 | 0.928 | -0.07 | 1.0 | 0.0 | 86.256 | 1.159 | 0.0 | 79.046 | 1.168 | 13.83 |
| 2.95 | 80.046 | 0.928 | -0.07 | 1.0 | 0.0 | 86.256 | 1.159 | 0.0 | 79.046 | 1.168 | 13.83 |
| 2.96 | 79.843 | 0.928 | -0.07 | 1.0 | 0.0 | 86.038 | 1.162 | 0.0 | 78.843 | 1.171 | 13.88 |
| 2.97 | 79.231 | 0.938 | -0.07 | 1.0 | 0.0 | 84.468 | 1.184 | 0.0 | 78.231 | 1.193 | 14.09 |
| 2.98 | 78.925 | 0.938 | -0.07 | 1.0 | 0.0 | 84.142 | 1.188 | 0.0 | 77.925 | 1.198 | 14.16 |
| 2.99 | 78.415 | 0.938 | -0.07 | 1.0 | 0.0 | 83.598 | 1.196 | 0.0 | 77.415 | 1.206 | 14.28 |
| 3.00 | 77.803 | 0.938 | -0.07 | 1.0 | 0.0 | 82.946 | 1.206 | 0.0 | 76.803 | 1.215 | 14.42 |
| 3.01 | 77.089 | 0.948 | -0.07 | 1.0 | 0.0 | 81.318 | 1.23 | 0.0 | 76.089 | 1.24 | 14.66 |
| 3.02 | 76.376 | 0.948 | -0.07 | 1.0 | 0.0 | 80.565 | 1.241 | 0.0 | 75.376 | 1.252 | 14.83 |
| 3.03 | 75.866 | 0.938 | -0.07 | 1.0 | 0.0 | 80.881 | 1.236 | 0.0 | 74.866 | 1.247 | 14.87 |
| 3.04 | 75.356 | 0.959 | -0.07 | 1.0 | 0.0 | 78.578 | 1.273 | 0.0 | 74.356 | 1.284 | 15.17 |
| 3.05 | 75.152 | 0.959 | -0.07 | 1.0 | 0.0 | 78.365 | 1.276 | 0.0 | 74.152 | 1.287 | 15.22 |
| 3.06 | 75.152 | 0.969 | -0.07 | 1.0 | 0.0 | 77.556 | 1.289 | 0.0 | 74.152 | 1.301 | 15.31 |
| 3.07 | 75.152 | 0.969 | -0.07 | 1.0 | 0.0 | 77.556 | 1.289 | 0.0 | 74.152 | 1.301 | 15.31 |
| 3.08 | 75.254 | 0.979 | -0.07 | 1.0 | 0.0 | 76.868 | 1.301 | 0.0 | 74.254 | 1.312 | 15.37 |
| 3.09 | 75.254 | 0.969 | -0.07 | 1.0 | 0.0 | 77.662 | 1.288 | 0.0 | 74.254 | 1.299 | 15.28 |
| 3.10 | 75.05 | 0.959 | -0.06 | 1.0 | 0.0 | 78.259 | 1.278 | 0.0 | 74.05 | 1.289 | 15.25 |
| 3.11 | 74.948 | 0.959 | -0.06 | 1.0 | 0.0 | 78.152 | 1.28 | 0.0 | 73.948 | 1.291 | 15.27 |
| 3.12 | 74.948 | 0.959 | -0.06 | 1.0 | 0.0 | 78.152 | 1.28 | 0.0 | 73.948 | 1.291 | 15.27 |
| 3.13 | 74.54 | 0.959 | -0.06 | 1.0 | 0.0 | 77.727 | 1.287 | 0.0 | 73.54 | 1.298 | 15.37 |
| 3.14 | 74.438 | 0.948 | -0.06 | 1.0 | 0.0 | 78.521 | 1.274 | 0.0 | 73.438 | 1.285 | 15.3 |
| 3.15 | 74.132 | 0.948 | -0.06 | 1.0 | 0.0 | 78.198 | 1.279 | 0.0 | 73.132 | 1.29 | 15.38 |
| 3.16 | 73.622 | 0.948 | -0.06 | 1.0 | 0.0 | 77.66 | 1.288 | 0.0 | 72.622 | 1.299 | 15.51 |
| 3.17 | 73.316 | 0.948 | -0.05 | 1.0 | 0.0 | 77.338 | 1.293 | 0.0 | 72.316 | 1.305 | 15.58 |
| 3.18 | 73.112 | 0.938 | -0.05 | 1.0 | 0.0 | 77.945 | 1.283 | 0.0 | 72.112 | 1.295 | 15.55 |
| 3.19 | 72.705 | 0.938 | -0.05 | 1.0 | 0.0 | 77.511 | 1.29 | 0.0 | 71.705 | 1.302 | 15.65 |
| 3.20 | 72.399 | 0.928 | -0.05 | 1.0 | 0.0 | 78.016 | 1.282 | 0.0 | 71.399 | 1.294 | 15.64 |
| 3.21 | 72.195 | 0.918 | -0.05 | 1.0 | 0.0 | 78.644 | 1.272 | 0.0 | 71.195 | 1.284 | 15.6 |
| 3.22 | 72.195 | 0.918 | -0.05 | 1.0 | 0.0 | 78.644 | 1.272 | 0.0 | 71.195 | 1.284 | 15.6 |
| 3.23 | 72.297 | 0.918 | -0.06 | 1.0 | 0.0 | 78.755 | 1.27 | 0.0 | 71.297 | 1.282 | 15.58 |
| 3.24 | 73.622 | 0.908 | -0.05 | 1.0 | 0.0 | 81.081 | 1.233 | 0.0 | 72.622 | 1.245 | 15.15 |
| 3.25 | 74.744 | 0.897 | -0.05 | 1.0 | 0.0 | 83.327 | 1.2 | 0.0 | 73.744 | 1.211 | 14.78 |
| 3.26 | 75.56 | 0.887 | -0.05 | 1.0 | 0.0 | 85.186 | 1.174 | 0.0 | 74.56 | 1.185 | 14.5 |
| 3.27 | 76.274 | 0.887 | -0.05 | 1.0 | 0.0 | 85.991 | 1.163 | 0.0 | 75.274 | 1.174 | 14.33 |
| 3.28 | 76.172 | 0.887 | -0.05 | 1.0 | 0.0 | 85.876 | 1.164 | 0.0 | 75.172 | 1.175 | 14.36 |
| 3.29 | 75.662 | 0.887 | -0.05 | 1.0 | 0.0 | 85.301 | 1.172 | 0.0 | 74.662 | 1.183 | 14.48 |
| 3.30 | 74.234 | 0.887 | -0.05 | 1.0 | 0.0 | 83.691 | 1.195 | 0.0 | 73.234 | 1.206 | 14.82 |
| 3.31 | 73.928 | 0.897 | -0.05 | 1.0 | 0.0 | 82.417 | 1.213 | 0.0 | 72.928 | 1.225 | 14.98 |
| 3.32 | 73.826 | 0.897 | -0.04 | 1.0 | 0.0 | 82.303 | 1.215 | 0.0 | 72.826 | 1.227 | 15.01 |
| 3.33 | 74.03 | 0.887 | -0.04 | 1.0 | 0.0 | 83.461 | 1.198 | 0.0 | 73.03 | 1.21 | 14.87 |
| 3.34 | 74.438 | 0.887 | -0.04 | 1.0 | 0.0 | 83.921 | 1.192 | 0.0 | 73.438 | 1.203 | 14.77 |
| 3.35 | 74.948 | 0.897 | -0.04 | 1.0 | 0.0 | 83.554 | 1.197 | 0.0 | 73.948 | 1.208 | 14.74 |
| 3.36 | 75.356 | 0.897 | -0.03 | 1.0 | 0.0 | 84.009 | 1.19 | 0.0 | 74.356 | 1.202 | 14.64 |
| 3.37 | 75.254 | 0.918 | -0.04 | 1.0 | 0.0 | 81.976 | 1.22 | 0.0 | 74.254 | 1.232 | 14.85 |
| 3.38 | 74.846 | 0.918 | -0.04 | 1.0 | 0.0 | 81.532 | 1.227 | 0.0 | 73.846 | 1.238 | 14.95 |
| 3.39 | 74.234 | 0.918 | -0.04 | 1.0 | 0.0 | 80.865 | 1.237 | 0.0 | 73.234 | 1.249 | 15.1 |
| 3.40 | 73.418 | 0.928 | -0.05 | 1.0 | 0.0 | 79.114 | 1.264 | 0.0 | 72.418 | 1.276 | 15.39 |
| 3.41 | 72.297 | 0.928 | -0.05 | 1.0 | 0.0 | 77.906 | 1.284 | 0.0 | 71.297 | 1.296 | 15.67 |
| 3.42 | 71.073 | 0.928 | -0.05 | 1.0 | 0.0 | 76.587 | 1.306 | 0.0 | 70.073 | 1.319 | 15.99 |
| 3.43 | 70.155 | 0.928 | -0.05 | 1.0 | 0.0 | 75.598 | 1.323 | 0.0 | 69.155 | 1.337 | 16.24 |

Prova n. 6

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|--------|-------|-----|--------|-------|-------|
| 3.44 | 69.34 | 0.928 | -0.05 | 1.0 | 0.0 | 74.72 | 1.338 | 0.0 | 68.34 | 1.352 | 16.46 |
| 3.45 | 69.238 | 0.938 | -0.05 | 1.0 | 0.0 | 73.814 | 1.355 | 0.0 | 68.238 | 1.369 | 16.58 |
| 3.46 | 69.442 | 0.938 | -0.05 | 1.0 | 0.0 | 74.032 | 1.351 | 0.0 | 68.442 | 1.365 | 16.52 |
| 3.47 | 69.747 | 0.928 | -0.05 | 1.0 | 0.0 | 75.158 | 1.331 | 0.0 | 68.747 | 1.345 | 16.35 |
| 3.48 | 69.544 | 0.928 | -0.05 | 1.0 | 0.0 | 74.94 | 1.334 | 0.0 | 68.544 | 1.349 | 16.4 |
| 3.49 | 69.442 | 0.928 | -0.05 | 1.0 | 0.0 | 74.83 | 1.336 | 0.0 | 68.442 | 1.351 | 16.43 |
| 3.50 | 69.747 | 0.938 | -0.05 | 1.0 | 0.0 | 74.357 | 1.345 | 0.0 | 68.747 | 1.359 | 16.44 |
| 3.51 | 70.257 | 0.948 | -0.05 | 1.0 | 0.0 | 74.111 | 1.349 | 0.0 | 69.257 | 1.364 | 16.39 |
| 3.52 | 71.175 | 0.948 | -0.05 | 1.0 | 0.0 | 75.079 | 1.332 | 0.0 | 70.175 | 1.346 | 16.15 |
| 3.53 | 72.603 | 0.938 | -0.05 | 0.9 | 0.0 | 77.402 | 1.292 | 0.0 | 71.603 | 1.305 | 15.68 |
| 3.54 | 72.603 | 0.928 | -0.04 | 0.9 | 0.0 | 78.236 | 1.278 | 0.0 | 71.603 | 1.291 | 15.6 |
| 3.55 | 72.195 | 0.928 | -0.04 | 0.9 | 0.0 | 77.796 | 1.285 | 0.0 | 71.195 | 1.299 | 15.7 |
| 3.56 | 71.685 | 0.918 | -0.04 | 0.9 | 0.0 | 78.088 | 1.281 | 0.0 | 70.685 | 1.294 | 15.74 |
| 3.57 | 70.359 | 0.918 | -0.04 | 0.9 | 0.0 | 76.644 | 1.305 | 0.0 | 69.359 | 1.319 | 16.09 |
| 3.58 | 69.238 | 0.908 | -0.04 | 0.9 | 0.0 | 76.253 | 1.311 | 0.0 | 68.238 | 1.326 | 16.31 |
| 3.59 | 67.708 | 0.908 | -0.04 | 0.9 | 0.0 | 74.568 | 1.341 | 0.0 | 66.708 | 1.356 | 16.73 |
| 3.60 | 66.28 | 0.908 | -0.04 | 0.9 | 0.0 | 72.996 | 1.37 | 0.0 | 65.28 | 1.386 | 17.15 |
| 3.61 | 63.017 | 0.897 | -0.04 | 0.9 | 0.0 | 70.253 | 1.423 | 0.0 | 62.017 | 1.441 | 18.05 |
| 3.62 | 61.59 | 0.897 | -0.04 | 0.9 | 0.0 | 68.662 | 1.456 | 0.0 | 60.59 | 1.475 | 18.51 |
| 3.63 | 60.366 | 0.877 | -0.04 | 0.9 | 0.0 | 68.832 | 1.453 | 0.0 | 59.366 | 1.472 | 18.72 |
| 3.64 | 59.245 | 0.857 | -0.04 | 0.9 | 0.0 | 69.131 | 1.447 | 0.0 | 58.245 | 1.466 | 18.9 |
| 3.65 | 58.225 | 0.836 | -0.04 | 0.9 | 0.0 | 69.647 | 1.436 | 0.0 | 57.225 | 1.455 | 19.03 |
| 3.66 | 57.511 | 0.826 | -0.04 | 0.9 | 0.0 | 69.626 | 1.436 | 0.0 | 56.511 | 1.456 | 19.18 |
| 3.67 | 57.001 | 0.816 | -0.04 | 0.9 | 0.0 | 69.854 | 1.432 | 0.0 | 56.001 | 1.451 | 19.25 |
| 3.68 | 56.491 | 0.795 | -0.04 | 0.9 | 0.0 | 71.058 | 1.407 | 0.0 | 55.491 | 1.427 | 19.2 |
| 3.69 | 56.389 | 0.785 | -0.04 | 0.9 | 0.0 | 71.833 | 1.392 | 0.0 | 55.389 | 1.412 | 19.13 |
| 3.70 | 57.103 | 0.755 | -0.04 | 0.9 | 0.0 | 75.633 | 1.322 | 0.0 | 56.103 | 1.341 | 18.52 |
| 3.71 | 57.817 | 0.744 | -0.04 | 0.9 | 0.0 | 77.711 | 1.287 | 0.0 | 56.817 | 1.305 | 18.14 |
| 3.72 | 58.837 | 0.724 | -0.04 | 0.9 | 0.0 | 81.267 | 1.231 | 0.0 | 57.837 | 1.247 | 17.55 |
| 3.73 | 59.856 | 0.714 | -0.04 | 0.9 | 0.0 | 83.832 | 1.193 | 0.0 | 58.856 | 1.209 | 17.1 |
| 3.74 | 61.08 | 0.714 | -0.04 | 0.9 | 0.0 | 85.546 | 1.169 | 0.0 | 60.08 | 1.184 | 16.7 |
| 3.75 | 62.202 | 0.704 | -0.04 | 0.9 | 0.0 | 88.355 | 1.132 | 0.0 | 61.202 | 1.146 | 16.24 |
| 3.76 | 63.017 | 0.704 | -0.04 | 0.9 | 0.0 | 89.513 | 1.117 | 0.0 | 62.017 | 1.131 | 16 |
| 3.77 | 63.833 | 0.704 | -0.04 | 0.9 | 0.0 | 90.672 | 1.103 | 0.0 | 62.833 | 1.117 | 15.76 |
| 3.78 | 64.241 | 0.704 | -0.04 | 1.0 | 0.0 | 91.251 | 1.096 | 0.0 | 63.241 | 1.11 | 15.64 |
| 3.79 | 64.241 | 0.714 | -0.04 | 0.9 | 0.0 | 89.973 | 1.111 | 0.0 | 63.241 | 1.125 | 15.75 |
| 3.80 | 63.935 | 0.714 | -0.04 | 0.9 | 0.0 | 89.545 | 1.117 | 0.0 | 62.935 | 1.131 | 15.84 |
| 3.81 | 63.425 | 0.724 | -0.04 | 0.9 | 0.0 | 87.604 | 1.142 | 0.0 | 62.425 | 1.156 | 16.1 |
| 3.82 | 62.915 | 0.734 | -0.04 | 0.9 | 0.0 | 85.715 | 1.167 | 0.0 | 61.915 | 1.182 | 16.37 |
| 3.83 | 62.304 | 0.744 | -0.04 | 0.9 | 0.0 | 83.742 | 1.194 | 0.0 | 61.304 | 1.21 | 16.66 |
| 3.84 | 61.59 | 0.765 | -0.04 | 0.9 | 0.0 | 80.51 | 1.242 | 0.0 | 60.59 | 1.259 | 17.12 |
| 3.85 | 60.876 | 0.775 | -0.04 | 0.9 | 0.0 | 78.55 | 1.273 | 0.0 | 59.876 | 1.29 | 17.46 |
| 3.86 | 60.06 | 0.785 | -0.04 | 0.9 | 0.0 | 76.51 | 1.307 | 0.0 | 59.06 | 1.325 | 17.84 |
| 3.87 | 59.347 | 0.795 | -0.04 | 0.9 | 0.0 | 74.65 | 1.34 | 0.0 | 58.347 | 1.358 | 18.19 |
| 3.88 | 58.735 | 0.806 | -0.04 | 0.9 | 0.0 | 72.872 | 1.372 | 0.0 | 57.735 | 1.392 | 18.53 |
| 3.89 | 58.735 | 0.806 | -0.04 | 0.9 | 0.0 | 72.872 | 1.372 | 0.0 | 57.735 | 1.392 | 18.53 |
| 3.90 | 58.735 | 0.806 | -0.04 | 0.9 | 0.0 | 72.872 | 1.372 | 0.0 | 57.735 | 1.392 | 18.53 |
| 3.91 | 57.001 | 0.714 | -0.04 | 0.9 | 0.0 | 79.833 | 1.253 | 0.0 | 56.001 | 1.271 | 18.07 |
| 3.92 | 56.593 | 0.714 | -0.04 | 0.9 | 0.0 | 79.262 | 1.262 | 0.0 | 55.593 | 1.28 | 18.22 |
| 3.93 | 56.185 | 0.714 | -0.04 | 0.9 | 0.0 | 78.69 | 1.271 | 0.0 | 55.185 | 1.29 | 18.36 |
| 3.94 | 55.88 | 0.714 | -0.03 | 0.9 | 0.0 | 78.263 | 1.278 | 0.0 | 54.88 | 1.297 | 18.48 |
| 3.95 | 55.472 | 0.714 | 0.07 | 0.9 | 0.0 | 77.692 | 1.287 | 0.0 | 54.472 | 1.307 | 18.63 |
| 3.96 | 54.758 | 0.714 | 0.14 | 0.9 | 0.0 | 76.692 | 1.304 | 0.0 | 53.758 | 1.324 | 18.89 |
| 3.97 | 54.554 | 0.724 | 0.14 | 0.9 | 0.0 | 75.351 | 1.327 | 0.0 | 53.554 | 1.348 | 19.1 |
| 3.98 | 54.452 | 0.724 | 0.16 | 0.9 | 0.0 | 75.21 | 1.33 | 0.0 | 53.452 | 1.351 | 19.14 |
| 3.99 | 54.452 | 0.724 | 0.20 | 0.9 | 0.0 | 75.21 | 1.33 | 0.0 | 53.452 | 1.351 | 19.14 |
| 4.00 | 54.656 | 0.724 | 0.20 | 0.9 | 0.0 | 75.492 | 1.325 | 0.0 | 53.656 | 1.346 | 19.06 |
| 4.01 | 55.064 | 0.714 | 0.20 | 0.9 | 0.0 | 77.12 | 1.297 | 0.0 | 54.064 | 1.317 | 18.78 |
| 4.02 | 55.472 | 0.724 | 0.17 | 0.9 | 0.0 | 76.619 | 1.305 | 0.0 | 54.472 | 1.326 | 18.75 |
| 4.03 | 56.287 | 0.724 | 0.16 | 0.9 | 0.0 | 77.744 | 1.286 | 0.0 | 55.287 | 1.306 | 18.45 |
| 4.04 | 57.205 | 0.724 | 0.20 | 0.9 | 0.0 | 79.012 | 1.266 | 0.0 | 56.205 | 1.285 | 18.12 |
| 4.05 | 58.225 | 0.724 | 0.16 | 0.9 | 0.0 | 80.421 | 1.243 | 0.0 | 57.225 | 1.262 | 17.77 |
| 4.06 | 59.55 | 0.734 | 0.16 | 0.9 | 0.0 | 81.131 | 1.233 | 0.0 | 58.55 | 1.251 | 17.44 |
| 4.07 | 61.284 | 0.734 | 0.19 | 0.9 | 0.0 | 83.493 | 1.198 | 0.0 | 60.284 | 1.215 | 16.88 |
| 4.08 | 61.896 | 0.744 | 0.26 | 0.9 | 0.0 | 83.194 | 1.202 | 0.0 | 60.896 | 1.219 | 16.8 |
| 4.09 | 62.508 | 0.744 | 0.25 | 0.9 | 0.0 | 84.016 | 1.19 | 0.0 | 61.508 | 1.207 | 16.61 |

Prova n. 6

| | | | | | | | | | | | |
|------|---------|-------|------|-----|-----|---------|-------|-----|---------|-------|-------|
| 4.10 | 63.017 | 0.744 | 0.21 | 0.9 | 0.0 | 84.7 | 1.181 | 0.0 | 62.017 | 1.197 | 16.45 |
| 4.11 | 63.323 | 0.744 | 0.22 | 0.9 | 0.0 | 85.112 | 1.175 | 0.0 | 62.323 | 1.191 | 16.36 |
| 4.12 | 63.833 | 0.755 | 0.25 | 0.9 | 0.0 | 84.547 | 1.183 | 0.0 | 62.833 | 1.199 | 16.33 |
| 4.13 | 64.139 | 0.785 | 0.31 | 0.9 | 0.0 | 81.706 | 1.224 | 0.0 | 63.139 | 1.241 | 16.56 |
| 4.14 | 65.057 | 0.826 | 0.32 | 0.9 | 0.0 | 78.762 | 1.27 | 0.0 | 64.057 | 1.287 | 16.71 |
| 4.15 | 65.567 | 0.846 | 0.41 | 0.9 | 0.0 | 77.502 | 1.29 | 0.0 | 64.567 | 1.308 | 16.77 |
| 4.16 | 66.28 | 0.867 | 0.41 | 0.9 | 0.0 | 76.448 | 1.308 | 0.0 | 65.28 | 1.326 | 16.77 |
| 4.17 | 67.3 | 0.877 | 0.44 | 0.9 | 0.0 | 76.739 | 1.303 | 0.0 | 66.3 | 1.32 | 16.57 |
| 4.18 | 68.524 | 0.887 | 0.49 | 0.9 | 0.0 | 77.254 | 1.294 | 0.0 | 67.524 | 1.311 | 16.32 |
| 4.19 | 69.442 | 0.897 | 0.51 | 0.9 | 0.0 | 77.416 | 1.292 | 0.0 | 68.442 | 1.308 | 16.16 |
| 4.20 | 70.563 | 0.897 | 0.45 | 0.9 | 0.0 | 78.666 | 1.271 | 0.0 | 69.563 | 1.287 | 15.86 |
| 4.21 | 72.297 | 0.887 | 0.52 | 0.9 | 0.0 | 81.507 | 1.227 | 0.0 | 71.297 | 1.242 | 15.32 |
| 4.22 | 72.909 | 0.887 | 0.46 | 0.9 | 0.0 | 82.197 | 1.217 | 0.0 | 71.909 | 1.232 | 15.17 |
| 4.23 | 73.316 | 0.887 | 0.50 | 0.9 | 0.0 | 82.656 | 1.21 | 0.0 | 72.316 | 1.225 | 15.06 |
| 4.24 | 73.622 | 0.887 | 0.46 | 0.9 | 0.0 | 83.001 | 1.205 | 0.0 | 72.622 | 1.22 | 14.99 |
| 4.25 | 73.724 | 0.897 | 0.48 | 0.9 | 0.0 | 82.19 | 1.217 | 0.0 | 72.724 | 1.232 | 15.05 |
| 4.26 | 73.826 | 0.897 | 0.33 | 0.9 | 0.0 | 83.303 | 1.215 | 0.0 | 72.826 | 1.23 | 15.03 |
| 4.27 | 74.03 | 0.908 | 0.45 | 0.9 | 0.0 | 81.531 | 1.227 | 0.0 | 73.03 | 1.242 | 15.08 |
| 4.28 | 74.234 | 0.908 | 0.33 | 0.9 | 0.0 | 81.756 | 1.223 | 0.0 | 73.234 | 1.238 | 15.03 |
| 4.29 | 74.234 | 0.918 | 0.29 | 0.9 | 0.0 | 80.865 | 1.237 | 0.0 | 73.234 | 1.252 | 15.12 |
| 4.30 | 74.132 | 0.918 | 0.33 | 0.9 | 0.0 | 80.754 | 1.238 | 0.0 | 73.132 | 1.254 | 15.14 |
| 4.31 | 74.132 | 0.918 | 0.31 | 0.9 | 0.0 | 80.754 | 1.238 | 0.0 | 73.132 | 1.254 | 15.14 |
| 4.32 | 74.132 | 0.918 | 0.31 | 0.9 | 0.0 | 80.754 | 1.238 | 0.0 | 73.132 | 1.254 | 15.14 |
| 4.33 | 73.928 | 0.908 | 0.28 | 0.9 | 0.0 | 81.419 | 1.228 | 0.0 | 72.928 | 1.244 | 15.1 |
| 4.34 | 73.928 | 0.908 | 0.28 | 0.9 | 0.0 | 81.419 | 1.228 | 0.0 | 72.928 | 1.244 | 15.11 |
| 4.35 | 73.622 | 0.887 | 0.21 | 0.9 | 0.0 | 83.001 | 1.205 | 0.0 | 72.622 | 1.22 | 14.99 |
| 4.36 | 73.316 | 0.857 | 0.24 | 0.9 | 0.0 | 85.55 | 1.169 | 0.0 | 72.316 | 1.184 | 14.79 |
| 4.37 | 73.112 | 0.836 | 0.26 | 0.9 | 0.0 | 87.455 | 1.143 | 0.0 | 72.112 | 1.158 | 14.65 |
| 4.38 | 72.705 | 0.826 | 0.25 | 0.9 | 0.0 | 88.021 | 1.136 | 0.0 | 71.705 | 1.151 | 14.65 |
| 4.39 | 72.501 | 0.816 | 0.31 | 0.9 | 0.0 | 88.849 | 1.126 | 0.0 | 71.501 | 1.14 | 14.61 |
| 4.40 | 72.195 | 0.806 | 0.32 | 1.0 | 0.0 | 89.572 | 1.116 | 0.0 | 71.195 | 1.131 | 14.59 |
| 4.41 | 71.991 | 0.795 | 0.35 | 1.0 | 0.0 | 90.555 | 1.104 | 0.0 | 70.991 | 1.119 | 14.53 |
| 4.42 | 71.685 | 0.795 | 0.33 | 1.0 | 0.0 | 90.17 | 1.109 | 0.0 | 70.685 | 1.124 | 14.61 |
| 4.43 | 71.379 | 0.795 | 0.30 | 1.0 | 0.0 | 89.785 | 1.114 | 0.0 | 70.379 | 1.129 | 14.69 |
| 4.44 | 70.767 | 0.785 | 0.29 | 1.0 | 0.0 | 90.149 | 1.109 | 0.0 | 69.767 | 1.124 | 14.74 |
| 4.45 | 69.951 | 0.795 | 0.24 | 1.0 | 0.0 | 87.989 | 1.137 | 0.0 | 68.951 | 1.152 | 15.05 |
| 4.46 | 69.34 | 0.806 | 0.22 | 1.0 | 0.0 | 86.03 | 1.162 | 0.0 | 68.34 | 1.178 | 15.32 |
| 4.47 | 68.932 | 0.806 | 0.25 | 1.0 | 0.0 | 85.524 | 1.169 | 0.0 | 67.932 | 1.186 | 15.43 |
| 4.48 | 68.422 | 0.806 | 0.19 | 1.0 | 0.0 | 84.891 | 1.178 | 0.0 | 67.422 | 1.195 | 15.57 |
| 4.49 | 67.912 | 0.806 | 0.26 | 1.0 | 0.0 | 84.258 | 1.187 | 0.0 | 66.912 | 1.204 | 15.71 |
| 4.50 | 67.708 | 0.795 | 0.22 | 1.0 | 0.0 | 85.167 | 1.174 | 0.0 | 66.708 | 1.191 | 15.65 |
| 4.51 | 67.606 | 0.795 | 0.21 | 1.0 | 0.0 | 85.039 | 1.176 | 0.0 | 66.606 | 1.193 | 15.68 |
| 4.52 | 67.504 | 0.795 | 0.25 | 1.0 | 0.0 | 84.911 | 1.178 | 0.0 | 66.504 | 1.195 | 15.71 |
| 4.53 | 66.586 | 0.785 | 0.34 | 1.0 | 0.0 | 84.823 | 1.179 | 0.0 | 65.586 | 1.196 | 15.86 |
| 4.54 | 66.077 | 0.785 | 0.38 | 1.0 | 0.0 | 84.175 | 1.188 | 0.0 | 65.077 | 1.206 | 16.01 |
| 4.55 | 65.363 | 0.785 | 0.39 | 1.0 | 0.0 | 83.265 | 1.201 | 0.0 | 64.363 | 1.219 | 16.21 |
| 4.56 | 64.955 | 0.775 | 0.46 | 1.0 | 0.0 | 83.813 | 1.193 | 0.0 | 63.955 | 1.211 | 16.23 |
| 4.57 | 65.159 | 0.765 | 0.48 | 1.0 | 0.0 | 85.175 | 1.174 | 0.0 | 64.159 | 1.192 | 16.06 |
| 4.58 | 66.28 | 0.765 | 0.50 | 1.0 | 0.0 | 86.641 | 1.154 | 0.0 | 65.28 | 1.171 | 15.74 |
| 4.59 | 67.504 | 0.765 | 0.39 | 1.0 | 0.0 | 88.241 | 1.133 | 0.0 | 66.504 | 1.15 | 15.4 |
| 4.60 | 69.34 | 0.765 | 0.45 | 1.0 | 0.0 | 90.641 | 1.103 | 0.0 | 68.34 | 1.119 | 14.91 |
| 4.61 | 76.07 | 0.744 | 0.38 | 1.0 | 0.0 | 102.245 | 0.978 | 0.0 | 75.07 | 0.991 | 13.09 |
| 4.62 | 80.148 | 0.734 | 0.37 | 1.0 | 0.0 | 109.193 | 0.916 | 0.0 | 79.148 | 0.927 | 12.14 |
| 4.63 | 83.921 | 0.724 | 0.33 | 1.0 | 0.0 | 115.913 | 0.863 | 0.0 | 82.921 | 0.873 | 11.32 |
| 4.64 | 87.286 | 0.734 | 0.34 | 1.0 | 0.0 | 118.918 | 0.841 | 0.0 | 86.286 | 0.851 | 10.81 |
| 4.65 | 88.918 | 0.755 | 0.33 | 1.0 | 0.0 | 117.772 | 0.849 | 0.0 | 87.918 | 0.859 | 10.71 |
| 4.66 | 87.796 | 0.765 | 0.31 | 1.0 | 0.0 | 114.766 | 0.871 | 0.0 | 86.796 | 0.881 | 10.99 |
| 4.67 | 87.082 | 0.744 | 0.27 | 1.0 | 0.0 | 117.046 | 0.854 | 0.0 | 86.082 | 0.864 | 10.93 |
| 4.68 | 88.612 | 0.724 | 0.21 | 1.0 | 0.0 | 122.392 | 0.817 | 0.0 | 87.612 | 0.826 | 10.5 |
| 4.69 | 92.589 | 0.653 | 0.11 | 1.0 | 0.0 | 141.79 | 0.705 | 0.0 | 91.589 | 0.713 | 9.24 |
| 4.70 | 92.691 | 0.602 | 0.09 | 1.0 | 0.0 | 153.972 | 0.649 | 0.0 | 91.691 | 0.657 | 8.77 |
| 4.71 | 94.934 | 0.581 | 0.09 | 1.0 | 0.0 | 163.398 | 0.612 | 0.0 | 93.934 | 0.619 | 8.27 |
| 4.72 | 98.401 | 0.561 | 0.09 | 1.0 | 0.0 | 175.403 | 0.57 | 0.0 | 97.401 | 0.576 | 7.63 |
| 4.73 | 104.621 | 0.54 | 0.08 | 1.0 | 0.0 | 193.743 | 0.516 | 0.0 | 103.621 | 0.521 | 6.7 |
| 4.74 | 109.822 | 0.53 | 0.06 | 1.1 | 0.0 | 207.211 | 0.483 | 0.0 | 108.822 | 0.487 | 6.05 |
| 4.75 | 115.736 | 0.5 | 0.07 | 1.1 | 0.0 | 231.472 | 0.432 | 0.0 | 114.736 | 0.436 | 5.24 |

Prova n. 6

| | | | | | | | | | | | |
|------|---------|-------|------|-----|-----|---------|-------|-----|---------|-------|-------|
| 4.76 | 119.815 | 0.5 | 0.04 | 1.1 | 0.0 | 239.63 | 0.417 | 0.0 | 118.815 | 0.421 | 4.87 |
| 4.77 | 121.752 | 0.51 | 0.05 | 1.1 | 0.0 | 238.729 | 0.419 | 0.0 | 120.752 | 0.422 | 4.79 |
| 4.78 | 121.548 | 0.479 | 0.05 | 1.1 | 0.0 | 253.754 | 0.394 | 0.0 | 120.548 | 0.397 | 4.57 |
| 4.79 | 115.838 | 0.602 | 0.05 | 1.1 | 0.0 | 192.422 | 0.52 | 0.0 | 114.838 | 0.524 | 6.01 |
| 4.80 | 115.838 | 0.693 | 0.05 | 1.1 | 0.0 | 167.154 | 0.598 | 0.0 | 114.838 | 0.604 | 6.67 |
| 4.81 | 116.552 | 0.581 | 0.04 | 1.1 | 0.0 | 200.606 | 0.498 | 0.0 | 115.552 | 0.503 | 5.79 |
| 4.82 | 112.779 | 0.591 | 0.06 | 1.2 | 0.0 | 190.827 | 0.524 | 0.0 | 111.779 | 0.529 | 6.23 |
| 4.83 | 112.167 | 0.581 | 0.06 | 1.2 | 0.0 | 193.059 | 0.518 | 0.0 | 111.167 | 0.523 | 6.22 |
| 4.84 | 111.759 | 0.561 | 0.08 | 1.2 | 0.0 | 199.214 | 0.502 | 0.0 | 110.759 | 0.507 | 6.1 |
| 4.85 | 109.414 | 0.5 | 0.07 | 1.2 | 0.0 | 218.828 | 0.457 | 0.0 | 108.414 | 0.461 | 5.85 |
| 4.86 | 107.068 | 0.398 | 0.07 | 1.2 | 0.0 | 269.015 | 0.372 | 0.0 | 106.068 | 0.375 | 5.18 |
| 4.87 | 105.131 | 0.387 | 0.06 | 1.2 | 0.0 | 271.656 | 0.368 | 0.0 | 104.131 | 0.372 | 5.27 |
| 4.88 | 105.131 | 0.347 | 0.08 | 1.3 | 0.0 | 302.971 | 0.33 | 0.0 | 104.131 | 0.333 | 4.89 |
| 4.89 | 105.131 | 0.347 | 0.08 | 1.3 | 0.0 | 302.971 | 0.33 | 0.0 | 104.131 | 0.333 | 4.89 |
| 4.90 | 105.131 | 0.347 | 0.08 | 1.3 | 0.0 | 302.971 | 0.33 | 0.0 | 104.131 | 0.333 | 4.89 |
| 4.91 | 106.355 | 0.408 | 0.58 | 1.3 | 0.0 | 260.674 | 0.384 | 0.0 | 105.355 | 0.387 | 5.35 |
| 4.92 | 113.799 | 0.459 | 0.54 | 1.4 | 0.0 | 247.928 | 0.403 | 0.0 | 112.799 | 0.407 | 5.08 |
| 4.93 | 156.218 | 0.785 | 0.82 | 1.6 | 0.0 | 199.004 | 0.503 | 0.0 | 155.218 | 0.506 | 4.01 |
| 4.94 | 194.661 | 1.071 | 1.28 | 1.8 | 0.0 | 181.756 | 0.55 | 0.0 | 193.661 | 0.553 | 3.2 |
| 4.95 | 218.42 | 1.509 | 2.17 | 2.4 | 0.0 | 144.745 | 0.691 | 0.0 | 217.42 | 0.694 | 3.61 |
| 4.96 | 121.446 | 1.254 | 4.26 | 2.6 | 0.0 | 96.847 | 1.033 | 0.0 | 120.446 | 1.042 | 9.46 |
| 4.97 | 121.956 | 2.203 | 5.30 | 2.6 | 0.0 | 55.359 | 1.806 | 0.0 | 120.956 | 1.822 | 13.75 |
| 4.98 | 70.359 | 3.029 | 7.27 | 2.7 | 0.0 | 23.228 | 4.305 | 0.0 | 69.359 | 4.371 | 29.49 |
| 4.99 | 90.651 | 3.039 | 7.36 | 2.7 | 0.0 | 29.829 | 3.352 | 0.0 | 89.651 | 3.392 | 23.14 |
| 5.00 | 82.188 | 3.079 | 7.44 | 2.7 | 0.0 | 26.693 | 3.746 | 0.0 | 81.188 | 3.796 | 25.67 |
| 5.01 | 73.418 | 2.804 | 7.16 | 2.8 | 0.0 | 26.183 | 3.819 | 0.0 | 72.418 | 3.876 | 27.29 |
| 5.02 | 55.574 | 3.039 | 7.04 | 2.8 | 0.0 | 18.287 | 5.468 | 0.0 | 54.574 | 5.576 | 36.39 |
| 5.03 | 60.366 | 3.151 | 7.08 | 2.8 | 0.0 | 19.158 | 5.22 | 0.0 | 59.366 | 5.314 | 34.45 |
| 5.04 | 61.284 | 3.263 | 7.33 | 2.8 | 0.0 | 18.781 | 5.324 | 0.0 | 60.284 | 5.42 | 34.55 |
| 5.05 | 66.892 | 3.334 | 7.53 | 2.8 | 0.0 | 20.064 | 4.984 | 0.0 | 65.892 | 5.066 | 32.31 |
| 5.06 | 72.297 | 3.345 | 7.65 | 2.9 | 0.0 | 21.613 | 4.627 | 0.0 | 71.297 | 4.697 | 30.18 |
| 5.07 | 69.34 | 3.385 | 7.60 | 3.0 | 0.0 | 20.484 | 4.882 | 0.0 | 68.34 | 4.959 | 31.52 |
| 5.08 | 60.978 | 3.294 | 7.45 | 3.0 | 0.0 | 18.512 | 5.402 | 0.0 | 59.978 | 5.5 | 34.85 |
| 5.09 | 54.044 | 3.436 | 7.76 | 3.0 | 0.0 | 15.729 | 6.358 | 0.0 | 53.044 | 6.488 | 39.34 |
| 5.10 | 50.475 | 3.365 | 7.73 | 3.0 | 0.0 | 15.0 | 6.667 | 0.0 | 49.475 | 6.814 | 41.24 |
| 5.11 | 43.847 | 2.203 | 6.52 | 3.0 | 0.0 | 19.903 | 5.024 | 0.0 | 42.847 | 5.153 | 38.71 |
| 5.12 | 39.258 | 1.264 | 4.80 | 3.0 | 0.0 | 31.059 | 3.22 | 0.0 | 38.258 | 3.312 | 33.77 |
| 5.13 | 35.689 | 1.203 | 3.81 | 3.0 | 0.0 | 29.667 | 3.371 | 0.0 | 34.689 | 3.478 | 35.98 |
| 5.14 | 32.324 | 1.326 | 3.41 | 3.0 | 0.0 | 24.377 | 4.102 | 0.0 | 31.324 | 4.246 | 40.67 |
| 5.15 | 30.183 | 1.55 | 3.36 | 3.0 | 0.0 | 19.473 | 5.135 | 0.0 | 29.183 | 5.33 | 45.68 |
| 5.16 | 27.226 | 1.346 | 3.17 | 3.0 | 0.0 | 20.227 | 4.944 | 0.0 | 26.226 | 5.152 | 47.03 |
| 5.17 | 25.594 | 1.417 | 3.17 | 3.0 | 0.0 | 18.062 | 5.536 | 0.0 | 24.594 | 5.786 | 50.31 |
| 5.18 | 24.983 | 1.468 | 3.19 | 3.0 | 0.0 | 17.018 | 5.876 | 0.0 | 23.983 | 6.148 | 51.93 |
| 5.19 | 24.677 | 1.448 | 3.16 | 3.0 | 0.0 | 17.042 | 5.868 | 0.0 | 23.677 | 6.144 | 52.17 |
| 5.20 | 24.473 | 1.479 | 3.18 | 3.0 | 0.0 | 16.547 | 6.043 | 0.0 | 23.473 | 6.33 | 52.9 |
| 5.21 | 24.473 | 1.479 | 3.19 | 3.0 | 0.0 | 16.547 | 6.043 | 0.0 | 23.473 | 6.331 | 52.9 |
| 5.22 | 25.085 | 1.366 | 3.05 | 3.0 | 0.0 | 18.364 | 5.445 | 0.0 | 24.085 | 5.699 | 50.44 |
| 5.23 | 25.492 | 1.366 | 2.99 | 3.0 | 0.0 | 18.662 | 5.359 | 0.0 | 24.492 | 5.604 | 49.81 |
| 5.24 | 25.492 | 1.387 | 2.98 | 3.0 | 0.0 | 18.379 | 5.441 | 0.0 | 24.492 | 5.69 | 50.09 |
| 5.25 | 24.983 | 1.417 | 3.01 | 3.0 | 0.0 | 17.631 | 5.672 | 0.0 | 23.983 | 5.938 | 51.28 |
| 5.26 | 24.167 | 1.356 | 2.97 | 3.0 | 0.0 | 17.822 | 5.611 | 0.0 | 23.167 | 5.884 | 51.79 |
| 5.27 | 24.065 | 1.295 | 2.88 | 3.1 | 0.0 | 18.583 | 5.381 | 0.0 | 23.065 | 5.645 | 51.11 |
| 5.28 | 24.065 | 1.213 | 2.74 | 3.0 | 0.0 | 19.839 | 5.041 | 0.0 | 23.065 | 5.288 | 49.92 |
| 5.29 | 24.269 | 1.132 | 2.60 | 3.1 | 0.0 | 21.439 | 4.664 | 0.0 | 23.269 | 4.892 | 48.38 |
| 5.30 | 21.108 | 1.091 | 2.05 | 3.1 | 0.0 | 19.347 | 5.169 | 0.0 | 20.108 | 5.461 | 53.24 |
| 5.31 | 25.085 | 1.01 | 2.09 | 3.1 | 0.0 | 24.837 | 4.026 | 0.0 | 24.085 | 4.217 | 45.22 |
| 5.32 | 24.983 | 0.969 | 2.06 | 3.1 | 0.0 | 25.782 | 3.879 | 0.0 | 23.983 | 4.063 | 44.69 |
| 5.33 | 24.575 | 0.938 | 2.02 | 3.1 | 0.0 | 26.199 | 3.817 | 0.0 | 23.575 | 4.002 | 44.77 |
| 5.34 | 24.269 | 0.918 | 1.98 | 3.1 | 0.0 | 26.437 | 3.783 | 0.0 | 23.269 | 3.969 | 44.88 |
| 5.35 | 24.167 | 0.887 | 1.89 | 3.2 | 0.0 | 27.246 | 3.67 | 0.0 | 23.167 | 3.852 | 44.48 |
| 5.36 | 24.167 | 0.887 | 1.87 | 3.2 | 0.0 | 27.246 | 3.67 | 0.0 | 23.167 | 3.852 | 44.48 |
| 5.37 | 24.065 | 0.897 | 1.88 | 3.2 | 0.0 | 26.828 | 3.727 | 0.0 | 23.065 | 3.913 | 44.81 |
| 5.38 | 23.963 | 0.897 | 1.89 | 3.2 | 0.0 | 26.715 | 3.743 | 0.0 | 22.963 | 3.931 | 44.97 |
| 5.39 | 23.759 | 0.897 | 1.89 | 3.2 | 0.0 | 26.487 | 3.775 | 0.0 | 22.759 | 3.967 | 45.28 |
| 5.40 | 23.555 | 0.887 | 1.89 | 3.2 | 0.0 | 26.556 | 3.766 | 0.0 | 22.555 | 3.959 | 45.42 |
| 5.41 | 22.943 | 0.877 | 1.89 | 3.2 | 0.0 | 26.161 | 3.823 | 0.0 | 21.943 | 4.025 | 46.21 |

Prova n. 6

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 5.42 | 23.045 | 0.867 | 1.87 | 3.2 | 0.0 | 26.58 | 3.762 | 0.0 | 22.045 | 3.96 | 45.86 |
| 5.43 | 23.147 | 0.846 | 1.86 | 3.2 | 0.0 | 27.361 | 3.655 | 0.0 | 22.147 | 3.847 | 45.3 |
| 5.44 | 23.249 | 0.836 | 1.84 | 3.2 | 0.0 | 27.81 | 3.596 | 0.0 | 22.249 | 3.784 | 44.95 |
| 5.45 | 22.943 | 0.816 | 1.80 | 3.2 | 0.0 | 28.116 | 3.557 | 0.0 | 21.943 | 3.746 | 45.05 |
| 5.46 | 23.045 | 0.836 | 1.80 | 3.1 | 0.0 | 27.566 | 3.628 | 0.0 | 22.045 | 3.82 | 45.28 |
| 5.47 | 22.535 | 0.816 | 1.76 | 3.1 | 0.0 | 27.616 | 3.621 | 0.0 | 21.535 | 3.818 | 45.71 |
| 5.48 | 21.72 | 0.785 | 1.73 | 3.1 | 0.0 | 27.669 | 3.614 | 0.0 | 20.72 | 3.819 | 46.46 |
| 5.49 | 21.618 | 0.775 | 1.69 | 3.1 | 0.0 | 27.894 | 3.585 | 0.0 | 20.618 | 3.79 | 46.43 |
| 5.50 | 21.516 | 0.785 | 1.70 | 3.1 | 0.0 | 27.409 | 3.648 | 0.0 | 20.516 | 3.858 | 46.82 |
| 5.51 | 21.414 | 0.775 | 1.67 | 3.2 | 0.0 | 27.631 | 3.619 | 0.0 | 20.414 | 3.829 | 46.79 |
| 5.52 | 21.516 | 0.775 | 1.65 | 3.2 | 0.0 | 27.763 | 3.602 | 0.0 | 20.516 | 3.81 | 46.61 |
| 5.53 | 21.924 | 0.744 | 1.61 | 3.2 | 0.0 | 29.468 | 3.394 | 0.0 | 20.924 | 3.586 | 45.26 |
| 5.54 | 21.924 | 0.724 | 1.57 | 3.2 | 0.0 | 30.282 | 3.302 | 0.0 | 20.924 | 3.49 | 44.84 |
| 5.55 | 21.414 | 0.724 | 1.54 | 3.2 | 0.0 | 29.577 | 3.381 | 0.0 | 20.414 | 3.578 | 45.7 |
| 5.56 | 20.904 | 0.724 | 1.52 | 3.2 | 0.0 | 28.873 | 3.463 | 0.0 | 19.904 | 3.671 | 46.6 |
| 5.57 | 20.088 | 0.724 | 1.51 | 3.2 | 0.0 | 27.746 | 3.604 | 0.0 | 19.088 | 3.83 | 48.11 |
| 5.58 | 19.68 | 0.714 | 1.50 | 3.2 | 0.0 | 27.563 | 3.628 | 0.0 | 18.68 | 3.861 | 48.68 |
| 5.59 | 19.374 | 0.693 | 1.48 | 3.2 | 0.0 | 27.957 | 3.577 | 0.0 | 18.374 | 3.81 | 48.79 |
| 5.60 | 19.068 | 0.683 | 1.46 | 3.2 | 0.0 | 27.918 | 3.582 | 0.0 | 18.068 | 3.82 | 49.18 |
| 5.61 | 18.762 | 0.673 | 1.43 | 3.2 | 0.0 | 27.878 | 3.587 | 0.0 | 17.762 | 3.83 | 49.57 |
| 5.62 | 18.559 | 0.663 | 1.40 | 3.3 | 0.0 | 27.992 | 3.572 | 0.0 | 17.559 | 3.818 | 49.75 |
| 5.63 | 18.559 | 0.632 | 1.33 | 3.3 | 0.0 | 29.366 | 3.405 | 0.0 | 17.559 | 3.64 | 48.96 |
| 5.64 | 18.864 | 0.622 | 1.30 | 3.3 | 0.0 | 30.328 | 3.297 | 0.0 | 17.864 | 3.521 | 48.08 |
| 5.65 | 19.17 | 0.612 | 1.28 | 3.3 | 0.0 | 31.324 | 3.192 | 0.0 | 18.17 | 3.405 | 47.21 |
| 5.66 | 19.68 | 0.612 | 1.25 | 3.3 | 0.0 | 32.157 | 3.11 | 0.0 | 18.68 | 3.312 | 46.22 |
| 5.67 | 20.394 | 0.602 | 1.24 | 3.3 | 0.0 | 33.877 | 2.952 | 0.0 | 19.394 | 3.137 | 44.65 |
| 5.68 | 20.802 | 0.602 | 1.22 | 3.3 | 0.0 | 34.555 | 2.894 | 0.0 | 19.802 | 3.072 | 43.93 |
| 5.69 | 21.006 | 0.602 | 1.22 | 3.3 | 0.0 | 34.894 | 2.866 | 0.0 | 20.006 | 3.041 | 43.58 |
| 5.70 | 21.72 | 0.612 | 1.25 | 3.3 | 0.0 | 35.49 | 2.818 | 0.0 | 20.72 | 2.984 | 42.64 |
| 5.71 | 22.739 | 0.602 | 1.28 | 3.3 | 0.0 | 37.772 | 2.647 | 0.0 | 21.739 | 2.796 | 40.81 |
| 5.72 | 23.555 | 0.602 | 1.30 | 3.3 | 0.0 | 39.128 | 2.556 | 0.0 | 22.555 | 2.694 | 39.62 |
| 5.73 | 25.391 | 0.602 | 1.34 | 3.3 | 0.0 | 42.178 | 2.371 | 0.0 | 24.391 | 2.49 | 37.16 |
| 5.74 | 25.9 | 0.602 | 1.34 | 3.3 | 0.0 | 43.023 | 2.324 | 0.0 | 24.9 | 2.439 | 36.53 |
| 5.75 | 26.002 | 0.602 | 1.35 | 3.3 | 0.0 | 43.193 | 2.315 | 0.0 | 25.002 | 2.429 | 36.4 |
| 5.76 | 25.594 | 0.612 | 1.36 | 3.3 | 0.0 | 41.82 | 2.391 | 0.0 | 24.594 | 2.511 | 37.13 |
| 5.77 | 25.391 | 0.622 | 1.39 | 3.3 | 0.0 | 40.822 | 2.45 | 0.0 | 24.391 | 2.574 | 37.6 |
| 5.78 | 25.492 | 0.632 | 1.41 | 3.3 | 0.0 | 40.335 | 2.479 | 0.0 | 24.492 | 2.604 | 37.69 |
| 5.79 | 25.594 | 0.642 | 1.42 | 3.3 | 0.0 | 39.866 | 2.508 | 0.0 | 24.594 | 2.635 | 37.78 |
| 5.80 | 25.492 | 0.663 | 1.45 | 3.3 | 0.0 | 38.449 | 2.601 | 0.0 | 24.492 | 2.733 | 38.35 |
| 5.81 | 25.391 | 0.683 | 1.49 | 3.3 | 0.0 | 37.176 | 2.69 | 0.0 | 24.391 | 2.827 | 38.9 |
| 5.82 | 25.085 | 0.693 | 1.54 | 3.3 | 0.0 | 36.198 | 2.763 | 0.0 | 24.085 | 2.905 | 39.51 |
| 5.83 | 24.983 | 0.683 | 1.52 | 3.3 | 0.0 | 36.578 | 2.734 | 0.0 | 23.983 | 2.876 | 39.44 |
| 5.84 | 24.677 | 0.693 | 1.52 | 3.3 | 0.0 | 35.609 | 2.808 | 0.0 | 23.677 | 2.956 | 40.07 |
| 5.85 | 24.371 | 0.714 | 1.54 | 3.3 | 0.0 | 34.133 | 2.93 | 0.0 | 23.371 | 3.087 | 40.93 |
| 5.86 | 24.065 | 0.714 | 1.53 | 3.3 | 0.0 | 33.704 | 2.967 | 0.0 | 23.065 | 3.128 | 41.36 |
| 5.87 | 24.167 | 0.714 | 1.52 | 3.3 | 0.0 | 33.847 | 2.954 | 0.0 | 23.167 | 3.115 | 41.22 |
| 5.88 | 24.167 | 0.724 | 1.52 | 3.3 | 0.0 | 33.38 | 2.996 | 0.0 | 23.167 | 3.159 | 41.42 |
| 5.89 | 24.167 | 0.724 | 1.52 | 3.3 | 0.0 | 33.38 | 2.996 | 0.0 | 23.167 | 3.159 | 41.43 |
| 5.90 | 24.167 | 0.724 | 1.52 | 3.3 | 0.0 | 33.38 | 2.996 | 0.0 | 23.167 | 3.159 | 41.43 |
| 5.91 | 25.492 | 0.775 | 0.73 | 3.3 | 0.0 | 32.893 | 3.04 | 0.0 | 24.492 | 3.197 | 40.6 |
| 5.92 | 25.696 | 0.755 | 0.74 | 3.3 | 0.0 | 34.034 | 2.938 | 0.0 | 24.696 | 3.089 | 39.95 |
| 5.93 | 25.798 | 0.744 | 0.72 | 3.3 | 0.0 | 34.675 | 2.884 | 0.0 | 24.798 | 3.031 | 39.61 |
| 5.94 | 26.512 | 0.734 | 0.72 | 3.3 | 0.0 | 36.12 | 2.769 | 0.0 | 25.512 | 2.906 | 38.51 |
| 5.95 | 27.022 | 0.734 | 0.72 | 3.3 | 0.0 | 36.815 | 2.716 | 0.0 | 26.022 | 2.849 | 37.89 |
| 5.96 | 27.328 | 0.734 | 0.73 | 3.3 | 0.0 | 37.232 | 2.686 | 0.0 | 26.328 | 2.816 | 37.52 |
| 5.97 | 27.838 | 0.734 | 0.74 | 3.3 | 0.0 | 37.926 | 2.637 | 0.0 | 26.838 | 2.762 | 36.93 |
| 5.98 | 27.838 | 0.734 | 0.76 | 3.3 | 0.0 | 37.926 | 2.637 | 0.0 | 26.838 | 2.762 | 36.93 |
| 5.99 | 27.634 | 0.734 | 0.77 | 3.3 | 0.0 | 37.649 | 2.656 | 0.0 | 26.634 | 2.784 | 37.17 |
| 6.00 | 27.43 | 0.744 | 0.77 | 3.3 | 0.0 | 36.868 | 2.712 | 0.0 | 26.43 | 2.844 | 37.6 |
| 6.01 | 27.43 | 0.744 | 0.78 | 3.3 | 0.0 | 36.868 | 2.712 | 0.0 | 26.43 | 2.844 | 37.6 |
| 6.02 | 27.634 | 0.734 | 0.77 | 3.3 | 0.0 | 37.649 | 2.656 | 0.0 | 26.634 | 2.784 | 37.17 |
| 6.03 | 27.736 | 0.744 | 0.77 | 3.4 | 0.0 | 37.28 | 2.682 | 0.0 | 26.736 | 2.812 | 37.24 |
| 6.04 | 27.838 | 0.734 | 0.77 | 3.3 | 0.0 | 37.926 | 2.637 | 0.0 | 26.838 | 2.763 | 36.94 |
| 6.05 | 27.94 | 0.724 | 0.77 | 3.4 | 0.0 | 38.591 | 2.591 | 0.0 | 26.94 | 2.716 | 36.63 |
| 6.06 | 28.042 | 0.724 | 0.79 | 3.4 | 0.0 | 38.732 | 2.582 | 0.0 | 27.042 | 2.705 | 36.52 |
| 6.07 | 28.144 | 0.714 | 0.79 | 3.4 | 0.0 | 39.417 | 2.537 | 0.0 | 27.144 | 2.658 | 36.22 |

Prova n. 6

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 6.08 | 28.45 | 0.714 | 0.82 | 3.4 | 0.0 | 39.846 | 2.51 | 0.0 | 27.45 | 2.628 | 35.88 |
| 6.09 | 28.858 | 0.704 | 0.85 | 3.4 | 0.0 | 40.991 | 2.44 | 0.0 | 27.858 | 2.553 | 35.25 |
| 6.10 | 29.775 | 0.693 | 0.92 | 3.4 | 0.0 | 42.965 | 2.327 | 0.0 | 28.775 | 2.433 | 34.09 |
| 6.11 | 30.285 | 0.673 | 0.94 | 3.4 | 0.0 | 45.0 | 2.222 | 0.0 | 29.285 | 2.321 | 33.2 |
| 6.12 | 30.795 | 0.673 | 0.97 | 3.4 | 0.0 | 45.758 | 2.185 | 0.0 | 29.795 | 2.281 | 32.71 |
| 6.13 | 30.795 | 0.673 | 1.00 | 3.4 | 0.0 | 45.758 | 2.185 | 0.0 | 29.795 | 2.281 | 32.71 |
| 6.14 | 30.591 | 0.663 | 1.01 | 3.4 | 0.0 | 46.14 | 2.167 | 0.0 | 29.591 | 2.263 | 32.72 |
| 6.15 | 30.081 | 0.653 | 1.01 | 3.4 | 0.0 | 46.066 | 2.171 | 0.0 | 29.081 | 2.269 | 33.03 |
| 6.16 | 29.265 | 0.673 | 1.01 | 3.4 | 0.0 | 43.484 | 2.3 | 0.0 | 28.265 | 2.407 | 34.24 |
| 6.17 | 28.348 | 0.704 | 1.03 | 3.4 | 0.0 | 40.267 | 2.483 | 0.0 | 27.348 | 2.603 | 35.81 |
| 6.18 | 28.042 | 0.724 | 1.04 | 3.4 | 0.0 | 38.732 | 2.582 | 0.0 | 27.042 | 2.708 | 36.53 |
| 6.19 | 27.838 | 0.744 | 1.07 | 3.4 | 0.0 | 37.417 | 2.673 | 0.0 | 26.838 | 2.804 | 37.14 |
| 6.20 | 27.838 | 0.765 | 1.09 | 3.4 | 0.0 | 36.39 | 2.748 | 0.0 | 26.838 | 2.884 | 37.53 |
| 6.21 | 27.838 | 0.785 | 1.09 | 3.4 | 0.0 | 35.462 | 2.82 | 0.0 | 26.838 | 2.959 | 37.89 |
| 6.22 | 28.042 | 0.785 | 1.11 | 3.4 | 0.0 | 35.722 | 2.799 | 0.0 | 27.042 | 2.937 | 37.66 |
| 6.23 | 27.94 | 0.795 | 1.12 | 3.4 | 0.0 | 35.145 | 2.845 | 0.0 | 26.94 | 2.986 | 37.96 |
| 6.24 | 27.736 | 0.806 | 1.14 | 3.4 | 0.0 | 34.412 | 2.906 | 0.0 | 26.736 | 3.051 | 38.39 |
| 6.25 | 27.736 | 0.816 | 1.16 | 3.4 | 0.0 | 33.99 | 2.942 | 0.0 | 26.736 | 3.089 | 38.57 |
| 6.26 | 28.959 | 0.816 | 1.17 | 3.4 | 0.0 | 35.489 | 2.818 | 0.0 | 27.959 | 2.953 | 37.17 |
| 6.27 | 29.367 | 0.836 | 1.19 | 3.4 | 0.0 | 35.128 | 2.847 | 0.0 | 28.367 | 2.981 | 37.06 |
| 6.28 | 28.858 | 0.857 | 1.21 | 3.4 | 0.0 | 33.673 | 2.97 | 0.0 | 27.858 | 3.113 | 37.98 |
| 6.29 | 29.163 | 0.857 | 1.18 | 3.4 | 0.0 | 34.029 | 2.939 | 0.0 | 28.163 | 3.079 | 37.64 |
| 6.30 | 30.081 | 0.836 | 1.19 | 3.4 | 0.0 | 35.982 | 2.779 | 0.0 | 29.081 | 2.908 | 36.3 |
| 6.31 | 29.469 | 0.816 | 1.20 | 3.4 | 0.0 | 36.114 | 2.769 | 0.0 | 28.469 | 2.9 | 36.62 |
| 6.32 | 29.265 | 0.785 | 1.19 | 3.4 | 0.0 | 37.28 | 2.682 | 0.0 | 28.265 | 2.81 | 36.3 |
| 6.33 | 28.756 | 0.765 | 1.18 | 3.4 | 0.0 | 37.59 | 2.66 | 0.0 | 27.756 | 2.79 | 36.5 |
| 6.34 | 28.246 | 0.755 | 1.18 | 3.4 | 0.0 | 37.412 | 2.673 | 0.0 | 27.246 | 2.806 | 36.89 |
| 6.35 | 28.246 | 0.744 | 1.18 | 3.4 | 0.0 | 37.965 | 2.634 | 0.0 | 27.246 | 2.765 | 36.69 |
| 6.36 | 28.654 | 0.724 | 1.19 | 3.4 | 0.0 | 39.577 | 2.527 | 0.0 | 27.654 | 2.651 | 35.87 |
| 6.37 | 28.858 | 0.714 | 1.20 | 3.4 | 0.0 | 40.417 | 2.474 | 0.0 | 27.858 | 2.595 | 35.46 |
| 6.38 | 29.265 | 0.714 | 1.21 | 3.4 | 0.0 | 40.987 | 2.44 | 0.0 | 28.265 | 2.557 | 35.03 |
| 6.39 | 29.469 | 0.704 | 1.21 | 3.4 | 0.0 | 41.859 | 2.389 | 0.0 | 28.469 | 2.503 | 34.63 |
| 6.40 | 29.469 | 0.693 | 1.21 | 3.4 | 0.0 | 42.524 | 2.352 | 0.0 | 28.469 | 2.465 | 34.43 |
| 6.41 | 29.367 | 0.693 | 1.21 | 3.4 | 0.0 | 42.377 | 2.36 | 0.0 | 28.367 | 2.474 | 34.53 |
| 6.42 | 29.265 | 0.693 | 1.22 | 3.4 | 0.0 | 42.229 | 2.368 | 0.0 | 28.265 | 2.483 | 34.64 |
| 6.43 | 29.265 | 0.704 | 1.24 | 3.4 | 0.0 | 41.57 | 2.406 | 0.0 | 28.265 | 2.522 | 34.85 |
| 6.44 | 29.469 | 0.724 | 1.26 | 3.4 | 0.0 | 40.703 | 2.457 | 0.0 | 28.469 | 2.576 | 35.01 |
| 6.45 | 29.877 | 0.724 | 1.28 | 3.4 | 0.0 | 41.267 | 2.423 | 0.0 | 28.877 | 2.539 | 34.58 |
| 6.46 | 30.081 | 0.724 | 1.28 | 3.4 | 0.0 | 41.548 | 2.407 | 0.0 | 29.081 | 2.521 | 34.38 |
| 6.47 | 30.387 | 0.734 | 1.30 | 3.4 | 0.0 | 41.399 | 2.416 | 0.0 | 29.387 | 2.529 | 34.25 |
| 6.48 | 30.489 | 0.734 | 1.32 | 3.4 | 0.0 | 41.538 | 2.407 | 0.0 | 29.489 | 2.52 | 34.15 |
| 6.49 | 30.693 | 0.744 | 1.33 | 3.4 | 0.0 | 41.254 | 2.424 | 0.0 | 29.693 | 2.537 | 34.12 |
| 6.50 | 31.407 | 0.744 | 1.32 | 3.4 | 0.0 | 42.214 | 2.369 | 0.0 | 30.407 | 2.477 | 33.43 |
| 6.51 | 32.426 | 0.724 | 1.32 | 3.4 | 0.0 | 44.787 | 2.233 | 0.0 | 31.426 | 2.331 | 32.14 |
| 6.52 | 33.344 | 0.734 | 1.35 | 3.4 | 0.0 | 45.428 | 2.201 | 0.0 | 32.344 | 2.296 | 31.51 |
| 6.53 | 35.791 | 0.734 | 1.46 | 3.4 | 0.0 | 48.762 | 2.051 | 0.0 | 34.791 | 2.133 | 29.52 |
| 6.54 | 38.647 | 0.724 | 1.52 | 3.4 | 0.0 | 53.38 | 1.873 | 0.0 | 37.647 | 1.943 | 27.3 |
| 6.55 | 41.706 | 0.724 | 1.57 | 3.4 | 0.0 | 57.605 | 1.736 | 0.0 | 40.706 | 1.795 | 25.35 |
| 6.56 | 42.623 | 0.724 | 1.60 | 3.4 | 0.0 | 58.872 | 1.699 | 0.0 | 41.623 | 1.756 | 24.81 |
| 6.57 | 42.725 | 0.734 | 1.61 | 3.4 | 0.0 | 58.208 | 1.718 | 0.0 | 41.725 | 1.776 | 24.9 |
| 6.58 | 42.521 | 0.755 | 1.63 | 3.4 | 0.0 | 56.319 | 1.776 | 0.0 | 41.521 | 1.835 | 25.32 |
| 6.59 | 43.133 | 0.785 | 1.64 | 3.4 | 0.0 | 54.946 | 1.82 | 0.0 | 42.133 | 1.881 | 25.38 |
| 6.60 | 40.992 | 0.857 | 1.69 | 3.4 | 0.0 | 47.832 | 2.091 | 0.0 | 39.992 | 2.164 | 27.68 |
| 6.61 | 39.156 | 0.948 | 1.82 | 3.4 | 0.0 | 41.304 | 2.421 | 0.0 | 38.156 | 2.51 | 30.15 |
| 6.62 | 37.525 | 1.04 | 1.98 | 3.4 | 0.0 | 36.082 | 2.771 | 0.0 | 36.525 | 2.879 | 32.56 |
| 6.63 | 36.709 | 1.081 | 2.06 | 3.4 | 0.0 | 33.958 | 2.945 | 0.0 | 35.709 | 3.061 | 33.74 |
| 6.64 | 36.505 | 1.081 | 2.09 | 3.4 | 0.0 | 33.77 | 2.961 | 0.0 | 35.505 | 3.079 | 33.9 |
| 6.65 | 36.505 | 1.081 | 2.13 | 3.4 | 0.0 | 33.77 | 2.961 | 0.0 | 35.505 | 3.079 | 33.9 |
| 6.66 | 36.403 | 1.071 | 2.16 | 3.4 | 0.0 | 33.99 | 2.942 | 0.0 | 35.403 | 3.06 | 33.86 |
| 6.67 | 36.403 | 1.06 | 2.20 | 3.4 | 0.0 | 34.342 | 2.912 | 0.0 | 35.403 | 3.029 | 33.72 |
| 6.68 | 35.995 | 1.06 | 2.26 | 3.4 | 0.0 | 33.958 | 2.945 | 0.0 | 34.995 | 3.065 | 34.06 |
| 6.69 | 35.893 | 1.06 | 2.34 | 3.5 | 0.0 | 33.861 | 2.953 | 0.0 | 34.893 | 3.074 | 34.15 |
| 6.70 | 35.893 | 1.06 | 2.41 | 3.5 | 0.0 | 33.861 | 2.953 | 0.0 | 34.893 | 3.074 | 34.15 |
| 6.71 | 35.995 | 1.05 | 2.49 | 3.5 | 0.0 | 34.281 | 2.917 | 0.0 | 34.995 | 3.036 | 33.94 |
| 6.72 | 36.199 | 1.05 | 2.59 | 3.5 | 0.0 | 34.475 | 2.901 | 0.0 | 35.199 | 3.019 | 33.77 |
| 6.73 | 36.097 | 1.04 | 2.66 | 3.5 | 0.0 | 34.709 | 2.881 | 0.0 | 35.097 | 2.999 | 33.72 |

Prova n. 6

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|--------|-------|-----|--------|-------|-------|
| 6.74 | 36.301 | 1.01 | 2.70 | 3.5 | 0.0 | 35.942 | 2.782 | 0.0 | 35.301 | 2.896 | 33.16 |
| 6.75 | 36.811 | 0.887 | 2.77 | 3.5 | 0.0 | 41.501 | 2.41 | 0.0 | 35.811 | 2.506 | 31.06 |
| 6.76 | 36.913 | 0.846 | 2.80 | 3.5 | 0.0 | 43.632 | 2.292 | 0.0 | 35.913 | 2.384 | 30.39 |
| 6.77 | 37.423 | 0.826 | 2.83 | 3.5 | 0.0 | 45.306 | 2.207 | 0.0 | 36.423 | 2.295 | 29.72 |
| 6.78 | 37.525 | 0.795 | 2.86 | 3.4 | 0.0 | 47.201 | 2.119 | 0.0 | 36.525 | 2.202 | 29.18 |
| 6.79 | 37.831 | 0.775 | 2.90 | 3.4 | 0.0 | 48.814 | 2.049 | 0.0 | 36.831 | 2.129 | 28.66 |
| 6.80 | 38.035 | 0.775 | 2.91 | 3.4 | 0.0 | 49.077 | 2.038 | 0.0 | 37.035 | 2.117 | 28.52 |
| 6.81 | 38.341 | 0.765 | 2.95 | 3.4 | 0.0 | 50.119 | 1.995 | 0.0 | 37.341 | 2.073 | 28.15 |
| 6.82 | 38.749 | 0.755 | 2.97 | 3.4 | 0.0 | 51.323 | 1.948 | 0.0 | 37.749 | 2.023 | 27.72 |
| 6.83 | 39.156 | 0.755 | 3.06 | 3.5 | 0.0 | 51.862 | 1.928 | 0.0 | 38.156 | 2.002 | 27.44 |
| 6.84 | 39.462 | 0.755 | 3.08 | 3.4 | 0.0 | 52.268 | 1.913 | 0.0 | 38.462 | 1.986 | 27.24 |
| 6.85 | 39.462 | 0.755 | 3.12 | 3.4 | 0.0 | 52.268 | 1.913 | 0.0 | 38.462 | 1.986 | 27.24 |
| 6.86 | 39.462 | 0.765 | 3.16 | 3.5 | 0.0 | 51.584 | 1.939 | 0.0 | 38.462 | 2.012 | 27.39 |
| 6.87 | 39.564 | 0.775 | 3.21 | 3.5 | 0.0 | 51.05 | 1.959 | 0.0 | 38.564 | 2.033 | 27.47 |
| 6.88 | 39.768 | 0.775 | 3.25 | 3.4 | 0.0 | 51.314 | 1.949 | 0.0 | 38.768 | 2.023 | 27.34 |
| 6.89 | 39.768 | 0.775 | 3.25 | 3.4 | 0.0 | 51.314 | 1.949 | 0.0 | 38.768 | 2.023 | 27.34 |
| 6.90 | 39.768 | 0.775 | 3.25 | 3.4 | 0.0 | 51.314 | 1.949 | 0.0 | 38.768 | 2.023 | 27.34 |
| 6.91 | 41.094 | 0.897 | 8.99 | 3.4 | 0.0 | 45.813 | 2.183 | 0.0 | 40.094 | 2.263 | 28.17 |
| 6.92 | 40.176 | 0.908 | 9.34 | 3.5 | 0.0 | 44.247 | 2.26 | 0.0 | 39.176 | 2.345 | 28.93 |
| 6.93 | 40.074 | 0.918 | 9.47 | 3.5 | 0.0 | 43.654 | 2.291 | 0.0 | 39.074 | 2.377 | 29.13 |
| 6.94 | 40.278 | 0.908 | 9.58 | 3.4 | 0.0 | 44.359 | 2.254 | 0.0 | 39.278 | 2.339 | 28.86 |
| 6.95 | 40.38 | 0.918 | 9.63 | 3.4 | 0.0 | 43.987 | 2.273 | 0.0 | 39.38 | 2.359 | 28.92 |
| 6.96 | 35.282 | 0.918 | 9.69 | 3.5 | 0.0 | 38.434 | 2.602 | 0.0 | 34.282 | 2.715 | 32.75 |
| 6.97 | 40.686 | 0.918 | 9.80 | 3.5 | 0.0 | 44.32 | 2.256 | 0.0 | 39.686 | 2.341 | 28.72 |
| 6.98 | 40.686 | 0.918 | 9.88 | 3.5 | 0.0 | 44.32 | 2.256 | 0.0 | 39.686 | 2.341 | 28.72 |
| 6.99 | 40.584 | 0.918 | 9.92 | 3.5 | 0.0 | 44.209 | 2.262 | 0.0 | 39.584 | 2.347 | 28.79 |
| 7.00 | 40.38 | 0.908 | 9.94 | 3.4 | 0.0 | 44.471 | 2.249 | 0.0 | 39.38 | 2.334 | 28.8 |
| 7.01 | 40.89 | 0.887 | 9.98 | 3.5 | 0.0 | 46.099 | 2.169 | 0.0 | 39.89 | 2.25 | 28.18 |
| 7.02 | 40.686 | 0.887 | 10.00 | 3.5 | 0.0 | 45.869 | 2.18 | 0.0 | 39.686 | 2.262 | 28.31 |
| 7.03 | 40.788 | 0.887 | 10.02 | 3.5 | 0.0 | 45.984 | 2.175 | 0.0 | 39.788 | 2.257 | 28.25 |
| 7.04 | 40.38 | 0.887 | 10.03 | 3.5 | 0.0 | 45.524 | 2.197 | 0.0 | 39.38 | 2.28 | 28.52 |
| 7.05 | 40.38 | 0.867 | 10.06 | 3.5 | 0.0 | 46.574 | 2.147 | 0.0 | 39.38 | 2.229 | 28.25 |
| 7.06 | 40.788 | 0.857 | 10.10 | 3.4 | 0.0 | 47.594 | 2.101 | 0.0 | 39.788 | 2.181 | 27.84 |
| 7.07 | 40.686 | 0.857 | 10.15 | 3.4 | 0.0 | 47.475 | 2.106 | 0.0 | 39.686 | 2.186 | 27.91 |
| 7.08 | 40.38 | 0.846 | 10.20 | 3.4 | 0.0 | 47.73 | 2.095 | 0.0 | 39.38 | 2.175 | 27.96 |
| 7.09 | 40.278 | 0.836 | 10.22 | 3.4 | 0.0 | 48.179 | 2.076 | 0.0 | 39.278 | 2.155 | 27.89 |
| 7.10 | 40.38 | 0.846 | 10.23 | 3.4 | 0.0 | 47.73 | 2.095 | 0.0 | 39.38 | 2.176 | 27.96 |
| 7.11 | 40.176 | 0.836 | 10.24 | 3.4 | 0.0 | 48.057 | 2.081 | 0.0 | 39.176 | 2.161 | 27.96 |
| 7.12 | 40.074 | 0.836 | 10.25 | 3.4 | 0.0 | 47.935 | 2.086 | 0.0 | 39.074 | 2.167 | 28.03 |
| 7.13 | 39.87 | 0.836 | 10.25 | 3.4 | 0.0 | 47.691 | 2.097 | 0.0 | 38.87 | 2.179 | 28.16 |
| 7.14 | 39.258 | 0.836 | 10.25 | 3.4 | 0.0 | 46.959 | 2.13 | 0.0 | 38.258 | 2.214 | 28.58 |
| 7.15 | 39.055 | 0.826 | 10.26 | 3.4 | 0.0 | 47.282 | 2.115 | 0.0 | 38.055 | 2.2 | 28.58 |
| 7.16 | 39.055 | 0.826 | 10.28 | 3.4 | 0.0 | 47.282 | 2.115 | 0.0 | 38.055 | 2.2 | 28.58 |
| 7.17 | 38.953 | 0.826 | 10.29 | 3.4 | 0.0 | 47.159 | 2.121 | 0.0 | 37.953 | 2.206 | 28.65 |
| 7.18 | 39.258 | 0.826 | 10.33 | 3.4 | 0.0 | 47.528 | 2.104 | 0.0 | 38.258 | 2.188 | 28.44 |
| 7.19 | 40.278 | 0.826 | 10.43 | 3.4 | 0.0 | 48.763 | 2.051 | 0.0 | 39.278 | 2.131 | 27.75 |
| 7.20 | 40.89 | 0.816 | 10.51 | 3.4 | 0.0 | 50.11 | 1.996 | 0.0 | 39.89 | 2.072 | 27.22 |
| 7.21 | 41.706 | 0.816 | 10.62 | 3.4 | 0.0 | 51.11 | 1.957 | 0.0 | 40.706 | 2.03 | 26.7 |
| 7.22 | 41.604 | 0.816 | 10.64 | 3.4 | 0.0 | 50.985 | 1.961 | 0.0 | 40.604 | 2.036 | 26.77 |
| 7.23 | 41.4 | 0.826 | 10.62 | 3.4 | 0.0 | 50.121 | 1.995 | 0.0 | 40.4 | 2.071 | 27.03 |
| 7.24 | 41.298 | 0.826 | 10.63 | 3.4 | 0.0 | 49.998 | 2.0 | 0.0 | 40.298 | 2.077 | 27.1 |
| 7.25 | 41.808 | 0.826 | 10.64 | 3.4 | 0.0 | 50.615 | 1.976 | 0.0 | 40.808 | 2.051 | 26.78 |
| 7.26 | 42.929 | 0.836 | 10.75 | 3.4 | 0.0 | 51.35 | 1.947 | 0.0 | 41.929 | 2.019 | 26.24 |
| 7.27 | 43.643 | 0.846 | 10.86 | 3.4 | 0.0 | 51.587 | 1.938 | 0.0 | 42.643 | 2.009 | 25.95 |
| 7.28 | 42.827 | 0.877 | 11.06 | 3.4 | 0.0 | 48.834 | 2.048 | 0.0 | 41.827 | 2.124 | 26.84 |
| 7.29 | 43.031 | 0.887 | 11.22 | 3.4 | 0.0 | 48.513 | 2.061 | 0.0 | 42.031 | 2.138 | 26.85 |
| 7.30 | 43.439 | 0.887 | 11.35 | 3.4 | 0.0 | 48.973 | 2.042 | 0.0 | 42.439 | 2.117 | 26.61 |
| 7.31 | 44.459 | 0.877 | 11.51 | 3.4 | 0.0 | 50.694 | 1.973 | 0.0 | 43.459 | 2.043 | 25.88 |
| 7.32 | 44.255 | 0.897 | 11.61 | 3.4 | 0.0 | 49.337 | 2.027 | 0.0 | 43.255 | 2.1 | 26.26 |
| 7.33 | 43.847 | 0.928 | 11.77 | 3.4 | 0.0 | 47.249 | 2.116 | 0.0 | 42.847 | 2.194 | 26.89 |
| 7.34 | 43.541 | 0.928 | 11.80 | 3.4 | 0.0 | 46.919 | 2.131 | 0.0 | 42.541 | 2.21 | 27.07 |
| 7.35 | 44.663 | 0.938 | 11.81 | 3.4 | 0.0 | 47.615 | 2.1 | 0.0 | 43.663 | 2.176 | 26.53 |
| 7.36 | 44.765 | 0.989 | 11.79 | 3.4 | 0.0 | 45.263 | 2.209 | 0.0 | 43.765 | 2.289 | 27.09 |
| 7.37 | 44.561 | 1.03 | 11.79 | 3.4 | 0.0 | 43.263 | 2.311 | 0.0 | 43.561 | 2.395 | 27.69 |
| 7.38 | 44.051 | 1.071 | 11.84 | 3.4 | 0.0 | 41.131 | 2.431 | 0.0 | 43.051 | 2.52 | 28.48 |
| 7.39 | 43.439 | 1.101 | 11.92 | 3.4 | 0.0 | 39.454 | 2.535 | 0.0 | 42.439 | 2.629 | 29.2 |

Prova n. 6

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|--------|-------|-----|--------|-------|-------|
| 7.40 | 43.337 | 1.101 | 11.99 | 3.4 | 0.0 | 39.361 | 2.541 | 0.0 | 42.337 | 2.635 | 29.26 |
| 7.41 | 43.133 | 1.091 | 12.04 | 3.4 | 0.0 | 39.535 | 2.529 | 0.0 | 42.133 | 2.624 | 29.28 |
| 7.42 | 43.031 | 1.071 | 12.09 | 3.4 | 0.0 | 40.178 | 2.489 | 0.0 | 42.031 | 2.583 | 29.11 |
| 7.43 | 42.827 | 1.05 | 12.10 | 3.4 | 0.0 | 40.788 | 2.452 | 0.0 | 41.827 | 2.545 | 29 |
| 7.44 | 42.827 | 1.04 | 12.11 | 3.4 | 0.0 | 41.18 | 2.428 | 0.0 | 41.827 | 2.521 | 28.88 |
| 7.45 | 42.725 | 1.04 | 12.13 | 3.4 | 0.0 | 41.082 | 2.434 | 0.0 | 41.725 | 2.527 | 28.95 |
| 7.46 | 42.623 | 1.02 | 12.16 | 3.4 | 0.0 | 41.787 | 2.393 | 0.0 | 41.623 | 2.485 | 28.77 |
| 7.47 | 42.725 | 1.01 | 12.17 | 3.4 | 0.0 | 42.302 | 2.364 | 0.0 | 41.725 | 2.454 | 28.59 |
| 7.48 | 42.623 | 1.02 | 12.21 | 3.4 | 0.0 | 41.787 | 2.393 | 0.0 | 41.623 | 2.485 | 28.77 |
| 7.49 | 42.725 | 1.03 | 12.32 | 3.4 | 0.0 | 41.481 | 2.411 | 0.0 | 41.725 | 2.503 | 28.83 |
| 7.50 | 42.521 | 1.01 | 12.31 | 3.4 | 0.0 | 42.1 | 2.375 | 0.0 | 41.521 | 2.467 | 28.72 |
| 7.51 | 42.623 | 0.979 | 12.30 | 3.4 | 0.0 | 43.537 | 2.297 | 0.0 | 41.623 | 2.385 | 28.28 |
| 7.52 | 42.521 | 0.948 | 12.30 | 3.4 | 0.0 | 44.853 | 2.229 | 0.0 | 41.521 | 2.316 | 27.96 |
| 7.53 | 42.42 | 0.918 | 12.30 | 3.4 | 0.0 | 46.209 | 2.164 | 0.0 | 41.42 | 2.248 | 27.64 |
| 7.54 | 42.521 | 0.887 | 12.29 | 3.4 | 0.0 | 47.938 | 2.086 | 0.0 | 41.521 | 2.167 | 27.18 |
| 7.55 | 42.216 | 0.877 | 12.31 | 3.4 | 0.0 | 48.137 | 2.077 | 0.0 | 41.216 | 2.159 | 27.23 |
| 7.56 | 42.216 | 0.887 | 12.32 | 3.4 | 0.0 | 47.594 | 2.101 | 0.0 | 41.216 | 2.183 | 27.37 |
| 7.57 | 42.216 | 0.887 | 12.33 | 3.3 | 0.0 | 47.594 | 2.101 | 0.0 | 41.216 | 2.184 | 27.37 |
| 7.58 | 42.42 | 0.887 | 12.34 | 3.3 | 0.0 | 47.824 | 2.091 | 0.0 | 41.42 | 2.173 | 27.24 |
| 7.59 | 42.42 | 0.887 | 12.35 | 3.3 | 0.0 | 47.824 | 2.091 | 0.0 | 41.42 | 2.173 | 27.24 |
| 7.60 | 42.216 | 0.887 | 12.35 | 3.3 | 0.0 | 47.594 | 2.101 | 0.0 | 41.216 | 2.184 | 27.37 |
| 7.61 | 42.623 | 0.897 | 12.38 | 3.3 | 0.0 | 47.517 | 2.104 | 0.0 | 41.623 | 2.187 | 27.25 |
| 7.62 | 42.216 | 0.887 | 12.36 | 3.3 | 0.0 | 47.594 | 2.101 | 0.0 | 41.216 | 2.184 | 27.37 |
| 7.63 | 42.42 | 0.887 | 12.38 | 3.3 | 0.0 | 47.824 | 2.091 | 0.0 | 41.42 | 2.173 | 27.24 |
| 7.64 | 42.42 | 0.908 | 12.39 | 3.3 | 0.0 | 46.718 | 2.14 | 0.0 | 41.42 | 2.225 | 27.52 |
| 7.65 | 42.114 | 0.918 | 12.39 | 3.3 | 0.0 | 45.876 | 2.18 | 0.0 | 41.114 | 2.266 | 27.84 |
| 7.66 | 42.318 | 0.918 | 12.41 | 3.3 | 0.0 | 46.098 | 2.169 | 0.0 | 41.318 | 2.255 | 27.71 |
| 7.67 | 42.521 | 0.918 | 12.43 | 3.3 | 0.0 | 46.319 | 2.159 | 0.0 | 41.521 | 2.244 | 27.58 |
| 7.68 | 42.318 | 0.918 | 12.44 | 3.3 | 0.0 | 46.098 | 2.169 | 0.0 | 41.318 | 2.255 | 27.71 |
| 7.69 | 42.012 | 0.918 | 12.43 | 3.3 | 0.0 | 45.765 | 2.185 | 0.0 | 41.012 | 2.273 | 27.9 |
| 7.70 | 41.706 | 0.918 | 12.43 | 3.3 | 0.0 | 45.431 | 2.201 | 0.0 | 40.706 | 2.29 | 28.1 |
| 7.71 | 41.4 | 0.918 | 12.43 | 3.3 | 0.0 | 45.098 | 2.217 | 0.0 | 40.4 | 2.308 | 28.3 |
| 7.72 | 41.706 | 0.908 | 12.44 | 3.3 | 0.0 | 45.932 | 2.177 | 0.0 | 40.706 | 2.265 | 27.97 |
| 7.73 | 41.91 | 0.897 | 12.46 | 3.3 | 0.0 | 46.722 | 2.14 | 0.0 | 40.91 | 2.227 | 27.7 |
| 7.74 | 42.012 | 0.897 | 12.47 | 3.3 | 0.0 | 46.836 | 2.135 | 0.0 | 41.012 | 2.221 | 27.64 |
| 7.75 | 42.114 | 0.897 | 12.50 | 3.3 | 0.0 | 46.95 | 2.13 | 0.0 | 41.114 | 2.216 | 27.57 |
| 7.76 | 42.114 | 0.897 | 12.50 | 3.3 | 0.0 | 46.95 | 2.13 | 0.0 | 41.114 | 2.216 | 27.57 |
| 7.77 | 42.42 | 0.887 | 12.53 | 3.3 | 0.0 | 47.824 | 2.091 | 0.0 | 41.42 | 2.175 | 27.25 |
| 7.78 | 42.623 | 0.887 | 12.54 | 3.3 | 0.0 | 48.053 | 2.081 | 0.0 | 41.623 | 2.164 | 27.13 |
| 7.79 | 42.42 | 0.887 | 12.54 | 3.3 | 0.0 | 47.824 | 2.091 | 0.0 | 41.42 | 2.175 | 27.25 |
| 7.80 | 41.91 | 0.887 | 12.53 | 3.3 | 0.0 | 47.249 | 2.116 | 0.0 | 40.91 | 2.203 | 27.57 |
| 7.81 | 42.012 | 0.887 | 12.53 | 3.3 | 0.0 | 47.364 | 2.111 | 0.0 | 41.012 | 2.197 | 27.51 |
| 7.82 | 41.91 | 0.887 | 12.54 | 3.3 | 0.0 | 47.249 | 2.116 | 0.0 | 40.91 | 2.203 | 27.57 |
| 7.83 | 41.706 | 0.887 | 12.52 | 3.3 | 0.0 | 47.019 | 2.127 | 0.0 | 40.706 | 2.214 | 27.7 |
| 7.84 | 41.706 | 0.877 | 12.53 | 3.3 | 0.0 | 47.555 | 2.103 | 0.0 | 40.706 | 2.189 | 27.57 |
| 7.85 | 41.91 | 0.877 | 12.55 | 3.3 | 0.0 | 47.788 | 2.093 | 0.0 | 40.91 | 2.178 | 27.44 |
| 7.86 | 42.012 | 0.887 | 12.56 | 3.3 | 0.0 | 47.364 | 2.111 | 0.0 | 41.012 | 2.198 | 27.51 |
| 7.87 | 42.012 | 0.897 | 12.58 | 3.3 | 0.0 | 46.836 | 2.135 | 0.0 | 41.012 | 2.223 | 27.64 |
| 7.88 | 37.525 | 0.704 | 12.13 | 3.3 | 0.0 | 53.303 | 1.876 | 0.0 | 36.525 | 1.963 | 27.84 |
| 7.89 | 37.525 | 0.704 | 12.13 | 3.3 | 0.0 | 53.303 | 1.876 | 0.0 | 36.525 | 1.963 | 27.84 |
| 7.90 | 37.525 | 0.704 | 12.13 | 3.3 | 0.0 | 53.303 | 1.876 | 0.0 | 36.525 | 1.963 | 27.84 |
| 7.91 | 42.827 | 1.01 | 13.67 | 3.3 | 0.0 | 42.403 | 2.358 | 0.0 | 41.827 | 2.454 | 28.55 |
| 7.92 | 42.521 | 1.01 | 13.70 | 3.3 | 0.0 | 42.1 | 2.375 | 0.0 | 41.521 | 2.472 | 28.75 |
| 7.93 | 42.42 | 0.999 | 13.70 | 3.3 | 0.0 | 42.462 | 2.355 | 0.0 | 41.42 | 2.451 | 28.68 |
| 7.94 | 42.521 | 0.999 | 13.72 | 3.2 | 0.0 | 42.564 | 2.349 | 0.0 | 41.521 | 2.446 | 28.61 |
| 7.95 | 42.521 | 0.989 | 13.73 | 3.2 | 0.0 | 42.994 | 2.326 | 0.0 | 41.521 | 2.421 | 28.49 |
| 7.96 | 42.521 | 0.979 | 13.72 | 3.2 | 0.0 | 43.433 | 2.302 | 0.0 | 41.521 | 2.397 | 28.37 |
| 7.97 | 42.114 | 0.979 | 13.70 | 3.2 | 0.0 | 43.017 | 2.325 | 0.0 | 41.114 | 2.421 | 28.63 |
| 7.98 | 42.114 | 0.979 | 13.70 | 3.2 | 0.0 | 43.017 | 2.325 | 0.0 | 41.114 | 2.421 | 28.63 |
| 7.99 | 42.012 | 0.969 | 13.67 | 3.2 | 0.0 | 43.356 | 2.306 | 0.0 | 41.012 | 2.403 | 28.57 |
| 8.00 | 42.012 | 0.959 | 13.66 | 3.2 | 0.0 | 43.808 | 2.283 | 0.0 | 41.012 | 2.378 | 28.45 |
| 8.01 | 41.604 | 0.948 | 13.66 | 3.2 | 0.0 | 43.886 | 2.279 | 0.0 | 40.604 | 2.375 | 28.57 |
| 8.02 | 41.706 | 0.938 | 13.67 | 3.2 | 0.0 | 44.463 | 2.249 | 0.0 | 40.706 | 2.344 | 28.38 |
| 8.03 | 41.91 | 0.928 | 13.68 | 3.2 | 0.0 | 45.162 | 2.214 | 0.0 | 40.91 | 2.307 | 28.12 |
| 8.04 | 41.91 | 0.918 | 13.68 | 3.2 | 0.0 | 45.654 | 2.19 | 0.0 | 40.91 | 2.283 | 27.99 |
| 8.05 | 42.216 | 0.908 | 13.71 | 3.2 | 0.0 | 46.493 | 2.151 | 0.0 | 41.216 | 2.241 | 27.67 |

Prova n. 6

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|--------|-------|-----|--------|-------|-------|
| 8.06 | 42.42 | 0.897 | 13.71 | 3.2 | 0.0 | 47.291 | 2.115 | 0.0 | 41.42 | 2.203 | 27.4 |
| 8.07 | 42.216 | 0.887 | 13.70 | 3.2 | 0.0 | 47.594 | 2.101 | 0.0 | 41.216 | 2.189 | 27.4 |
| 8.08 | 42.216 | 0.877 | 13.70 | 3.2 | 0.0 | 48.137 | 2.077 | 0.0 | 41.216 | 2.165 | 27.26 |
| 8.09 | 41.91 | 0.877 | 13.70 | 3.2 | 0.0 | 47.788 | 2.093 | 0.0 | 40.91 | 2.181 | 27.46 |
| 8.10 | 42.216 | 0.877 | 13.70 | 3.2 | 0.0 | 48.137 | 2.077 | 0.0 | 41.216 | 2.165 | 27.27 |
| 8.11 | 42.42 | 0.877 | 13.73 | 3.2 | 0.0 | 48.369 | 2.067 | 0.0 | 41.42 | 2.154 | 27.14 |
| 8.12 | 42.521 | 0.877 | 13.73 | 3.2 | 0.0 | 48.485 | 2.063 | 0.0 | 41.521 | 2.149 | 27.08 |
| 8.13 | 42.623 | 0.877 | 13.76 | 3.2 | 0.0 | 48.601 | 2.058 | 0.0 | 41.623 | 2.144 | 27.02 |
| 8.14 | 42.827 | 0.877 | 13.77 | 3.2 | 0.0 | 48.834 | 2.048 | 0.0 | 41.827 | 2.133 | 26.89 |
| 8.15 | 42.929 | 0.877 | 13.78 | 3.2 | 0.0 | 48.95 | 2.043 | 0.0 | 41.929 | 2.128 | 26.83 |
| 8.16 | 42.827 | 0.887 | 13.79 | 3.2 | 0.0 | 48.283 | 2.071 | 0.0 | 41.827 | 2.158 | 27.02 |
| 8.17 | 42.827 | 0.887 | 13.81 | 3.2 | 0.0 | 48.283 | 2.071 | 0.0 | 41.827 | 2.158 | 27.03 |
| 8.18 | 43.031 | 0.897 | 13.83 | 3.2 | 0.0 | 47.972 | 2.085 | 0.0 | 42.031 | 2.171 | 27.03 |
| 8.19 | 43.439 | 0.897 | 13.88 | 3.2 | 0.0 | 48.427 | 2.065 | 0.0 | 42.439 | 2.15 | 26.79 |
| 8.20 | 44.051 | 0.897 | 13.95 | 3.2 | 0.0 | 49.109 | 2.036 | 0.0 | 43.051 | 2.119 | 26.42 |
| 8.21 | 44.255 | 0.897 | 13.99 | 3.2 | 0.0 | 49.337 | 2.027 | 0.0 | 43.255 | 2.109 | 26.31 |
| 8.22 | 44.255 | 0.897 | 14.00 | 3.2 | 0.0 | 49.337 | 2.027 | 0.0 | 43.255 | 2.109 | 26.31 |
| 8.23 | 43.745 | 0.897 | 13.96 | 3.2 | 0.0 | 48.768 | 2.051 | 0.0 | 42.745 | 2.135 | 26.61 |
| 8.24 | 43.541 | 0.908 | 13.93 | 3.2 | 0.0 | 47.953 | 2.085 | 0.0 | 42.541 | 2.172 | 26.87 |
| 8.25 | 43.337 | 0.908 | 13.89 | 3.2 | 0.0 | 47.728 | 2.095 | 0.0 | 42.337 | 2.183 | 26.99 |
| 8.26 | 43.439 | 0.908 | 13.78 | 3.2 | 0.0 | 47.84 | 2.09 | 0.0 | 42.439 | 2.177 | 26.93 |
| 8.27 | 42.929 | 0.928 | 13.71 | 3.2 | 0.0 | 46.26 | 2.162 | 0.0 | 41.929 | 2.253 | 27.5 |
| 8.28 | 41.808 | 0.959 | 13.71 | 3.2 | 0.0 | 43.595 | 2.294 | 0.0 | 40.808 | 2.394 | 28.6 |
| 8.29 | 41.298 | 0.969 | 13.76 | 3.2 | 0.0 | 42.619 | 2.346 | 0.0 | 40.298 | 2.45 | 29.06 |
| 8.30 | 40.788 | 0.959 | 13.77 | 3.2 | 0.0 | 42.532 | 2.351 | 0.0 | 39.788 | 2.456 | 29.27 |
| 8.31 | 40.788 | 0.948 | 13.80 | 3.2 | 0.0 | 43.025 | 2.324 | 0.0 | 39.788 | 2.428 | 29.13 |
| 8.32 | 41.196 | 0.948 | 13.81 | 3.2 | 0.0 | 43.456 | 2.301 | 0.0 | 40.196 | 2.403 | 28.86 |
| 8.33 | 41.196 | 0.948 | 13.80 | 3.2 | 0.0 | 43.456 | 2.301 | 0.0 | 40.196 | 2.403 | 28.86 |
| 8.34 | 40.89 | 0.948 | 13.79 | 3.2 | 0.0 | 43.133 | 2.318 | 0.0 | 39.89 | 2.422 | 29.06 |
| 8.35 | 40.788 | 0.948 | 13.79 | 3.2 | 0.0 | 43.025 | 2.324 | 0.0 | 39.788 | 2.429 | 29.13 |
| 8.36 | 41.196 | 0.969 | 13.83 | 3.2 | 0.0 | 42.514 | 2.352 | 0.0 | 40.196 | 2.457 | 29.13 |
| 8.37 | 41.196 | 0.969 | 13.83 | 3.2 | 0.0 | 42.514 | 2.352 | 0.0 | 40.196 | 2.457 | 29.13 |
| 8.38 | 41.094 | 0.979 | 13.84 | 3.2 | 0.0 | 41.975 | 2.382 | 0.0 | 40.094 | 2.489 | 29.33 |
| 8.39 | 41.298 | 0.999 | 13.87 | 3.2 | 0.0 | 41.339 | 2.419 | 0.0 | 40.298 | 2.527 | 29.44 |
| 8.40 | 41.502 | 1.01 | 13.88 | 3.2 | 0.0 | 41.091 | 2.434 | 0.0 | 40.502 | 2.542 | 29.44 |
| 8.41 | 41.298 | 0.989 | 13.85 | 3.2 | 0.0 | 41.757 | 2.395 | 0.0 | 40.298 | 2.502 | 29.32 |
| 8.42 | 40.992 | 0.918 | 13.80 | 3.2 | 0.0 | 44.654 | 2.239 | 0.0 | 39.992 | 2.341 | 28.61 |
| 8.43 | 41.196 | 0.887 | 13.79 | 3.2 | 0.0 | 46.444 | 2.153 | 0.0 | 40.196 | 2.25 | 28.07 |
| 8.44 | 41.196 | 0.877 | 13.79 | 3.2 | 0.0 | 46.974 | 2.129 | 0.0 | 40.196 | 2.225 | 27.93 |
| 8.45 | 41.196 | 0.897 | 13.79 | 3.2 | 0.0 | 45.926 | 2.177 | 0.0 | 40.196 | 2.276 | 28.2 |
| 8.46 | 41.196 | 0.908 | 13.81 | 3.2 | 0.0 | 45.37 | 2.204 | 0.0 | 40.196 | 2.304 | 28.35 |
| 8.47 | 41.298 | 0.918 | 13.82 | 3.2 | 0.0 | 44.987 | 2.223 | 0.0 | 40.298 | 2.323 | 28.41 |
| 8.48 | 41.298 | 0.918 | 13.82 | 3.2 | 0.0 | 44.987 | 2.223 | 0.0 | 40.298 | 2.323 | 28.41 |
| 8.49 | 41.502 | 0.918 | 13.83 | 3.2 | 0.0 | 45.209 | 2.212 | 0.0 | 40.502 | 2.311 | 28.28 |
| 8.50 | 41.4 | 0.918 | 13.81 | 3.2 | 0.0 | 45.098 | 2.217 | 0.0 | 40.4 | 2.317 | 28.35 |
| 8.51 | 40.992 | 0.918 | 13.78 | 3.1 | 0.0 | 44.654 | 2.239 | 0.0 | 39.992 | 2.342 | 28.62 |
| 8.52 | 41.094 | 0.928 | 13.78 | 3.1 | 0.0 | 44.282 | 2.258 | 0.0 | 40.094 | 2.361 | 28.68 |
| 8.53 | 41.196 | 0.928 | 13.79 | 3.1 | 0.0 | 44.392 | 2.253 | 0.0 | 40.196 | 2.355 | 28.61 |
| 8.54 | 40.788 | 0.938 | 13.77 | 3.1 | 0.0 | 43.484 | 2.3 | 0.0 | 39.788 | 2.406 | 29.02 |
| 8.55 | 40.788 | 0.938 | 13.78 | 3.1 | 0.0 | 43.484 | 2.3 | 0.0 | 39.788 | 2.406 | 29.02 |
| 8.56 | 40.992 | 0.938 | 13.78 | 3.1 | 0.0 | 43.701 | 2.288 | 0.0 | 39.992 | 2.393 | 28.88 |
| 8.57 | 40.788 | 0.938 | 13.78 | 3.1 | 0.0 | 43.484 | 2.3 | 0.0 | 39.788 | 2.406 | 29.02 |
| 8.58 | 40.89 | 0.938 | 13.79 | 3.1 | 0.0 | 43.593 | 2.294 | 0.0 | 39.89 | 2.4 | 28.95 |
| 8.59 | 40.89 | 0.948 | 13.80 | 3.1 | 0.0 | 43.133 | 2.318 | 0.0 | 39.89 | 2.426 | 29.08 |
| 8.60 | 41.094 | 0.938 | 13.81 | 3.1 | 0.0 | 43.81 | 2.283 | 0.0 | 40.094 | 2.388 | 28.82 |
| 8.61 | 41.196 | 0.938 | 13.81 | 3.1 | 0.0 | 43.919 | 2.277 | 0.0 | 40.196 | 2.382 | 28.75 |
| 8.62 | 41.094 | 0.938 | 13.81 | 3.1 | 0.0 | 43.81 | 2.283 | 0.0 | 40.094 | 2.388 | 28.82 |
| 8.63 | 41.196 | 0.938 | 13.81 | 3.1 | 0.0 | 43.919 | 2.277 | 0.0 | 40.196 | 2.382 | 28.75 |
| 8.64 | 41.094 | 0.938 | 13.81 | 3.1 | 0.0 | 43.81 | 2.283 | 0.0 | 40.094 | 2.388 | 28.82 |
| 8.65 | 41.094 | 0.928 | 13.77 | 3.1 | 0.0 | 44.282 | 2.258 | 0.0 | 40.094 | 2.363 | 28.69 |
| 8.66 | 41.094 | 0.928 | 13.79 | 3.1 | 0.0 | 44.282 | 2.258 | 0.0 | 40.094 | 2.363 | 28.69 |
| 8.67 | 41.196 | 0.928 | 13.80 | 3.0 | 0.0 | 44.392 | 2.253 | 0.0 | 40.196 | 2.357 | 28.62 |
| 8.68 | 41.298 | 0.928 | 13.80 | 3.1 | 0.0 | 44.502 | 2.247 | 0.0 | 40.298 | 2.351 | 28.56 |
| 8.69 | 41.196 | 0.928 | 13.79 | 3.1 | 0.0 | 44.392 | 2.253 | 0.0 | 40.196 | 2.357 | 28.62 |
| 8.70 | 40.89 | 0.938 | 13.78 | 3.1 | 0.0 | 43.593 | 2.294 | 0.0 | 39.89 | 2.401 | 28.96 |
| 8.71 | 40.89 | 0.938 | 13.79 | 3.1 | 0.0 | 43.593 | 2.294 | 0.0 | 39.89 | 2.402 | 28.96 |

Prova n. 6

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|--------|-------|-----|--------|-------|-------|
| 8.72 | 41.196 | 0.938 | 13.81 | 3.1 | 0.0 | 43.919 | 2.277 | 0.0 | 40.196 | 2.383 | 28.76 |
| 8.73 | 41.4 | 0.938 | 13.82 | 3.0 | 0.0 | 44.136 | 2.266 | 0.0 | 40.4 | 2.371 | 28.62 |
| 8.74 | 41.502 | 0.938 | 13.82 | 3.0 | 0.0 | 44.245 | 2.26 | 0.0 | 40.502 | 2.365 | 28.56 |
| 8.75 | 41.4 | 0.938 | 13.82 | 3.0 | 0.0 | 44.136 | 2.266 | 0.0 | 40.4 | 2.371 | 28.62 |
| 8.76 | 41.4 | 0.948 | 13.83 | 3.0 | 0.0 | 43.671 | 2.29 | 0.0 | 40.4 | 2.396 | 28.75 |
| 8.77 | 41.196 | 0.938 | 13.81 | 3.0 | 0.0 | 43.919 | 2.277 | 0.0 | 40.196 | 2.384 | 28.76 |
| 8.78 | 40.89 | 0.948 | 13.80 | 3.0 | 0.0 | 43.133 | 2.318 | 0.0 | 39.89 | 2.428 | 29.09 |
| 8.79 | 41.298 | 0.948 | 13.81 | 3.0 | 0.0 | 43.563 | 2.296 | 0.0 | 40.298 | 2.403 | 28.82 |
| 8.80 | 41.196 | 0.938 | 13.80 | 3.0 | 0.0 | 43.919 | 2.277 | 0.0 | 40.196 | 2.384 | 28.76 |
| 8.81 | 41.094 | 0.938 | 13.78 | 3.0 | 0.0 | 43.81 | 2.283 | 0.0 | 40.094 | 2.39 | 28.83 |
| 8.82 | 40.992 | 0.938 | 13.78 | 3.1 | 0.0 | 43.701 | 2.288 | 0.0 | 39.992 | 2.397 | 28.9 |
| 8.83 | 41.094 | 0.938 | 13.79 | 3.0 | 0.0 | 43.81 | 2.283 | 0.0 | 40.094 | 2.391 | 28.83 |
| 8.84 | 40.992 | 0.938 | 13.79 | 3.0 | 0.0 | 43.701 | 2.288 | 0.0 | 39.992 | 2.397 | 28.9 |
| 8.85 | 41.094 | 0.928 | 13.78 | 3.0 | 0.0 | 44.282 | 2.258 | 0.0 | 40.094 | 2.365 | 28.7 |
| 8.86 | 41.094 | 0.928 | 13.78 | 3.0 | 0.0 | 44.282 | 2.258 | 0.0 | 40.094 | 2.365 | 28.7 |
| 8.87 | 40.992 | 0.928 | 13.76 | 3.0 | 0.0 | 44.172 | 2.264 | 0.0 | 39.992 | 2.372 | 28.77 |

STIMA PARAMETRI GEOTECNICI Nr.6**TERRENI COESIVI**Coesione non drenata (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Lunne & Eide | Sunda Relazione Sperimentale | Lunne T.-Kleven A. 1981 | Kjekstad. 1978 - Lunne, Robertson and Powell 1977 | Lunne, Robertson and Powell 1977 | Terzaghi |
|------------------|--------------------------|--------------------------|--------------|------------------------------|-------------------------|---|----------------------------------|----------|
| 1.31 | 24.434 | 20.66 | 1.17 | 1.55 | 1.62 | 1.43 | 1.28 | 1.22 |
| 4.58 | 86.467 | 73.73 | 4.15 | 3.44 | 5.72 | 5.05 | 4.52 | 4.32 |
| 5.16 | 127.014 | 98.366 | 6.08 | 4.06 | 8.40 | 7.41 | 6.63 | 6.35 |
| 7.00 | 35.592 | 29.841 | 1.65 | 1.98 | 2.28 | 2.01 | 1.80 | 1.78 |
| 8.87 | 43.009 | 41.809 | 1.99 | 2.24 | 2.75 | 2.43 | 2.17 | 2.15 |

Modulo Edometrico (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Mitchell & Gardner (1975) | Metodo generale del modulo edometrico | Buismann | Buismann Sanglerat |
|------------------|--------------------------|--------------------------|---------------------------|---------------------------------------|----------|--------------------|
| 1.31 | 24.434 | 20.66 | 61.09 | 48.87 | 73.30 | 73.30 |
| 4.58 | 86.467 | 73.73 | 216.17 | 172.93 | 259.40 | 129.70 |
| 5.16 | 127.014 | 98.366 | 317.53 | 254.02 | 381.04 | 190.52 |
| 7.00 | 35.592 | 29.841 | 88.98 | 71.18 | 106.78 | 106.78 |
| 8.87 | 43.009 | 41.809 | 107.52 | 86.02 | 129.03 | 129.03 |

Modulo di deformazione non drenato Eu (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Cancelli 1980 | Ladd 1977 (30) |
|------------------|--------------------------|--------------------------|---------------|----------------|
| 1.31 | 24.434 | 20.66 | 911.36 | 36.60 |
| 4.58 | 86.467 | 73.73 | 3218.59 | 129.60 |
| 5.16 | 127.014 | 98.366 | 4722.49 | 190.50 |
| 7.00 | 35.592 | 29.841 | 1284.42 | 53.40 |
| 8.87 | 43.009 | 41.809 | 1547.95 | 64.50 |

Modulo di deformazione a taglio

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Modulo di deformazione a taglio (Kg/cm ²) |
|------------------|--------------------------|--------------------------|-----------------|---|
| 1.31 | 24.434 | 20.66 | Imai & Tomauchi | 197.34 |
| 4.58 | 86.467 | 73.73 | Imai & Tomauchi | 427.14 |
| 5.16 | 127.014 | 98.366 | Imai & Tomauchi | 540.27 |
| 7.00 | 35.592 | 29.841 | Imai & Tomauchi | 248.33 |
| 8.87 | 43.009 | 41.809 | Imai & Tomauchi | 278.78 |

Prova n. 6

Grado di sovraconsolidazione

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Stress-History |
|------------------|--------------------------|--------------------------|----------------|
| 1.31 | 24.434 | 20.66 | 4.34 |
| 4.58 | 86.467 | 73.73 | 3.15 |
| 5.16 | 127.014 | 98.366 | 2.73 |
| 7.00 | 35.592 | 29.841 | 0.62 |
| 8.87 | 43.009 | 41.809 | 0.58 |

Peso unità di volume

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|--|
| 1.31 | 24.434 | 20.66 | Meyerhof | 2.01 |
| 4.58 | 86.467 | 73.73 | Meyerhof | 2.22 |
| 5.16 | 127.014 | 98.366 | Meyerhof | 2.28 |
| 7.00 | 35.592 | 29.841 | Meyerhof | 2.06 |
| 8.87 | 43.009 | 41.809 | Meyerhof | 2.09 |

Peso unità di volume saturo

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume saturo (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|---|
| 1.31 | 24.434 | 20.66 | Meyerhof | 2.09 |
| 4.58 | 86.467 | 73.73 | Meyerhof | 2.30 |
| 5.16 | 127.014 | 98.366 | Meyerhof | 2.36 |
| 7.00 | 35.592 | 29.841 | Meyerhof | 2.14 |
| 8.87 | 43.009 | 41.809 | Meyerhof | 2.17 |

TERRENI INCOERENTI

Densità relativa (%)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Baldi 1978 - Schmertmann 1976 | Schmertmann | Harman | Lancellotta 1983 | Jamiolkowski 1985 |
|------------------|--------------------------|--------------------------|-------------------------------|-------------|--------|------------------|-------------------|
| 1.31 | 24.434 | 20.66 | 54.72 | 73.85 | 72.47 | 55.46 | 85.15 |
| 4.58 | 86.467 | 73.73 | 68.14 | 77.51 | 77.82 | 68.99 | 75.99 |
| 5.16 | 127.014 | 98.366 | 71.58 | 77.41 | 78.35 | 72.46 | 71.91 |
| 7.00 | 35.592 | 29.841 | 32.36 | 25.05 | 29.46 | 32.91 | 29.26 |
| 8.87 | 43.009 | 41.809 | 34.12 | 25.12 | 29.83 | 34.68 | 27.38 |

Angolo di resistenza al taglio (°)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Durgunou glu-Mitchell 1973 | Caquot | Koppejan | De Beer | Schmertmann | Robertson & Campanella 1983 | Herminier | Meyerhof 1951 |
|------------------|--------------------------|--------------------------|----------------------------|--------|----------|---------|-------------|-----------------------------|-----------|---------------|
| 1.31 | 24.434 | 20.66 | 38.89 | 35.73 | 33.04 | 30.79 | 38.34 | 43.84 | 32.47 | 27.97 |
| 4.58 | 86.467 | 73.73 | 37.83 | 34.15 | 31.38 | 29.27 | 38.85 | 42.28 | 30.01 | 45 |
| 5.16 | 127.014 | 98.366 | 37.3 | 33.44 | 30.63 | 28.59 | 38.84 | 41.55 | 28.98 | 45 |
| 7.00 | 35.592 | 29.841 | 30.23 | 26.06 | 22.88 | 21.51 | 31.51 | 32.92 | 22.97 | 32.98 |
| 8.87 | 43.009 | 41.809 | 29.99 | 25.74 | 22.54 | 21.19 | 31.52 | 32.49 | 22.86 | 36.31 |

Modulo di Young (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Schmertmann | Robertson & Campanella (1983) | ISOPT-1 1988 Ey(50) |
|------------------|--------------------------|--------------------------|-------------|-------------------------------|---------------------|
| 1.31 | 24.434 | 20.66 | 61.09 | 48.87 | 174.41 |
| 4.58 | 86.467 | 73.73 | 216.17 | 172.93 | 579.23 |
| 5.16 | 127.014 | 98.366 | 317.53 | 254.03 | 852.37 |
| 7.00 | 35.592 | 29.841 | 88.98 | 71.18 | 462.48 |
| 8.87 | 43.009 | 41.809 | 107.52 | 86.02 | 558.50 |

Prova n. 6**Modulo Edometrico (Kg/cm²)**

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Robertson & Campanella da Schmertmann | Lunne-Christoffersen 1983 - Robertson and Powell 1997 | Kulhawy-Mayne 1990 | Mitchell & Gardner 1975 | Buisman - Sanglerat |
|------------------|--------------------------|--------------------------|---------------------------------------|---|--------------------|-------------------------|---------------------|
| 1.31 | 24.434 | 20.66 | 60.61 | 95.85 | 192.25 | 48.87 | 122.17 |
| 4.58 | 86.467 | 73.73 | 71.29 | 339.18 | 699.84 | 146.99 | 129.70 |
| 5.16 | 127.014 | 98.366 | 77.61 | 269.12 | 1030.70 | 190.52 | 190.52 |
| 7.00 | 35.592 | 29.841 | 36.54 | 139.62 | 274.32 | 71.18 | 106.78 |
| 8.87 | 43.009 | 41.809 | 41.38 | 168.71 | 332.30 | 86.02 | 129.03 |

Modulo di deformazione a taglio

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | G (Kg/cm ²) |
|------------------|--------------------------|--------------------------|-----------------|-------------------------|
| 1.31 | 24.434 | 20.66 | Imai & Tomauchi | 197.34 |
| 4.58 | 86.467 | 73.73 | Imai & Tomauchi | 427.14 |
| 5.16 | 127.014 | 98.366 | Imai & Tomauchi | 540.27 |
| 7.00 | 35.592 | 29.841 | Imai & Tomauchi | 248.33 |
| 8.87 | 43.009 | 41.809 | Imai & Tomauchi | 278.78 |

Grado di sovraconsolidazione

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Stress-History | Piacentini Righi 1978 | Larsson 1991 S.G.I. | Ladd e Foot 1977 |
|------------------|--------------------------|--------------------------|----------------|-----------------------|---------------------|------------------|
| 1.31 | 24.434 | 20.66 | 4.34 | >9 | 0.88 | >9 |
| 4.58 | 86.467 | 73.73 | 3.15 | >9 | 1.07 | >9 |
| 5.16 | 127.014 | 98.366 | 2.73 | >9 | 1.17 | >9 |
| 7.00 | 35.592 | 29.841 | 0.62 | >9 | <0.5 | 6.98 |
| 8.87 | 43.009 | 41.809 | 0.58 | >9 | <0.5 | 6.41 |

Modulo di reazione Ko

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Ko |
|------------------|--------------------------|--------------------------|------------------------|------|
| 1.31 | 24.434 | 20.66 | Kulhawy & Mayne (1990) | 0.91 |
| 4.58 | 86.467 | 73.73 | Kulhawy & Mayne (1990) | 0.74 |
| 5.16 | 127.014 | 98.366 | Kulhawy & Mayne (1990) | 0.67 |
| 7.00 | 35.592 | 29.841 | Kulhawy & Mayne (1990) | 0.26 |
| 8.87 | 43.009 | 41.809 | Kulhawy & Mayne (1990) | 0.25 |

Fattori di compressibilità C Crm

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | C | Crm |
|------------------|--------------------------|--------------------------|---------|---------|
| 1.31 | 24.434 | 20.66 | 0.12143 | 0.01579 |
| 4.58 | 86.467 | 73.73 | 0.09581 | 0.01245 |
| 5.16 | 127.014 | 98.366 | 0.09399 | 0.01222 |
| 7.00 | 35.592 | 29.841 | 0.11558 | 0.01503 |
| 8.87 | 43.009 | 41.809 | 0.1097 | 0.01426 |

Peso unità di volume

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|--|
| 1.31 | 24.434 | 20.66 | Meyerhof | 1.80 |
| 4.58 | 86.467 | 73.73 | Meyerhof | 1.80 |
| 5.16 | 127.014 | 98.366 | Meyerhof | 1.80 |
| 7.00 | 35.592 | 29.841 | Meyerhof | 1.80 |
| 8.87 | 43.009 | 41.809 | Meyerhof | 1.80 |

Peso unità di volume saturo

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume saturo (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|---|
| 1.31 | 24.434 | 20.66 | Meyerhof | 2.10 |
| 4.58 | 86.467 | 73.73 | Meyerhof | 2.10 |
| 5.16 | 127.014 | 98.366 | Meyerhof | 2.10 |
| 7.00 | 35.592 | 29.841 | Meyerhof | 2.10 |
| 8.87 | 43.009 | 41.809 | Meyerhof | 2.10 |

Prova n. 6**Liquefazione - Accelerazione sismica massima (g)=0**

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Fattore di sicurezza a liquefazione |
|------------------|--------------------------|--------------------------|------------------------|-------------------------------------|
| 1.31 | 24.434 | 20.66 | Robertson & Wride 1997 | 0 |
| 4.58 | 86.467 | 73.73 | Robertson & Wride 1997 | 0 |
| 5.16 | 127.014 | 98.366 | Robertson & Wride 1997 | 0 |
| 7.00 | 35.592 | 29.841 | Robertson & Wride 1997 | 0 |
| 8.87 | 43.009 | 41.809 | Robertson & Wride 1997 | 0 |

Permeabilità

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Permeabilità (cm/s) |
|------------------|--------------------------|--------------------------|-----------------------|---------------------|
| 1.31 | 24.434 | 20.66 | Piacentini-Righi 1988 | 1E-11 |
| 4.58 | 86.467 | 73.73 | Piacentini-Righi 1988 | 1E-11 |
| 5.16 | 127.014 | 98.366 | Piacentini-Righi 1988 | 1E-11 |
| 7.00 | 35.592 | 29.841 | Piacentini-Righi 1988 | 1E-11 |
| 8.87 | 43.009 | 41.809 | Piacentini-Righi 1988 | 1E-11 |

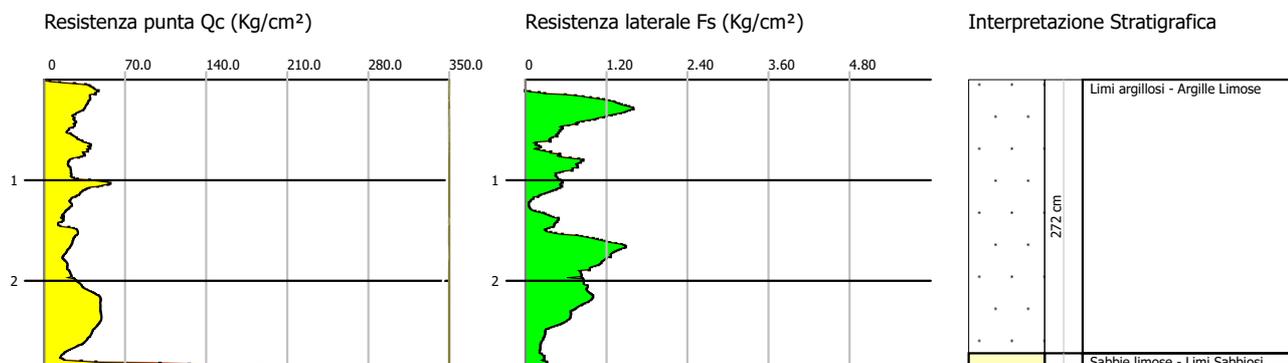
Coefficiente di consolidazione

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Coefficiente di consolidazione (cm ² /s) |
|------------------|--------------------------|--------------------------|-----------------------|---|
| 1.31 | 24.434 | 20.66 | Piacentini-Righi 1988 | 7.3302E-07 |
| 4.58 | 86.467 | 73.73 | Piacentini-Righi 1988 | 2.59401E-06 |
| 5.16 | 127.014 | 98.366 | Piacentini-Righi 1988 | 3.81042E-06 |
| 7.00 | 35.592 | 29.841 | Piacentini-Righi 1988 | 1.06776E-06 |
| 8.87 | 43.009 | 41.809 | Piacentini-Righi 1988 | 1.29027E-06 |

Probe CPTU - Piezocone Nr.7
Strumento utilizzato PAGANI 200 kN (CPTU)

Committente: Comune di Livorno
Cantiere: Piazza Vittoria - Livorno
Località: Piazza Vittoria - Livorno

Data: 10/01/2019



Prova n. 7

PROVA CPTU7_MS2

Committente: Comune di Livorno
 Strumento utilizzato: PAGANI 200 kN (CPTU)
 Prova eseguita in data: 10/01/2019
 Profondità prova: 2.85 mt
 Località: Piazza Vittoria - Livorno

RESISTENZE / LITOLOGIE

Profondità
 qc Resistenza punta (Kg/cm²);
 fs Resistenza laterale (Kg/cm²);
 Tilt Inclinazione (°)
 Temp Temperatura (°)
 Fr fs/qcx100 (Schmertmann)
 qcn qc normalizzata (Kg/cm²);
 fsn fs normalizzato (Kg/cm²);
 U2 Pressione neutrale intorno al cono (Kg/cm²);
 Uo Pressione neutrale rilevata (Kg/cm²);
 Fc Contenuto in materiale fine(%)

| Profondità | qc | fs | U2 | Tilt | Temp | qc/fs | Fr | Uo | qcn | fsn | FC% |
|------------|--------|-------|-------|------|------|---------|-------|-----|--------|-------|-------|
| 0.01 | 0.816 | 0.0 | 0.01 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | -0.184 | 0.0 | 0 |
| 0.02 | 4.691 | 0.0 | 0.03 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 3.691 | 0.0 | 69.08 |
| 0.03 | 13.358 | 0.0 | 0.00 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 12.358 | 0.0 | 39.02 |
| 0.04 | 26.308 | 0.0 | 0.00 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 25.308 | 0.0 | 26.41 |
| 0.05 | 35.893 | 0.0 | 0.00 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 34.893 | 0.0 | 21.82 |
| 0.06 | 38.647 | 0.0 | 0.00 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 37.647 | 0.0 | 20.82 |
| 0.07 | 39.768 | 0.0 | 0.00 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 38.768 | 0.0 | 20.45 |
| 0.08 | 41.706 | 0.0 | -0.02 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 40.706 | 0.0 | 19.83 |
| 0.09 | 42.521 | 0.0 | -0.01 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 41.521 | 0.0 | 19.59 |
| 0.10 | 43.643 | 0.0 | 0.00 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 42.643 | 0.0 | 19.26 |
| 0.11 | 46.6 | 0.0 | -0.02 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 45.6 | 0.0 | 18.45 |
| 0.12 | 44.561 | 0.061 | -0.01 | 0.4 | 0.0 | 730.508 | 0.137 | 0.0 | 43.561 | 0.137 | 9.57 |
| 0.13 | 43.439 | 0.204 | -0.01 | 0.4 | 0.0 | 212.936 | 0.47 | 0.0 | 42.439 | 0.47 | 14.25 |

Prova n. 7

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|-------|
| 0.14 | 44.051 | 0.286 | -0.01 | 0.4 | 0.0 | 154.024 | 0.649 | 0.0 | 43.051 | 0.65 | 16.01 |
| 0.15 | 39.055 | 0.591 | -0.01 | 0.4 | 0.0 | 66.083 | 1.513 | 0.0 | 38.055 | 1.514 | 24.49 |
| 0.16 | 38.953 | 0.744 | -0.02 | 0.4 | 0.0 | 52.356 | 1.91 | 0.0 | 37.953 | 1.912 | 27 |
| 0.17 | 39.055 | 0.857 | -0.03 | 0.4 | 0.0 | 45.572 | 2.194 | 0.0 | 38.055 | 2.196 | 28.56 |
| 0.18 | 39.156 | 0.969 | -0.06 | 0.4 | 0.0 | 40.409 | 2.475 | 0.0 | 38.156 | 2.477 | 29.98 |
| 0.19 | 39.462 | 1.081 | -0.12 | 0.4 | 0.0 | 36.505 | 2.739 | 0.0 | 38.462 | 2.742 | 31.15 |
| 0.20 | 38.443 | 1.162 | -0.06 | 0.4 | 0.0 | 33.083 | 3.023 | 0.0 | 37.443 | 3.026 | 32.86 |
| 0.21 | 37.729 | 1.244 | 0.04 | 0.4 | 0.0 | 30.329 | 3.297 | 0.0 | 36.729 | 3.301 | 34.35 |
| 0.22 | 37.525 | 1.315 | 0.01 | 0.4 | 0.0 | 28.536 | 3.504 | 0.0 | 36.525 | 3.509 | 35.3 |
| 0.23 | 37.219 | 1.336 | -0.05 | 0.4 | 0.0 | 27.859 | 3.59 | 0.0 | 36.219 | 3.594 | 35.78 |
| 0.24 | 36.709 | 1.387 | -0.12 | 0.4 | 0.0 | 26.466 | 3.778 | 0.0 | 35.709 | 3.784 | 36.76 |
| 0.25 | 35.791 | 1.428 | -0.15 | 0.4 | 0.0 | 25.064 | 3.99 | 0.0 | 34.791 | 3.996 | 38 |
| 0.26 | 35.384 | 1.489 | -0.15 | 0.4 | 0.0 | 23.764 | 4.208 | 0.0 | 34.384 | 4.215 | 39.01 |
| 0.27 | 35.078 | 1.54 | -0.49 | 0.4 | 0.0 | 22.778 | 4.39 | 0.0 | 34.078 | 4.397 | 39.82 |
| 0.28 | 34.568 | 1.591 | -0.58 | 0.4 | 0.0 | 21.727 | 4.603 | 0.0 | 33.568 | 4.61 | 40.83 |
| 0.29 | 33.752 | 1.601 | -0.44 | 0.4 | 0.0 | 21.082 | 4.743 | 0.0 | 32.752 | 4.752 | 41.73 |
| 0.30 | 33.446 | 1.55 | -0.06 | 0.4 | 0.0 | 21.578 | 4.634 | 0.0 | 32.446 | 4.643 | 41.51 |
| 0.31 | 30.693 | 1.499 | -0.01 | 0.4 | 0.0 | 20.476 | 4.884 | 0.0 | 29.693 | 4.894 | 43.91 |
| 0.32 | 29.061 | 1.468 | -0.02 | 0.4 | 0.0 | 19.796 | 5.051 | 0.0 | 28.061 | 5.063 | 45.49 |
| 0.33 | 27.226 | 1.417 | -0.01 | 0.4 | 0.0 | 19.214 | 5.205 | 0.0 | 26.226 | 5.218 | 47.25 |
| 0.34 | 26.614 | 1.336 | -0.04 | 0.4 | 0.0 | 19.921 | 5.02 | 0.0 | 25.614 | 5.033 | 47.06 |
| 0.35 | 24.473 | 1.275 | -0.01 | 0.4 | 0.0 | 19.195 | 5.21 | 0.0 | 23.473 | 5.225 | 49.37 |
| 0.36 | 23.861 | 1.203 | -0.01 | 0.4 | 0.0 | 19.835 | 5.042 | 0.0 | 22.861 | 5.058 | 49.3 |
| 0.37 | 24.371 | 1.162 | -0.02 | 0.4 | 0.0 | 20.973 | 4.768 | 0.0 | 23.371 | 4.783 | 47.91 |
| 0.38 | 25.798 | 1.071 | 0.01 | 0.4 | 0.0 | 24.088 | 4.151 | 0.0 | 24.798 | 4.164 | 44.48 |
| 0.39 | 24.677 | 1.03 | 0.00 | 0.4 | 0.0 | 23.958 | 4.174 | 0.0 | 23.677 | 4.188 | 45.43 |
| 0.40 | 25.289 | 0.948 | 0.00 | 0.4 | 0.0 | 26.676 | 3.749 | 0.0 | 24.289 | 3.761 | 43.23 |
| 0.41 | 25.798 | 0.857 | 0.00 | 0.4 | 0.0 | 30.103 | 3.322 | 0.0 | 24.798 | 3.333 | 41 |
| 0.42 | 27.124 | 0.785 | 0.01 | 0.4 | 0.0 | 34.553 | 2.894 | 0.0 | 26.124 | 2.903 | 38.09 |
| 0.43 | 26.206 | 0.744 | 0.01 | 0.4 | 0.0 | 35.223 | 2.839 | 0.0 | 25.206 | 2.849 | 38.44 |
| 0.44 | 24.881 | 0.765 | 0.01 | 0.4 | 0.0 | 32.524 | 3.075 | 0.0 | 23.881 | 3.086 | 40.53 |
| 0.45 | 26.002 | 0.642 | 0.02 | 0.4 | 0.0 | 40.502 | 2.469 | 0.0 | 25.002 | 2.478 | 36.67 |
| 0.46 | 25.696 | 0.54 | 0.02 | 0.4 | 0.0 | 47.585 | 2.101 | 0.0 | 24.696 | 2.109 | 34.79 |
| 0.47 | 24.371 | 0.51 | 0.01 | 0.4 | 0.0 | 47.786 | 2.093 | 0.0 | 23.371 | 2.101 | 35.68 |
| 0.48 | 21.21 | 0.551 | 0.02 | 0.4 | 0.0 | 38.494 | 2.598 | 0.0 | 20.21 | 2.61 | 41.18 |
| 0.49 | 21.21 | 0.53 | 0.02 | 0.4 | 0.0 | 40.019 | 2.499 | 0.0 | 20.21 | 2.511 | 40.64 |
| 0.50 | 20.19 | 0.5 | 0.02 | 0.4 | 0.0 | 40.38 | 2.476 | 0.0 | 19.19 | 2.489 | 41.48 |
| 0.51 | 19.272 | 0.51 | 0.03 | 0.4 | 0.0 | 37.788 | 2.646 | 0.0 | 18.272 | 2.661 | 43.37 |
| 0.52 | 18.864 | 0.479 | 0.03 | 0.4 | 0.0 | 39.382 | 2.539 | 0.0 | 17.864 | 2.554 | 43.22 |
| 0.53 | 19.17 | 0.489 | 0.03 | 0.4 | 0.0 | 39.202 | 2.551 | 0.0 | 18.17 | 2.565 | 42.95 |
| 0.54 | 22.433 | 0.459 | 0.03 | 0.4 | 0.0 | 48.874 | 2.046 | 0.0 | 21.433 | 2.056 | 36.92 |
| 0.55 | 23.351 | 0.449 | 0.01 | 0.4 | 0.0 | 52.007 | 1.923 | 0.0 | 22.351 | 1.932 | 35.41 |
| 0.56 | 24.677 | 0.469 | 0.03 | 0.4 | 0.0 | 52.616 | 1.901 | 0.0 | 23.677 | 1.909 | 34.28 |
| 0.57 | 25.9 | 0.398 | 0.04 | 0.4 | 0.0 | 65.075 | 1.537 | 0.0 | 24.9 | 1.544 | 30.99 |
| 0.58 | 27.838 | 0.367 | 0.04 | 0.4 | 0.0 | 75.853 | 1.318 | 0.0 | 26.838 | 1.324 | 28.19 |
| 0.59 | 28.042 | 0.347 | 0.04 | 0.4 | 0.0 | 80.813 | 1.237 | 0.0 | 27.042 | 1.243 | 27.44 |
| 0.60 | 29.775 | 0.347 | 0.03 | 0.4 | 0.0 | 85.807 | 1.165 | 0.0 | 28.775 | 1.17 | 25.93 |
| 0.61 | 32.426 | 0.367 | 0.00 | 0.4 | 0.0 | 88.354 | 1.132 | 0.0 | 31.426 | 1.136 | 24.39 |
| 0.62 | 33.038 | 0.153 | 0.03 | 0.4 | 0.0 | 215.935 | 0.463 | 0.0 | 32.038 | 0.465 | 17.53 |
| 0.63 | 35.893 | 0.122 | 0.11 | 0.3 | 0.0 | 294.205 | 0.34 | 0.0 | 34.893 | 0.341 | 14.89 |
| 0.64 | 38.647 | 0.163 | 0.11 | 0.3 | 0.0 | 237.098 | 0.422 | 0.0 | 37.647 | 0.423 | 15.06 |
| 0.65 | 39.87 | 0.143 | 0.11 | 0.3 | 0.0 | 278.811 | 0.359 | 0.0 | 38.87 | 0.36 | 13.89 |
| 0.66 | 37.525 | 0.194 | 0.09 | 0.3 | 0.0 | 193.428 | 0.517 | 0.0 | 36.525 | 0.519 | 16.55 |
| 0.67 | 37.933 | 0.224 | 0.10 | 0.3 | 0.0 | 169.344 | 0.591 | 0.0 | 36.933 | 0.593 | 17.23 |
| 0.68 | 39.462 | 0.153 | 0.10 | 0.3 | 0.0 | 257.922 | 0.388 | 0.0 | 38.462 | 0.389 | 14.39 |
| 0.69 | 36.709 | 0.133 | 0.12 | 0.3 | 0.0 | 276.008 | 0.362 | 0.0 | 35.709 | 0.364 | 14.92 |
| 0.70 | 37.015 | 0.194 | 0.12 | 0.2 | 0.0 | 190.799 | 0.524 | 0.0 | 36.015 | 0.526 | 16.81 |
| 0.71 | 37.423 | 0.275 | 0.09 | 0.1 | 0.0 | 136.084 | 0.735 | 0.0 | 36.423 | 0.738 | 18.89 |
| 0.72 | 32.834 | 0.377 | 0.01 | 0.1 | 0.0 | 87.093 | 1.148 | 0.0 | 31.834 | 1.153 | 24.34 |
| 0.73 | 34.16 | 0.367 | 0.13 | 0.1 | 0.0 | 93.079 | 1.074 | 0.0 | 33.16 | 1.079 | 23.17 |
| 0.74 | 33.65 | 0.51 | 0.13 | 0.1 | 0.0 | 65.98 | 1.516 | 0.0 | 32.65 | 1.522 | 26.7 |
| 0.75 | 34.772 | 0.479 | 0.13 | 0.1 | 0.0 | 72.593 | 1.378 | 0.0 | 33.772 | 1.384 | 25.24 |
| 0.76 | 32.223 | 0.469 | 0.14 | 0.0 | 0.0 | 68.706 | 1.455 | 0.0 | 31.223 | 1.463 | 26.93 |
| 0.77 | 29.673 | 0.52 | 0.15 | 0.1 | 0.0 | 57.063 | 1.752 | 0.0 | 28.673 | 1.762 | 30.23 |
| 0.78 | 23.963 | 0.663 | 0.16 | 0.0 | 0.0 | 36.143 | 2.767 | 0.0 | 22.963 | 2.785 | 39.76 |
| 0.79 | 21.72 | 0.795 | 0.15 | 0.0 | 0.0 | 27.321 | 3.66 | 0.0 | 20.72 | 3.688 | 45.9 |

Prova n. 7

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|-------|
| 0.80 | 21.312 | 0.857 | 0.15 | 0.0 | 0.0 | 24.868 | 4.021 | 0.0 | 20.312 | 4.052 | 47.82 |
| 0.81 | 20.496 | 0.816 | 0.16 | 0.0 | 0.0 | 25.118 | 3.981 | 0.0 | 19.496 | 4.014 | 48.47 |
| 0.82 | 20.292 | 0.816 | 0.16 | 0.0 | 0.0 | 24.868 | 4.021 | 0.0 | 19.292 | 4.055 | 48.85 |
| 0.83 | 20.19 | 0.775 | 0.16 | 0.0 | 0.0 | 26.052 | 3.839 | 0.0 | 19.19 | 3.871 | 48.18 |
| 0.84 | 19.884 | 0.744 | 0.16 | 0.0 | 0.0 | 26.726 | 3.742 | 0.0 | 18.884 | 3.774 | 48.09 |
| 0.85 | 20.088 | 0.755 | 0.16 | 0.0 | 0.0 | 26.607 | 3.758 | 0.0 | 19.088 | 3.791 | 47.95 |
| 0.86 | 20.394 | 0.765 | 0.16 | 0.0 | 0.0 | 26.659 | 3.751 | 0.0 | 19.394 | 3.784 | 47.6 |
| 0.87 | 21.312 | 0.775 | 0.16 | 0.0 | 0.0 | 27.499 | 3.636 | 0.0 | 20.312 | 3.667 | 46.19 |
| 0.88 | 22.331 | 0.693 | 0.16 | 0.0 | 0.0 | 32.224 | 3.103 | 0.0 | 21.331 | 3.128 | 42.8 |
| 0.89 | 22.331 | 0.693 | 0.16 | 0.0 | 0.0 | 32.224 | 3.103 | 0.0 | 21.331 | 3.129 | 42.8 |
| 0.90 | 22.331 | 0.693 | 0.16 | 0.0 | 0.0 | 32.224 | 3.103 | 0.0 | 21.331 | 3.129 | 42.8 |
| 0.91 | 22.739 | 0.551 | 0.20 | 0.1 | 0.0 | 41.269 | 2.423 | 0.0 | 21.739 | 2.443 | 38.93 |
| 0.92 | 22.739 | 0.5 | 0.20 | 0.1 | 0.0 | 45.478 | 2.199 | 0.0 | 21.739 | 2.217 | 37.64 |
| 0.93 | 22.331 | 0.438 | 0.20 | 0.1 | 0.0 | 50.984 | 1.961 | 0.0 | 21.331 | 1.978 | 36.52 |
| 0.94 | 22.943 | 0.449 | 0.20 | 0.1 | 0.0 | 51.098 | 1.957 | 0.0 | 21.943 | 1.974 | 35.99 |
| 0.95 | 23.147 | 0.438 | 0.20 | 0.1 | 0.0 | 52.847 | 1.892 | 0.0 | 22.147 | 1.908 | 35.42 |
| 0.96 | 22.331 | 0.438 | 0.20 | 0.0 | 0.0 | 50.984 | 1.961 | 0.0 | 21.331 | 1.979 | 36.52 |
| 0.97 | 22.943 | 0.459 | 0.20 | 0.0 | 0.0 | 49.985 | 2.001 | 0.0 | 21.943 | 2.018 | 36.27 |
| 0.98 | 25.289 | 0.469 | 0.20 | 0.0 | 0.0 | 53.921 | 1.855 | 0.0 | 24.289 | 1.869 | 33.59 |
| 0.99 | 28.552 | 0.479 | 0.21 | 0.1 | 0.0 | 59.608 | 1.678 | 0.0 | 27.552 | 1.69 | 30.38 |
| 1.00 | 39.36 | 0.51 | 0.21 | 0.0 | 0.0 | 77.176 | 1.296 | 0.0 | 38.36 | 1.302 | 22.92 |
| 1.01 | 47.314 | 0.53 | 0.21 | 0.0 | 0.0 | 89.272 | 1.12 | 0.0 | 46.314 | 1.125 | 19.23 |
| 1.02 | 54.044 | 0.551 | 0.21 | 0.0 | 0.0 | 98.083 | 1.02 | 0.0 | 53.044 | 1.023 | 16.89 |
| 1.03 | 56.899 | 0.52 | 0.21 | 0.0 | 0.0 | 109.421 | 0.914 | 0.0 | 55.899 | 0.917 | 15.49 |
| 1.04 | 55.166 | 0.51 | 0.21 | 0.0 | 0.0 | 108.169 | 0.924 | 0.0 | 54.166 | 0.928 | 15.92 |
| 1.05 | 49.863 | 0.51 | 0.21 | 0.0 | 0.0 | 97.771 | 1.023 | 0.0 | 48.863 | 1.027 | 17.85 |
| 1.06 | 46.396 | 0.54 | 0.21 | 0.0 | 0.0 | 85.919 | 1.164 | 0.0 | 45.396 | 1.169 | 19.8 |
| 1.07 | 38.749 | 0.51 | 0.22 | 0.0 | 0.0 | 75.978 | 1.316 | 0.0 | 37.749 | 1.324 | 23.28 |
| 1.08 | 36.403 | 0.469 | 0.22 | 0.0 | 0.0 | 77.618 | 1.288 | 0.0 | 35.403 | 1.296 | 23.95 |
| 1.09 | 34.874 | 0.449 | 0.22 | 0.0 | 0.0 | 77.67 | 1.287 | 0.0 | 33.874 | 1.296 | 24.56 |
| 1.10 | 33.038 | 0.398 | 0.22 | 0.0 | 0.0 | 83.01 | 1.205 | 0.0 | 32.038 | 1.213 | 24.72 |
| 1.11 | 32.019 | 0.357 | 0.22 | 0.0 | 0.0 | 89.689 | 1.115 | 0.0 | 31.019 | 1.123 | 24.46 |
| 1.12 | 30.795 | 0.316 | 0.22 | 0.0 | 0.0 | 97.453 | 1.026 | 0.0 | 29.795 | 1.034 | 24.29 |
| 1.13 | 30.591 | 0.275 | 0.22 | 0.0 | 0.0 | 111.24 | 0.899 | 0.0 | 29.591 | 0.906 | 23.26 |
| 1.14 | 29.775 | 0.224 | 0.22 | 0.0 | 0.0 | 132.924 | 0.752 | 0.0 | 28.775 | 0.758 | 22.23 |
| 1.15 | 27.736 | 0.194 | 0.22 | 0.0 | 0.0 | 142.969 | 0.699 | 0.0 | 26.736 | 0.705 | 22.72 |
| 1.16 | 26.614 | 0.184 | 0.22 | 0.0 | 0.0 | 144.641 | 0.691 | 0.0 | 25.614 | 0.698 | 23.26 |
| 1.17 | 24.065 | 0.112 | 0.22 | 0.1 | 0.0 | 214.866 | 0.465 | 0.0 | 23.065 | 0.47 | 22.08 |
| 1.18 | 22.739 | 0.112 | 0.22 | 0.0 | 0.0 | 203.027 | 0.493 | 0.0 | 21.739 | 0.498 | 23.33 |
| 1.19 | 22.637 | 0.082 | 0.22 | 0.1 | 0.0 | 276.061 | 0.362 | 0.0 | 21.637 | 0.366 | 21.57 |
| 1.20 | 21.21 | 0.071 | 0.22 | 0.0 | 0.0 | 298.732 | 0.335 | 0.0 | 20.21 | 0.339 | 22.18 |
| 1.21 | 21.414 | 0.061 | 0.22 | 0.1 | 0.0 | 351.049 | 0.285 | 0.0 | 20.414 | 0.288 | 21.23 |
| 1.22 | 21.822 | 0.041 | 0.22 | 0.0 | 0.0 | 532.244 | 0.188 | 0.0 | 20.822 | 0.19 | 19.28 |
| 1.23 | 22.637 | 0.041 | 0.24 | 0.1 | 0.0 | 552.122 | 0.181 | 0.0 | 21.637 | 0.183 | 18.62 |
| 1.24 | 23.453 | 0.041 | 0.24 | 0.0 | 0.0 | 572.024 | 0.175 | 0.0 | 22.453 | 0.177 | 17.99 |
| 1.25 | 23.555 | 0.041 | 0.24 | 0.0 | 0.0 | 574.512 | 0.174 | 0.0 | 22.555 | 0.176 | 17.92 |
| 1.26 | 22.127 | 0.041 | 0.24 | 0.0 | 0.0 | 539.683 | 0.185 | 0.0 | 21.127 | 0.187 | 19.03 |
| 1.27 | 21.414 | 0.051 | 0.24 | 0.0 | 0.0 | 419.882 | 0.238 | 0.0 | 20.414 | 0.241 | 20.45 |
| 1.28 | 20.496 | 0.061 | 0.24 | 0.0 | 0.0 | 336.0 | 0.298 | 0.0 | 19.496 | 0.301 | 22.13 |
| 1.29 | 19.476 | 0.071 | 0.24 | 0.0 | 0.0 | 274.31 | 0.365 | 0.0 | 18.476 | 0.37 | 24.03 |
| 1.30 | 18.355 | 0.092 | 0.24 | 0.0 | 0.0 | 199.511 | 0.501 | 0.0 | 17.355 | 0.509 | 27.04 |
| 1.31 | 17.743 | 0.143 | 0.24 | 0.0 | 0.0 | 124.077 | 0.806 | 0.0 | 16.743 | 0.818 | 31.39 |
| 1.32 | 17.029 | 0.204 | 0.24 | 0.0 | 0.0 | 83.475 | 1.198 | 0.0 | 16.029 | 1.217 | 36.06 |
| 1.33 | 16.315 | 0.265 | 0.22 | 0.0 | 0.0 | 61.566 | 1.624 | 0.0 | 15.315 | 1.652 | 40.44 |
| 1.34 | 15.499 | 0.296 | 0.24 | 0.0 | 0.0 | 52.361 | 1.91 | 0.0 | 14.499 | 1.944 | 43.61 |
| 1.35 | 14.99 | 0.337 | 0.24 | 0.0 | 0.0 | 44.481 | 2.248 | 0.0 | 13.99 | 2.29 | 46.59 |
| 1.36 | 16.621 | 0.367 | 0.24 | 0.0 | 0.0 | 45.289 | 2.208 | 0.0 | 15.621 | 2.245 | 44.06 |
| 1.37 | 14.174 | 0.408 | 0.22 | 0.0 | 0.0 | 34.74 | 2.879 | 0.0 | 13.174 | 2.936 | 51.59 |
| 1.38 | 14.582 | 0.489 | 0.11 | 0.0 | 0.0 | 29.82 | 3.353 | 0.0 | 13.582 | 3.419 | 53.38 |
| 1.39 | 16.213 | 0.489 | -0.01 | 0.0 | 0.0 | 33.155 | 3.016 | 0.0 | 15.213 | 3.07 | 49.21 |
| 1.40 | 16.111 | 0.459 | 0.00 | 0.0 | 0.0 | 35.1 | 2.849 | 0.0 | 15.111 | 2.9 | 48.47 |
| 1.41 | 14.684 | 0.469 | -0.01 | 0.0 | 0.0 | 31.309 | 3.194 | 0.0 | 13.684 | 3.257 | 52.42 |
| 1.42 | 11.727 | 0.438 | 0.00 | 0.1 | 0.0 | 26.774 | 3.735 | 0.0 | 10.727 | 3.829 | 60.77 |
| 1.43 | 11.421 | 0.428 | 0.01 | 0.1 | 0.0 | 26.685 | 3.747 | 0.0 | 10.421 | 3.845 | 61.55 |
| 1.44 | 11.523 | 0.418 | 0.02 | 0.1 | 0.0 | 27.567 | 3.628 | 0.0 | 10.523 | 3.722 | 60.73 |
| 1.45 | 11.93 | 0.418 | 0.06 | 0.1 | 0.0 | 28.541 | 3.504 | 0.0 | 10.93 | 3.592 | 59.2 |

Prova n. 7

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 1.46 | 13.766 | 0.408 | 0.19 | 0.1 | 0.0 | 33.74 | 2.964 | 0.0 | 12.766 | 3.029 | 52.78 |
| 1.47 | 21.312 | 0.347 | 0.72 | 0.1 | 0.0 | 61.418 | 1.628 | 0.0 | 20.312 | 1.651 | 35.19 |
| 1.48 | 25.187 | 0.306 | 0.71 | 0.1 | 0.0 | 82.31 | 1.215 | 0.0 | 24.187 | 1.23 | 29.08 |
| 1.49 | 27.43 | 0.275 | 0.66 | 0.1 | 0.0 | 99.745 | 1.003 | 0.0 | 26.43 | 1.014 | 25.88 |
| 1.50 | 28.144 | 0.286 | 0.58 | 0.1 | 0.0 | 98.406 | 1.016 | 0.0 | 27.144 | 1.027 | 25.6 |
| 1.51 | 28.45 | 0.306 | 0.54 | 0.1 | 0.0 | 92.974 | 1.076 | 0.0 | 27.45 | 1.087 | 25.95 |
| 1.52 | 28.654 | 0.377 | 0.53 | 0.1 | 0.0 | 76.005 | 1.316 | 0.0 | 27.654 | 1.33 | 27.78 |
| 1.53 | 28.654 | 0.449 | 0.49 | 0.1 | 0.0 | 63.817 | 1.567 | 0.0 | 27.654 | 1.584 | 29.61 |
| 1.54 | 27.838 | 0.551 | 0.45 | 0.1 | 0.0 | 50.523 | 1.979 | 0.0 | 26.838 | 2.002 | 32.78 |
| 1.55 | 26.308 | 0.765 | 0.41 | 0.1 | 0.0 | 34.39 | 2.908 | 0.0 | 25.308 | 2.943 | 38.83 |
| 1.56 | 26.002 | 0.836 | 0.39 | 0.1 | 0.0 | 31.103 | 3.215 | 0.0 | 25.002 | 3.255 | 40.5 |
| 1.57 | 25.289 | 0.918 | 0.39 | 0.1 | 0.0 | 27.548 | 3.63 | 0.0 | 24.289 | 3.676 | 42.87 |
| 1.58 | 24.677 | 1.01 | 0.38 | 0.1 | 0.0 | 24.433 | 4.093 | 0.0 | 23.677 | 4.147 | 45.26 |
| 1.59 | 24.575 | 1.071 | 0.37 | 0.1 | 0.0 | 22.946 | 4.358 | 0.0 | 23.575 | 4.416 | 46.39 |
| 1.60 | 24.167 | 1.132 | 0.36 | 0.1 | 0.0 | 21.349 | 4.684 | 0.0 | 23.167 | 4.748 | 47.95 |
| 1.61 | 23.963 | 1.193 | 0.35 | 0.1 | 0.0 | 20.086 | 4.979 | 0.0 | 22.963 | 5.047 | 49.18 |
| 1.62 | 23.759 | 1.254 | 0.34 | 0.1 | 0.0 | 18.947 | 5.278 | 0.0 | 22.759 | 5.352 | 50.4 |
| 1.63 | 23.453 | 1.346 | 0.35 | 0.1 | 0.0 | 17.424 | 5.739 | 0.0 | 22.453 | 5.821 | 52.2 |
| 1.64 | 22.943 | 1.428 | 0.33 | 0.1 | 0.0 | 16.067 | 6.224 | 0.0 | 21.943 | 6.315 | 54.2 |
| 1.65 | 22.433 | 1.468 | 0.27 | 0.1 | 0.0 | 15.281 | 6.544 | 0.0 | 21.433 | 6.643 | 55.66 |
| 1.66 | 21.924 | 1.489 | 0.19 | 0.1 | 0.0 | 14.724 | 6.792 | 0.0 | 20.924 | 6.897 | 56.9 |
| 1.67 | 21.516 | 1.468 | 0.14 | 0.1 | 0.0 | 14.657 | 6.823 | 0.0 | 20.516 | 6.932 | 57.41 |
| 1.68 | 20.394 | 1.417 | 0.12 | 0.1 | 0.0 | 14.392 | 6.948 | 0.0 | 19.394 | 7.066 | 58.98 |
| 1.69 | 19.68 | 1.377 | 0.12 | 0.1 | 0.0 | 14.292 | 6.997 | 0.0 | 18.68 | 7.121 | 59.94 |
| 1.70 | 19.272 | 1.346 | 0.12 | 0.1 | 0.0 | 14.318 | 6.984 | 0.0 | 18.272 | 7.111 | 60.39 |
| 1.71 | 18.864 | 1.315 | 0.12 | 0.1 | 0.0 | 14.345 | 6.971 | 0.0 | 17.864 | 7.101 | 60.86 |
| 1.72 | 18.253 | 1.285 | 0.11 | 0.1 | 0.0 | 14.205 | 7.04 | 0.0 | 17.253 | 7.177 | 61.85 |
| 1.73 | 17.437 | 1.264 | 0.10 | 0.1 | 0.0 | 13.795 | 7.249 | 0.0 | 16.437 | 7.397 | 63.56 |
| 1.74 | 16.621 | 1.254 | 0.10 | 0.1 | 0.0 | 13.254 | 7.545 | 0.0 | 15.621 | 7.708 | 65.6 |
| 1.75 | 16.009 | 1.264 | 0.10 | 0.2 | 0.0 | 12.665 | 7.896 | 0.0 | 15.009 | 8.074 | 67.54 |
| 1.76 | 15.397 | 1.264 | 0.09 | 0.2 | 0.0 | 12.181 | 8.209 | 0.0 | 14.397 | 8.403 | 69.41 |
| 1.77 | 15.295 | 1.203 | 0.07 | 0.2 | 0.0 | 12.714 | 7.865 | 0.0 | 14.295 | 8.053 | 68.64 |
| 1.78 | 15.499 | 1.183 | 0.07 | 0.2 | 0.0 | 13.101 | 7.633 | 0.0 | 14.499 | 7.814 | 67.64 |
| 1.79 | 16.315 | 1.162 | 0.08 | 0.2 | 0.0 | 14.04 | 7.122 | 0.0 | 15.315 | 7.283 | 64.86 |
| 1.80 | 17.233 | 1.142 | 0.10 | 0.2 | 0.0 | 15.09 | 6.627 | 0.0 | 16.233 | 6.769 | 62.01 |
| 1.81 | 18.151 | 1.122 | 0.12 | 0.2 | 0.0 | 16.177 | 6.181 | 0.0 | 17.151 | 6.308 | 59.37 |
| 1.82 | 18.966 | 1.122 | 0.15 | 0.2 | 0.0 | 16.904 | 5.916 | 0.0 | 17.966 | 6.033 | 57.48 |
| 1.83 | 19.476 | 1.101 | 0.18 | 0.2 | 0.0 | 17.689 | 5.653 | 0.0 | 18.476 | 5.762 | 56.01 |
| 1.84 | 19.782 | 1.081 | 0.20 | 0.2 | 0.0 | 18.3 | 5.465 | 0.0 | 18.782 | 5.569 | 55.02 |
| 1.85 | 19.476 | 1.03 | 0.24 | 0.2 | 0.0 | 18.909 | 5.289 | 0.0 | 18.476 | 5.392 | 54.76 |
| 1.86 | 19.374 | 0.979 | 0.24 | 0.2 | 0.0 | 19.79 | 5.053 | 0.0 | 18.374 | 5.153 | 54.04 |
| 1.87 | 19.476 | 0.948 | 0.25 | 0.2 | 0.0 | 20.544 | 4.868 | 0.0 | 18.476 | 4.964 | 53.24 |
| 1.88 | 19.476 | 0.948 | 0.25 | 0.2 | 0.0 | 20.544 | 4.868 | 0.0 | 18.476 | 4.964 | 53.24 |
| 1.89 | 19.476 | 0.948 | 0.25 | 0.2 | 0.0 | 20.544 | 4.868 | 0.0 | 18.476 | 4.965 | 53.25 |
| 1.90 | 21.21 | 0.785 | 0.30 | 0.1 | 0.0 | 27.019 | 3.701 | 0.0 | 20.21 | 3.769 | 46.73 |
| 1.91 | 21.312 | 0.806 | 0.30 | 0.1 | 0.0 | 26.442 | 3.782 | 0.0 | 20.312 | 3.851 | 46.98 |
| 1.92 | 22.026 | 0.816 | 0.32 | 0.1 | 0.0 | 26.993 | 3.705 | 0.0 | 21.026 | 3.771 | 45.97 |
| 1.93 | 22.229 | 0.816 | 0.34 | 0.1 | 0.0 | 27.241 | 3.671 | 0.0 | 21.229 | 3.736 | 45.64 |
| 1.94 | 22.637 | 0.826 | 0.37 | 0.0 | 0.0 | 27.406 | 3.649 | 0.0 | 21.637 | 3.713 | 45.18 |
| 1.95 | 23.045 | 0.826 | 0.39 | 0.0 | 0.0 | 27.9 | 3.584 | 0.0 | 22.045 | 3.646 | 44.54 |
| 1.96 | 23.351 | 0.826 | 0.42 | 0.0 | 0.0 | 28.27 | 3.537 | 0.0 | 22.351 | 3.598 | 44.07 |
| 1.97 | 20.19 | 0.622 | 0.46 | 0.0 | 0.0 | 32.46 | 3.081 | 0.0 | 19.19 | 3.142 | 44.88 |
| 1.98 | 25.594 | 0.846 | 0.48 | 0.0 | 0.0 | 30.253 | 3.305 | 0.0 | 24.594 | 3.358 | 41.26 |
| 1.99 | 26.206 | 0.857 | 0.51 | 0.0 | 0.0 | 30.579 | 3.27 | 0.0 | 25.206 | 3.321 | 40.66 |
| 2.00 | 27.124 | 0.857 | 0.54 | 0.0 | 0.0 | 31.65 | 3.16 | 0.0 | 26.124 | 3.207 | 39.51 |
| 2.01 | 28.042 | 0.857 | 0.55 | 0.0 | 0.0 | 32.721 | 3.056 | 0.0 | 27.042 | 3.101 | 38.43 |
| 2.02 | 29.061 | 0.857 | 0.56 | 0.0 | 0.0 | 33.91 | 2.949 | 0.0 | 28.061 | 2.991 | 37.29 |
| 2.03 | 30.387 | 0.857 | 0.56 | 0.0 | 0.0 | 35.457 | 2.82 | 0.0 | 29.387 | 2.859 | 35.89 |
| 2.04 | 31.203 | 0.867 | 0.56 | 0.0 | 0.0 | 35.99 | 2.779 | 0.0 | 30.203 | 2.816 | 35.24 |
| 2.05 | 32.019 | 0.918 | 0.57 | 0.0 | 0.0 | 34.879 | 2.867 | 0.0 | 31.019 | 2.904 | 35.23 |
| 2.06 | 32.324 | 0.918 | 0.58 | 0.0 | 0.0 | 35.211 | 2.84 | 0.0 | 31.324 | 2.877 | 34.94 |
| 2.07 | 33.242 | 0.908 | 0.59 | 0.0 | 0.0 | 36.61 | 2.731 | 0.0 | 32.242 | 2.766 | 33.96 |
| 2.08 | 34.568 | 0.897 | 0.59 | 0.0 | 0.0 | 38.537 | 2.595 | 0.0 | 33.568 | 2.627 | 32.64 |
| 2.09 | 36.301 | 0.897 | 0.59 | 0.0 | 0.0 | 40.469 | 2.471 | 0.0 | 35.301 | 2.5 | 31.24 |
| 2.10 | 37.933 | 0.908 | 0.59 | 0.0 | 0.0 | 41.776 | 2.394 | 0.0 | 36.933 | 2.421 | 30.17 |
| 2.11 | 39.972 | 0.918 | 0.59 | 0.0 | 0.0 | 43.542 | 2.297 | 0.0 | 38.972 | 2.321 | 28.88 |

Prova n. 7

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|---------|-------|-----|--------|-------|-------|
| 2.12 | 41.91 | 0.938 | 0.59 | 0.0 | 0.0 | 44.68 | 2.238 | 0.0 | 40.91 | 2.261 | 27.88 |
| 2.13 | 43.439 | 0.959 | 0.59 | 0.0 | 0.0 | 45.296 | 2.208 | 0.0 | 42.439 | 2.23 | 27.21 |
| 2.14 | 44.561 | 0.979 | 0.59 | 0.0 | 0.0 | 45.517 | 2.197 | 0.0 | 43.561 | 2.218 | 26.79 |
| 2.15 | 46.702 | 0.999 | 0.60 | 0.0 | 0.0 | 46.749 | 2.139 | 0.0 | 45.702 | 2.159 | 25.84 |
| 2.16 | 47.518 | 0.999 | 0.60 | 0.0 | 0.0 | 47.566 | 2.102 | 0.0 | 46.518 | 2.122 | 25.41 |
| 2.17 | 48.028 | 0.989 | 0.60 | 0.0 | 0.0 | 48.562 | 2.059 | 0.0 | 47.028 | 2.078 | 25.03 |
| 2.18 | 48.334 | 0.979 | 0.60 | 0.1 | 0.0 | 49.371 | 2.025 | 0.0 | 47.334 | 2.044 | 24.76 |
| 2.19 | 48.334 | 0.959 | 0.60 | 0.1 | 0.0 | 50.4 | 1.984 | 0.0 | 47.334 | 2.002 | 24.54 |
| 2.20 | 48.232 | 0.938 | 0.60 | 0.1 | 0.0 | 51.42 | 1.945 | 0.0 | 47.232 | 1.963 | 24.35 |
| 2.21 | 47.926 | 0.918 | 0.60 | 0.1 | 0.0 | 52.207 | 1.915 | 0.0 | 46.926 | 1.933 | 24.27 |
| 2.22 | 47.926 | 0.877 | 0.60 | 0.1 | 0.0 | 54.648 | 1.83 | 0.0 | 46.926 | 1.847 | 23.78 |
| 2.23 | 48.028 | 0.846 | 0.60 | 0.1 | 0.0 | 56.771 | 1.761 | 0.0 | 47.028 | 1.778 | 23.35 |
| 2.24 | 48.13 | 0.826 | 0.60 | 0.1 | 0.0 | 58.269 | 1.716 | 0.0 | 47.13 | 1.732 | 23.05 |
| 2.25 | 48.13 | 0.785 | 0.60 | 0.1 | 0.0 | 61.312 | 1.631 | 0.0 | 47.13 | 1.647 | 22.54 |
| 2.26 | 48.028 | 0.765 | 0.60 | 0.1 | 0.0 | 62.782 | 1.593 | 0.0 | 47.028 | 1.608 | 22.33 |
| 2.27 | 48.028 | 0.744 | 0.60 | 0.1 | 0.0 | 64.554 | 1.549 | 0.0 | 47.028 | 1.564 | 22.05 |
| 2.28 | 48.028 | 0.724 | 0.60 | 0.1 | 0.0 | 66.337 | 1.507 | 0.0 | 47.028 | 1.522 | 21.79 |
| 2.29 | 48.13 | 0.693 | 0.61 | 0.1 | 0.0 | 69.452 | 1.44 | 0.0 | 47.13 | 1.454 | 21.32 |
| 2.30 | 48.028 | 0.663 | 0.61 | 0.1 | 0.0 | 72.44 | 1.38 | 0.0 | 47.028 | 1.394 | 20.95 |
| 2.31 | 48.232 | 0.663 | 0.61 | 0.1 | 0.0 | 72.748 | 1.375 | 0.0 | 47.232 | 1.388 | 20.86 |
| 2.32 | 48.436 | 0.663 | 0.61 | 0.1 | 0.0 | 73.056 | 1.369 | 0.0 | 47.436 | 1.382 | 20.77 |
| 2.33 | 48.64 | 0.673 | 0.61 | 0.1 | 0.0 | 72.273 | 1.384 | 0.0 | 47.64 | 1.397 | 20.81 |
| 2.34 | 48.844 | 0.663 | 0.61 | 0.1 | 0.0 | 73.671 | 1.357 | 0.0 | 47.844 | 1.371 | 20.58 |
| 2.35 | 48.946 | 0.663 | 0.61 | 0.1 | 0.0 | 73.825 | 1.355 | 0.0 | 47.946 | 1.368 | 20.54 |
| 2.36 | 48.946 | 0.663 | 0.61 | 0.1 | 0.0 | 73.825 | 1.355 | 0.0 | 47.946 | 1.368 | 20.54 |
| 2.37 | 49.048 | 0.653 | 0.61 | 0.1 | 0.0 | 75.112 | 1.331 | 0.0 | 48.048 | 1.345 | 20.36 |
| 2.38 | 49.048 | 0.642 | 0.61 | 0.1 | 0.0 | 76.399 | 1.309 | 0.0 | 48.048 | 1.322 | 20.2 |
| 2.39 | 48.64 | 0.612 | 0.61 | 0.1 | 0.0 | 79.477 | 1.258 | 0.0 | 47.64 | 1.271 | 19.95 |
| 2.40 | 48.13 | 0.602 | 0.62 | 0.1 | 0.0 | 79.95 | 1.251 | 0.0 | 47.13 | 1.264 | 20.03 |
| 2.41 | 47.518 | 0.571 | 0.62 | 0.1 | 0.0 | 83.219 | 1.202 | 0.0 | 46.518 | 1.214 | 19.84 |
| 2.42 | 46.906 | 0.54 | 0.62 | 0.1 | 0.0 | 86.863 | 1.151 | 0.0 | 45.906 | 1.163 | 19.63 |
| 2.43 | 46.192 | 0.51 | 0.62 | 0.1 | 0.0 | 90.573 | 1.104 | 0.0 | 45.192 | 1.116 | 19.46 |
| 2.44 | 45.581 | 0.469 | 0.62 | 0.1 | 0.0 | 97.188 | 1.029 | 0.0 | 44.581 | 1.04 | 19.04 |
| 2.45 | 44.867 | 0.418 | 0.62 | 0.1 | 0.0 | 107.337 | 0.932 | 0.0 | 43.867 | 0.942 | 18.44 |
| 2.46 | 43.949 | 0.377 | 0.63 | 0.1 | 0.0 | 116.576 | 0.858 | 0.0 | 42.949 | 0.868 | 18.06 |
| 2.47 | 43.133 | 0.337 | 0.63 | 0.1 | 0.0 | 127.991 | 0.781 | 0.0 | 42.133 | 0.79 | 17.6 |
| 2.48 | 42.114 | 0.296 | 0.63 | 0.1 | 0.0 | 142.277 | 0.703 | 0.0 | 41.114 | 0.711 | 17.15 |
| 2.49 | 41.604 | 0.296 | 0.63 | 0.1 | 0.0 | 140.554 | 0.711 | 0.0 | 40.604 | 0.72 | 17.39 |
| 2.50 | 41.196 | 0.286 | 0.63 | 0.1 | 0.0 | 144.042 | 0.694 | 0.0 | 40.196 | 0.703 | 17.34 |
| 2.51 | 40.89 | 0.286 | 0.63 | 0.1 | 0.0 | 142.972 | 0.699 | 0.0 | 39.89 | 0.708 | 17.48 |
| 2.52 | 40.482 | 0.286 | 0.63 | 0.1 | 0.0 | 141.545 | 0.706 | 0.0 | 39.482 | 0.716 | 17.68 |
| 2.53 | 40.074 | 0.286 | 0.63 | 0.1 | 0.0 | 140.119 | 0.714 | 0.0 | 39.074 | 0.723 | 17.88 |
| 2.54 | 39.564 | 0.275 | 0.63 | 0.1 | 0.0 | 143.869 | 0.695 | 0.0 | 38.564 | 0.704 | 17.85 |
| 2.55 | 39.156 | 0.275 | 0.63 | 0.1 | 0.0 | 142.385 | 0.702 | 0.0 | 38.156 | 0.712 | 18.06 |
| 2.56 | 37.831 | 0.265 | 0.63 | 0.1 | 0.0 | 142.758 | 0.7 | 0.0 | 36.831 | 0.71 | 18.48 |
| 2.57 | 37.219 | 0.255 | 0.63 | 0.1 | 0.0 | 145.957 | 0.685 | 0.0 | 36.219 | 0.695 | 18.54 |
| 2.58 | 36.607 | 0.255 | 0.63 | 0.1 | 0.0 | 143.557 | 0.697 | 0.0 | 35.607 | 0.707 | 18.87 |
| 2.59 | 35.893 | 0.245 | 0.63 | 0.1 | 0.0 | 146.502 | 0.683 | 0.0 | 34.893 | 0.693 | 18.99 |
| 2.60 | 35.18 | 0.235 | 0.63 | 0.1 | 0.0 | 149.702 | 0.668 | 0.0 | 34.18 | 0.678 | 19.1 |
| 2.61 | 34.16 | 0.224 | 0.63 | 0.1 | 0.0 | 152.5 | 0.656 | 0.0 | 33.16 | 0.666 | 19.37 |
| 2.62 | 33.14 | 0.224 | 0.63 | 0.1 | 0.0 | 147.946 | 0.676 | 0.0 | 32.14 | 0.687 | 20 |
| 2.63 | 31.917 | 0.214 | 0.63 | 0.1 | 0.0 | 149.145 | 0.67 | 0.0 | 30.917 | 0.682 | 20.46 |
| 2.64 | 29.163 | 0.214 | 0.63 | 0.1 | 0.0 | 136.276 | 0.734 | 0.0 | 28.163 | 0.748 | 22.42 |
| 2.65 | 27.532 | 0.214 | 0.63 | 0.1 | 0.0 | 128.654 | 0.777 | 0.0 | 26.532 | 0.793 | 23.74 |
| 2.66 | 25.9 | 0.214 | 0.63 | 0.1 | 0.0 | 121.028 | 0.826 | 0.0 | 24.9 | 0.844 | 25.19 |
| 2.67 | 23.963 | 0.214 | 0.63 | 0.1 | 0.0 | 111.977 | 0.893 | 0.0 | 22.963 | 0.914 | 27.11 |
| 2.68 | 22.026 | 0.214 | 0.63 | 0.1 | 0.0 | 102.925 | 0.972 | 0.0 | 21.026 | 0.996 | 29.31 |
| 2.69 | 20.088 | 0.204 | 0.63 | 0.1 | 0.0 | 98.471 | 1.016 | 0.0 | 19.088 | 1.044 | 31.37 |
| 2.70 | 18.661 | 0.204 | 0.63 | 0.1 | 0.0 | 91.475 | 1.093 | 0.0 | 17.661 | 1.126 | 33.49 |
| 2.71 | 17.233 | 0.204 | 0.63 | 0.1 | 0.0 | 84.475 | 1.184 | 0.0 | 16.233 | 1.223 | 35.87 |
| 2.72 | 16.621 | 0.204 | 0.62 | 0.1 | 0.0 | 81.475 | 1.227 | 0.0 | 15.621 | 1.27 | 37 |
| 2.73 | 15.295 | 0.235 | 0.62 | 0.1 | 0.0 | 65.085 | 1.536 | 0.0 | 14.295 | 1.594 | 41.36 |
| 2.74 | 14.276 | 0.245 | 0.62 | 0.1 | 0.0 | 58.269 | 1.716 | 0.0 | 13.276 | 1.786 | 44.3 |
| 2.75 | 14.276 | 0.275 | 0.62 | 0.1 | 0.0 | 51.913 | 1.926 | 0.0 | 13.276 | 2.005 | 45.84 |
| 2.76 | 13.562 | 0.265 | 0.61 | 0.1 | 0.0 | 51.177 | 1.954 | 0.0 | 12.562 | 2.038 | 47.23 |
| 2.77 | 13.154 | 0.275 | 0.62 | 0.1 | 0.0 | 47.833 | 2.091 | 0.0 | 12.154 | 2.184 | 48.92 |

Prova n. 7

| | | | | | | | | | | | |
|------|---------|-------|------|-----|-----|----------|-------|-----|---------|-------|-------|
| 2.78 | 15.601 | 0.265 | 0.45 | 0.1 | 0.0 | 58.872 | 1.699 | 0.0 | 14.601 | 1.762 | 42.19 |
| 2.79 | 17.029 | 0.235 | 0.30 | 0.1 | 0.0 | 72.464 | 1.38 | 0.0 | 16.029 | 1.427 | 37.83 |
| 2.80 | 32.121 | 0.275 | 0.31 | 0.3 | 0.0 | 116.804 | 0.856 | 0.0 | 31.121 | 0.872 | 22.24 |
| 2.81 | 44.663 | 0.316 | 0.33 | 0.5 | 0.0 | 141.339 | 0.708 | 0.0 | 43.663 | 0.717 | 16.5 |
| 2.82 | 100.033 | 0.316 | 0.52 | 0.8 | 0.0 | 316.56 | 0.316 | 0.0 | 99.033 | 0.318 | 5.06 |
| 2.83 | 125.219 | 0.275 | 0.65 | 1.3 | 0.0 | 455.342 | 0.22 | 0.0 | 124.219 | 0.221 | 2.65 |
| 2.84 | 160.195 | 0.306 | 0.70 | 1.7 | 0.0 | 523.513 | 0.191 | 0.0 | 159.195 | 0.192 | 1.1 |
| 2.85 | 188.033 | 0.163 | 0.48 | 1.8 | 0.0 | 1153.577 | 0.087 | 0.0 | 187.033 | 0.087 | 0 |

STIMA PARAMETRI GEOTECNICI Nr.7**TERRENI COESIVI**Coesione non drenata (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Lunne & Eide | Sunda Relazione Sperimentale | Lunne T.-Kleven A. 1981 | Kjekstad. 1978 - Lunne, Robertson and Powell 1977 | Lunne, Robertson and Powell 1977 | Terzaghi |
|------------------|--------------------------|--------------------------|--------------|------------------------------|-------------------------|---|----------------------------------|----------|
| 2.72 | 40.947 | 31.976 | 1.96 | 2.24 | 2.71 | 2.39 | 2.14 | 2.05 |
| 2.85 | 118.466 | 83.869 | 5.69 | 3.96 | 7.86 | 6.93 | 6.20 | 5.92 |

Modulo Edometrico (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Mitchell & Gardner (1975) | Metodo generale del modulo edometrico | Buisman | Buisman Sanglerat |
|------------------|--------------------------|--------------------------|---------------------------|---------------------------------------|---------|-------------------|
| 2.72 | 40.947 | 31.976 | 102.37 | 81.89 | 122.84 | 122.84 |
| 2.85 | 118.466 | 83.869 | 296.17 | 236.93 | 355.40 | 177.70 |

Modulo di deformazione non drenato Eu (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Cancelli 1980 | Ladd 1977 (30) |
|------------------|--------------------------|--------------------------|---------------|----------------|
| 2.72 | 40.947 | 31.976 | 1524.80 | 61.50 |
| 2.85 | 118.466 | 83.869 | 4420.52 | 177.60 |

Modulo di deformazione a taglio

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Modulo di deformazione a taglio (Kg/cm ²) |
|------------------|--------------------------|--------------------------|-----------------|---|
| 2.72 | 40.947 | 31.976 | Imai & Tomauchi | 270.54 |
| 2.85 | 118.466 | 83.869 | Imai & Tomauchi | 517.75 |

Grado di sovraconsolidazione

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Stress-History |
|------------------|--------------------------|--------------------------|----------------|
| 2.72 | 40.947 | 31.976 | 3.33 |
| 2.85 | 118.466 | 83.869 | 4.71 |

Peso unità di volume

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|--|
| 2.72 | 40.947 | 31.976 | Meyerhof | 2.09 |
| 2.85 | 118.466 | 83.869 | Meyerhof | 2.27 |

Peso unità di volume saturo

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume saturo (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|---|
| 2.72 | 40.947 | 31.976 | Meyerhof | 2.17 |
| 2.85 | 118.466 | 83.869 | Meyerhof | 2.35 |

Prova n. 7**TERRENI INCOERENTI**

Densità relativa (%)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Baldi 1978 - Schmertmann 1976 | Schmertmann | Harman | Lancellotta 1983 | Jamiolkowski 1985 |
|------------------|--------------------------|--------------------------|-------------------------------|-------------|--------|------------------|-------------------|
| 2.72 | 40.947 | 31.976 | 58.32 | 71.78 | 71.47 | 59.09 | 77.61 |
| 2.85 | 118.466 | 83.869 | 78.31 | 91.35 | 90.7 | 79.25 | 87.48 |

Angolo di resistenza al taglio (°)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Durgunou glu-Mitchell 1973 | Caquot | Koppejan | De Beer | Schmertmann | Robertson & Campanella 1983 | Herminier | Meyerhof 1951 |
|------------------|--------------------------|--------------------------|----------------------------|--------|----------|---------|-------------|-----------------------------|-----------|---------------|
| 2.72 | 40.947 | 31.976 | 37.86 | 34.43 | 31.67 | 29.54 | 38.05 | 42.56 | 30.35 | 35.39 |
| 2.85 | 118.466 | 83.869 | 39.73 | 36.14 | 33.46 | 31.18 | 40.79 | 44.23 | 33.57 | 45 |

Modulo di Young (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Schmertmann | Robertson & Campanella (1983) | ISOPT-1 1988 Ey(50) |
|------------------|--------------------------|--------------------------|-------------|-------------------------------|---------------------|
| 2.72 | 40.947 | 31.976 | 102.37 | 81.89 | 302.45 |
| 2.85 | 118.466 | 83.869 | 296.17 | 236.93 | 596.83 |

Modulo Edometrico (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Robertson & Campanella da Schmertmann | Lunne-Christoffersen 1983 - Robertson and Powell 1997 | Kulhawy-Mayne 1990 | Mitchell & Gardner 1975 | Buisman - Sanglerat |
|------------------|--------------------------|--------------------------|---------------------------------------|---|--------------------|-------------------------|---------------------|
| 2.72 | 40.947 | 31.976 | 61.28 | 160.62 | 327.21 | 81.89 | 122.84 |
| 2.85 | 118.466 | 83.869 | 82.57 | 252.35 | 964.26 | 177.70 | 177.70 |

Modulo di deformazione a taglio

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | G (Kg/cm ²) |
|------------------|--------------------------|--------------------------|-----------------|-------------------------|
| 2.72 | 40.947 | 31.976 | Imai & Tomauchi | 270.54 |
| 2.85 | 118.466 | 83.869 | Imai & Tomauchi | 517.75 |

Grado di sovraconsolidazione

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Stress-History | Piacentini Righi 1978 | Larsson 1991 S.G.I. | Ladd e Foot 1977 |
|------------------|--------------------------|--------------------------|----------------|-----------------------|---------------------|------------------|
| 2.72 | 40.947 | 31.976 | 3.33 | >9 | 1.04 | >9 |
| 2.85 | 118.466 | 83.869 | 4.71 | >9 | 0.81 | >9 |

Modulo di reazione Ko

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Ko |
|------------------|--------------------------|--------------------------|------------------------|------|
| 2.72 | 40.947 | 31.976 | Kulhawy & Mayne (1990) | 0.76 |
| 2.85 | 118.466 | 83.869 | Kulhawy & Mayne (1990) | 0.96 |

Fattori di compressibilità C Crm

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | C | Crn |
|------------------|--------------------------|--------------------------|---------|---------|
| 2.72 | 40.947 | 31.976 | 0.11114 | 0.01445 |
| 2.85 | 118.466 | 83.869 | 0.09387 | 0.0122 |

Peso unità di volume

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|--|
| 2.72 | 40.947 | 31.976 | Meyerhof | 1.80 |
| 2.85 | 118.466 | 83.869 | Meyerhof | 1.80 |

Peso unità di volume saturo

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume saturo (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|---|
| 2.72 | 40.947 | 31.976 | Meyerhof | 2.10 |
| 2.85 | 118.466 | 83.869 | Meyerhof | 2.10 |

Prova n. 7**Liquefazione - Accelerazione sismica massima (g)=0**

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Fattore di sicurezza a liquefazione |
|------------------|--------------------------|--------------------------|------------------------|-------------------------------------|
| 2.72 | 40.947 | 31.976 | Robertson & Wride 1997 | 0 |
| 2.85 | 118.466 | 83.869 | Robertson & Wride 1997 | 0 |

Permeabilità

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Permeabilità (cm/s) |
|------------------|--------------------------|--------------------------|-----------------------|---------------------|
| 2.72 | 40.947 | 31.976 | Piacentini-Righi 1988 | 1E-11 |
| 2.85 | 118.466 | 83.869 | Piacentini-Righi 1988 | 1E-11 |

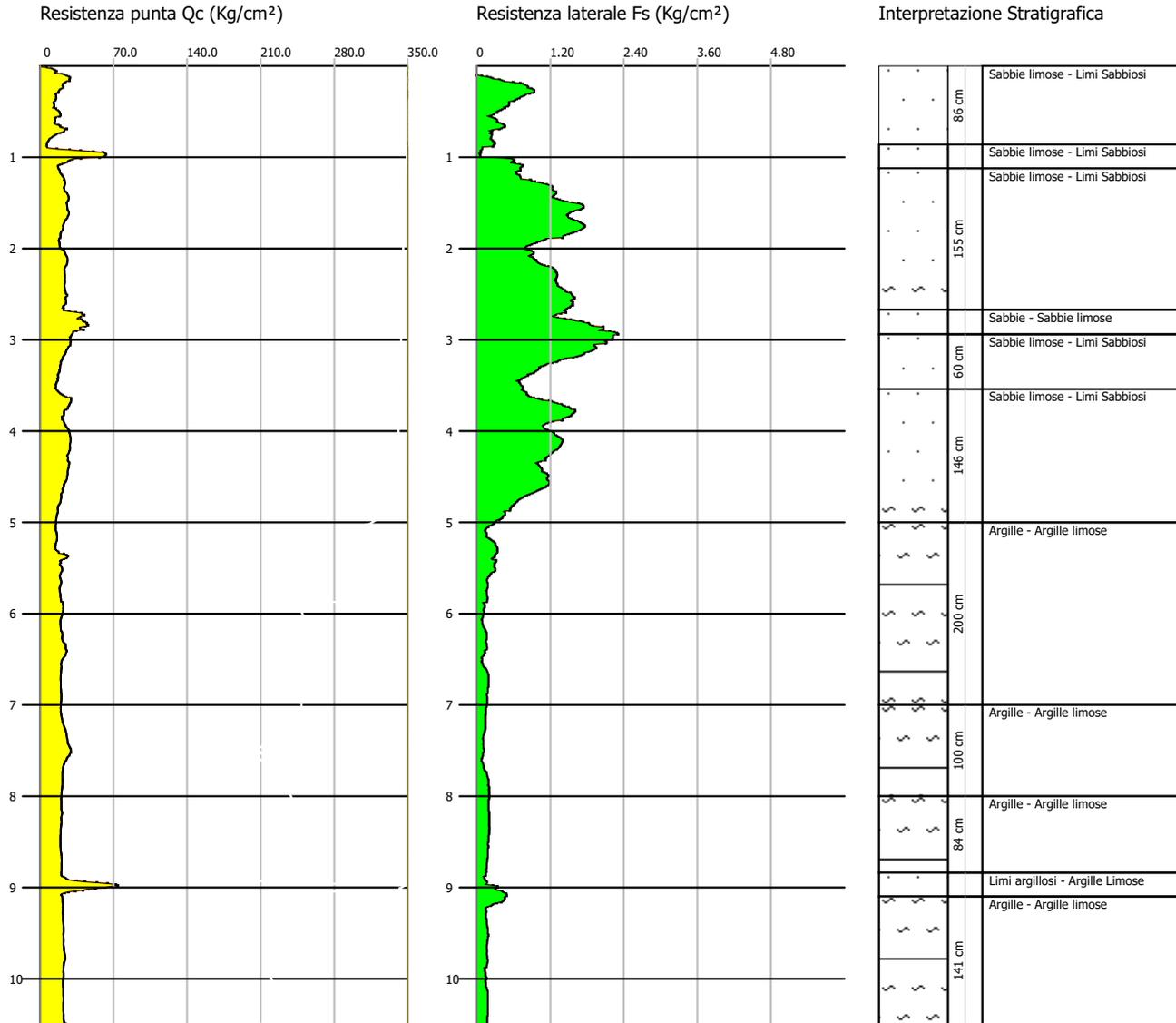
Coefficiente di consolidazione

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Coefficiente di consolidazione (cm ² /s) |
|------------------|--------------------------|--------------------------|-----------------------|---|
| 2.72 | 40.947 | 31.976 | Piacentini-Righi 1988 | 1.22841E-06 |
| 2.85 | 118.466 | 83.869 | Piacentini-Righi 1988 | 3.55398E-06 |

Probe CPTU - Piezocone Nr.8
 Strumento utilizzato PAGANI 200 kN (CPTU)

Committente: Comune di Livorno
 Cantiere: Piazza Dante - Livorno
 Località: Piazza Dante - Livorno

Data: 10/01/2019



Prova n. 8

PROVA CPTU8_MS2

Committente: Comune di Livorno
 Strumento utilizzato: PAGANI 200 kN (CPTU)
 Prova eseguita in data: 10/01/2019
 Profondità prova: 10.51 mt
 Località: Piazza Dante - Livorno

RESISTENZE / LITOLOGIE

Profondità
 qc Resistenza punta (Kg/cm²);
 fs Resistenza laterale (Kg/cm²);
 Tilt Inclinazione (°)
 Temp Temperatura (°)
 Fr fs/qcx100 (Schmertmann)
 qcn qc normalizzata (Kg/cm²);
 fsn fs normalizzato (Kg/cm²);
 U2 Pressione neutrale intorno al cono (Kg/cm²);
 Uo Pressione neutrale rilevata (Kg/cm²);
 Fc Contenuto in materiale fine(%)

| Profondità | qc | fs | U2 | Tilt | Temp | qc/fs | Fr | Uo | qcn | fsn | FC% |
|------------|--------|-------|-------|------|------|---------|-------|-----|--------|-------|-------|
| 0.01 | 0.918 | 0.0 | 0.00 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | -0.082 | 0.0 | 0 |
| 0.02 | 6.016 | 0.0 | 0.00 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 5.016 | 0.0 | 60.28 |
| 0.03 | 10.401 | 0.0 | 0.00 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 9.401 | 0.0 | 44.79 |
| 0.04 | 12.542 | 0.0 | 0.00 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 11.542 | 0.0 | 40.41 |
| 0.05 | 13.97 | 0.0 | -0.01 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 12.97 | 0.0 | 38.06 |
| 0.06 | 15.397 | 0.0 | -0.06 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 14.397 | 0.0 | 36.04 |
| 0.07 | 13.562 | 0.0 | -0.20 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 12.562 | 0.0 | 38.69 |
| 0.08 | 14.174 | 0.0 | -0.19 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 13.174 | 0.0 | 37.75 |
| 0.09 | 20.598 | 0.0 | -0.17 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 19.598 | 0.0 | 30.51 |
| 0.10 | 22.739 | 0.0 | -0.12 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 21.739 | 0.0 | 28.8 |
| 0.11 | 25.085 | 0.082 | -0.12 | 0.5 | 0.0 | 305.915 | 0.327 | 0.0 | 24.085 | 0.327 | 19.46 |
| 0.12 | 27.226 | 0.173 | -0.25 | 0.5 | 0.0 | 157.376 | 0.635 | 0.0 | 26.226 | 0.636 | 22.24 |
| 0.13 | 28.45 | 0.224 | -0.02 | 0.5 | 0.0 | 127.009 | 0.787 | 0.0 | 27.45 | 0.788 | 23.2 |

Prova n. 8

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|-------|
| 0.14 | 27.124 | 0.255 | 0.00 | 0.5 | 0.0 | 106.369 | 0.94 | 0.0 | 26.124 | 0.941 | 25.39 |
| 0.15 | 27.43 | 0.367 | 0.00 | 0.5 | 0.0 | 74.741 | 1.338 | 0.0 | 26.43 | 1.339 | 28.55 |
| 0.16 | 27.838 | 0.398 | 0.00 | 0.5 | 0.0 | 69.945 | 1.43 | 0.0 | 26.838 | 1.431 | 29 |
| 0.17 | 24.269 | 0.438 | 0.00 | 0.5 | 0.0 | 55.409 | 1.805 | 0.0 | 23.269 | 1.807 | 33.91 |
| 0.18 | 23.249 | 0.591 | -0.02 | 0.5 | 0.0 | 39.338 | 2.542 | 0.0 | 22.249 | 2.546 | 39.08 |
| 0.19 | 21.21 | 0.714 | -0.06 | 0.5 | 0.0 | 29.706 | 3.366 | 0.0 | 20.21 | 3.372 | 44.97 |
| 0.20 | 21.414 | 0.755 | -0.09 | 0.5 | 0.0 | 28.363 | 3.526 | 0.0 | 20.414 | 3.532 | 45.5 |
| 0.21 | 21.108 | 0.785 | -0.14 | 0.5 | 0.0 | 26.889 | 3.719 | 0.0 | 20.108 | 3.726 | 46.64 |
| 0.22 | 20.802 | 0.816 | -0.14 | 0.5 | 0.0 | 25.493 | 3.923 | 0.0 | 19.802 | 3.931 | 47.82 |
| 0.23 | 22.026 | 0.836 | -0.03 | 0.5 | 0.0 | 26.347 | 3.796 | 0.0 | 21.026 | 3.804 | 46.11 |
| 0.24 | 20.7 | 0.826 | -0.01 | 0.5 | 0.0 | 25.061 | 3.99 | 0.0 | 19.7 | 4.0 | 48.2 |
| 0.25 | 18.762 | 0.887 | 0.00 | 0.5 | 0.0 | 21.152 | 4.728 | 0.0 | 17.762 | 4.74 | 53.24 |
| 0.26 | 18.049 | 0.918 | -0.08 | 0.5 | 0.0 | 19.661 | 5.086 | 0.0 | 17.049 | 5.101 | 55.44 |
| 0.27 | 17.539 | 0.938 | -0.19 | 0.5 | 0.0 | 18.698 | 5.348 | 0.0 | 16.539 | 5.365 | 57.03 |
| 0.28 | 16.927 | 0.938 | -0.20 | 0.5 | 0.0 | 18.046 | 5.541 | 0.0 | 15.927 | 5.56 | 58.54 |
| 0.29 | 17.335 | 0.918 | -0.35 | 0.5 | 0.0 | 18.883 | 5.296 | 0.0 | 16.335 | 5.313 | 57.12 |
| 0.30 | 14.786 | 0.867 | -0.24 | 0.5 | 0.0 | 17.054 | 5.864 | 0.0 | 13.786 | 5.888 | 62.94 |
| 0.31 | 14.174 | 0.795 | -0.19 | 0.5 | 0.0 | 17.829 | 5.609 | 0.0 | 13.174 | 5.634 | 63.13 |
| 0.32 | 14.786 | 0.775 | -0.31 | 0.4 | 0.0 | 19.079 | 5.241 | 0.0 | 13.786 | 5.264 | 60.75 |
| 0.33 | 14.684 | 0.734 | -0.25 | 0.4 | 0.0 | 20.005 | 4.999 | 0.0 | 13.684 | 5.021 | 60.02 |
| 0.34 | 14.582 | 0.704 | -0.20 | 0.4 | 0.0 | 20.713 | 4.828 | 0.0 | 13.582 | 4.85 | 59.54 |
| 0.35 | 14.99 | 0.693 | -0.21 | 0.4 | 0.0 | 21.631 | 4.623 | 0.0 | 13.99 | 4.645 | 58.06 |
| 0.36 | 14.276 | 0.653 | -0.21 | 0.4 | 0.0 | 21.862 | 4.574 | 0.0 | 13.276 | 4.597 | 59.07 |
| 0.37 | 14.48 | 0.622 | -0.17 | 0.4 | 0.0 | 23.28 | 4.296 | 0.0 | 13.48 | 4.318 | 57.58 |
| 0.38 | 13.766 | 0.602 | -0.07 | 0.4 | 0.0 | 22.867 | 4.373 | 0.0 | 12.766 | 4.397 | 59.16 |
| 0.39 | 12.542 | 0.52 | -0.07 | 0.4 | 0.0 | 24.119 | 4.146 | 0.0 | 11.542 | 4.172 | 60.56 |
| 0.40 | 12.236 | 0.52 | -0.07 | 0.4 | 0.0 | 23.531 | 4.25 | 0.0 | 11.236 | 4.277 | 61.66 |
| 0.41 | 12.338 | 0.52 | -0.06 | 0.4 | 0.0 | 23.727 | 4.215 | 0.0 | 11.338 | 4.243 | 61.29 |
| 0.42 | 12.746 | 0.52 | -0.06 | 0.4 | 0.0 | 24.512 | 4.08 | 0.0 | 11.746 | 4.106 | 59.86 |
| 0.43 | 13.052 | 0.52 | -0.07 | 0.4 | 0.0 | 25.1 | 3.984 | 0.0 | 12.052 | 4.01 | 58.83 |
| 0.44 | 13.052 | 0.5 | -0.05 | 0.4 | 0.0 | 26.104 | 3.831 | 0.0 | 12.052 | 3.856 | 58.14 |
| 0.45 | 12.542 | 0.438 | -0.04 | 0.4 | 0.0 | 28.635 | 3.492 | 0.0 | 11.542 | 3.517 | 57.55 |
| 0.46 | 11.93 | 0.459 | -0.04 | 0.5 | 0.0 | 25.991 | 3.847 | 0.0 | 10.93 | 3.877 | 60.54 |
| 0.47 | 14.99 | 0.408 | -0.06 | 0.5 | 0.0 | 36.74 | 2.722 | 0.0 | 13.99 | 2.739 | 49.22 |
| 0.48 | 15.092 | 0.387 | -0.07 | 0.5 | 0.0 | 38.997 | 2.564 | 0.0 | 14.092 | 2.58 | 48.17 |
| 0.49 | 16.621 | 0.347 | -0.04 | 0.5 | 0.0 | 47.899 | 2.088 | 0.0 | 15.621 | 2.1 | 43.14 |
| 0.50 | 17.437 | 0.316 | -0.04 | 0.5 | 0.0 | 55.18 | 1.812 | 0.0 | 16.437 | 1.823 | 40.29 |
| 0.51 | 18.253 | 0.326 | -0.04 | 0.5 | 0.0 | 55.991 | 1.786 | 0.0 | 17.253 | 1.796 | 39.19 |
| 0.52 | 18.253 | 0.275 | -0.05 | 0.5 | 0.0 | 66.375 | 1.507 | 0.0 | 17.253 | 1.515 | 37.14 |
| 0.53 | 18.864 | 0.265 | -0.05 | 0.5 | 0.0 | 71.185 | 1.405 | 0.0 | 17.864 | 1.413 | 35.7 |
| 0.54 | 19.17 | 0.235 | -0.04 | 0.5 | 0.0 | 81.574 | 1.226 | 0.0 | 18.17 | 1.233 | 33.92 |
| 0.55 | 18.355 | 0.173 | -0.04 | 0.5 | 0.0 | 106.098 | 0.943 | 0.0 | 17.355 | 0.948 | 32.11 |
| 0.56 | 14.582 | 0.214 | -0.04 | 0.5 | 0.0 | 68.14 | 1.468 | 0.0 | 13.582 | 1.479 | 41.48 |
| 0.57 | 13.766 | 0.255 | -0.05 | 0.5 | 0.0 | 53.984 | 1.852 | 0.0 | 12.766 | 1.868 | 45.71 |
| 0.58 | 13.766 | 0.296 | -0.05 | 0.5 | 0.0 | 46.507 | 2.15 | 0.0 | 12.766 | 2.168 | 47.75 |
| 0.59 | 13.97 | 0.316 | -0.05 | 0.5 | 0.0 | 44.209 | 2.262 | 0.0 | 12.97 | 2.281 | 48.13 |
| 0.60 | 13.868 | 0.326 | -0.05 | 0.5 | 0.0 | 42.54 | 2.351 | 0.0 | 12.868 | 2.371 | 48.86 |
| 0.61 | 13.46 | 0.316 | -0.04 | 0.5 | 0.0 | 42.595 | 2.348 | 0.0 | 12.46 | 2.369 | 49.55 |
| 0.62 | 13.052 | 0.337 | -0.04 | 0.5 | 0.0 | 38.73 | 2.582 | 0.0 | 12.052 | 2.606 | 51.71 |
| 0.63 | 13.256 | 0.377 | -0.04 | 0.5 | 0.0 | 35.162 | 2.844 | 0.0 | 12.256 | 2.871 | 52.84 |
| 0.64 | 13.766 | 0.418 | -0.04 | 0.5 | 0.0 | 32.933 | 3.036 | 0.0 | 12.766 | 3.064 | 52.97 |
| 0.65 | 17.335 | 0.438 | -0.05 | 0.5 | 0.0 | 39.578 | 2.527 | 0.0 | 16.335 | 2.545 | 44.93 |
| 0.66 | 18.762 | 0.459 | -0.07 | 0.5 | 0.0 | 40.876 | 2.446 | 0.0 | 17.762 | 2.463 | 42.82 |
| 0.67 | 18.559 | 0.428 | -0.05 | 0.5 | 0.0 | 43.362 | 2.306 | 0.0 | 17.559 | 2.323 | 42.22 |
| 0.68 | 20.394 | 0.398 | -0.05 | 0.5 | 0.0 | 51.241 | 1.952 | 0.0 | 19.394 | 1.964 | 38.14 |
| 0.69 | 25.391 | 0.367 | -0.04 | 0.5 | 0.0 | 69.185 | 1.445 | 0.0 | 24.391 | 1.453 | 30.67 |
| 0.70 | 22.535 | 0.255 | -0.03 | 0.6 | 0.0 | 88.373 | 1.132 | 0.0 | 21.535 | 1.139 | 30.19 |
| 0.71 | 22.637 | 0.204 | -0.03 | 0.6 | 0.0 | 110.966 | 0.901 | 0.0 | 21.637 | 0.907 | 27.99 |
| 0.72 | 22.026 | 0.245 | -0.03 | 0.6 | 0.0 | 89.902 | 1.112 | 0.0 | 21.026 | 1.119 | 30.42 |
| 0.73 | 18.762 | 0.224 | -0.04 | 0.6 | 0.0 | 83.759 | 1.194 | 0.0 | 17.762 | 1.203 | 34.06 |
| 0.74 | 15.601 | 0.204 | -0.04 | 0.5 | 0.0 | 76.475 | 1.308 | 0.0 | 14.601 | 1.32 | 38.72 |
| 0.75 | 14.48 | 0.245 | -0.04 | 0.5 | 0.0 | 59.102 | 1.692 | 0.0 | 13.48 | 1.709 | 43.42 |
| 0.76 | 13.154 | 0.235 | -0.04 | 0.5 | 0.0 | 55.974 | 1.787 | 0.0 | 12.154 | 1.807 | 46.31 |
| 0.77 | 11.829 | 0.235 | -0.04 | 0.5 | 0.0 | 50.336 | 1.987 | 0.0 | 10.829 | 2.012 | 50.32 |
| 0.78 | 10.605 | 0.224 | -0.04 | 0.5 | 0.0 | 47.344 | 2.112 | 0.0 | 9.605 | 2.143 | 53.98 |
| 0.79 | 9.177 | 0.224 | -0.05 | 0.5 | 0.0 | 40.969 | 2.441 | 0.0 | 8.177 | 2.483 | 60.16 |

Prova n. 8

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|----------|-------|-----|--------|-------|-------|
| 0.80 | 8.26 | 0.214 | -0.05 | 0.5 | 0.0 | 38.598 | 2.591 | 0.0 | 7.26 | 2.641 | 64.22 |
| 0.81 | 7.852 | 0.235 | -0.05 | 0.5 | 0.0 | 33.413 | 2.993 | 0.0 | 6.852 | 3.054 | 68.26 |
| 0.82 | 7.342 | 0.255 | -0.05 | 0.5 | 0.0 | 28.792 | 3.473 | 0.0 | 6.342 | 3.55 | 73.13 |
| 0.83 | 6.73 | 0.255 | -0.05 | 0.5 | 0.0 | 26.392 | 3.789 | 0.0 | 5.73 | 3.882 | 77.76 |
| 0.84 | 6.016 | 0.286 | -0.18 | 0.5 | 0.0 | 21.035 | 4.754 | 0.0 | 5.016 | 4.887 | 86.51 |
| 0.85 | 6.016 | 0.296 | -0.13 | 0.5 | 0.0 | 20.324 | 4.92 | 0.0 | 5.016 | 5.059 | 87.26 |
| 0.86 | 5.812 | 0.265 | -0.12 | 0.5 | 0.0 | 21.932 | 4.56 | 0.0 | 4.812 | 4.694 | 86.95 |
| 0.87 | 5.812 | 0.265 | -0.12 | 0.5 | 0.0 | 21.932 | 4.56 | 0.0 | 4.812 | 4.696 | 86.95 |
| 0.88 | 5.812 | 0.265 | -0.12 | 0.5 | 0.0 | 21.932 | 4.56 | 0.0 | 4.812 | 4.697 | 86.96 |
| 0.89 | 6.016 | 0.082 | 0.10 | 0.4 | 0.0 | 73.366 | 1.363 | 0.0 | 5.016 | 1.403 | 64.66 |
| 0.90 | 6.424 | 0.082 | 0.14 | 0.5 | 0.0 | 78.341 | 1.276 | 0.0 | 5.424 | 1.312 | 61.59 |
| 0.91 | 16.009 | 0.082 | 0.18 | 0.4 | 0.0 | 195.232 | 0.512 | 0.0 | 15.009 | 0.518 | 29.65 |
| 0.92 | 28.246 | 0.061 | 0.17 | 0.4 | 0.0 | 463.049 | 0.216 | 0.0 | 27.246 | 0.217 | 16.1 |
| 0.93 | 38.647 | 0.051 | 0.20 | 0.5 | 0.0 | 757.784 | 0.132 | 0.0 | 37.647 | 0.133 | 11 |
| 0.94 | 50.781 | 0.061 | 0.26 | 0.5 | 0.0 | 832.475 | 0.12 | 0.0 | 49.781 | 0.121 | 8.09 |
| 0.95 | 59.754 | 0.061 | 0.11 | 0.5 | 0.0 | 979.574 | 0.102 | 0.0 | 58.754 | 0.102 | 6.43 |
| 0.96 | 61.386 | 0.031 | 0.11 | 0.5 | 0.0 | 1980.194 | 0.051 | 0.0 | 60.386 | 0.051 | 5.94 |
| 0.97 | 62.508 | 0.041 | 0.11 | 0.5 | 0.0 | 1524.585 | 0.066 | 0.0 | 61.508 | 0.066 | 5.77 |
| 0.98 | 61.386 | 0.051 | 0.11 | 0.5 | 0.0 | 1203.647 | 0.083 | 0.0 | 60.386 | 0.083 | 6.02 |
| 0.99 | 60.57 | 0.051 | 0.11 | 0.6 | 0.0 | 1187.647 | 0.084 | 0.0 | 59.57 | 0.084 | 6.14 |
| 1.00 | 56.593 | 0.051 | 0.11 | 0.6 | 0.0 | 1109.667 | 0.09 | 0.0 | 55.593 | 0.09 | 6.77 |
| 1.01 | 38.953 | 0.438 | 0.10 | 0.6 | 0.0 | 88.934 | 1.124 | 0.0 | 37.953 | 1.13 | 21.77 |
| 1.02 | 30.795 | 0.571 | 0.10 | 0.6 | 0.0 | 53.932 | 1.854 | 0.0 | 29.795 | 1.866 | 30.29 |
| 1.03 | 27.94 | 0.612 | 0.10 | 0.6 | 0.0 | 45.654 | 2.19 | 0.0 | 26.94 | 2.206 | 33.91 |
| 1.04 | 26.308 | 0.591 | 0.10 | 0.6 | 0.0 | 44.514 | 2.246 | 0.0 | 25.308 | 2.264 | 35.28 |
| 1.05 | 25.391 | 0.561 | 0.09 | 0.6 | 0.0 | 45.26 | 2.209 | 0.0 | 24.391 | 2.227 | 35.7 |
| 1.06 | 23.045 | 0.551 | 0.09 | 0.6 | 0.0 | 41.824 | 2.391 | 0.0 | 22.045 | 2.413 | 38.51 |
| 1.07 | 20.394 | 0.622 | 0.09 | 0.6 | 0.0 | 32.788 | 3.05 | 0.0 | 19.394 | 3.082 | 44.38 |
| 1.08 | 17.947 | 0.704 | 0.10 | 0.6 | 0.0 | 25.493 | 3.923 | 0.0 | 16.947 | 3.969 | 51.13 |
| 1.09 | 16.621 | 0.755 | 0.16 | 0.6 | 0.0 | 22.015 | 4.542 | 0.0 | 15.621 | 4.601 | 55.45 |
| 1.10 | 16.213 | 0.734 | 0.22 | 0.6 | 0.0 | 22.089 | 4.527 | 0.0 | 15.213 | 4.588 | 55.97 |
| 1.11 | 16.621 | 0.704 | 0.24 | 0.6 | 0.0 | 23.609 | 4.236 | 0.0 | 15.621 | 4.292 | 54.21 |
| 1.12 | 16.723 | 0.704 | 0.24 | 0.6 | 0.0 | 23.754 | 4.21 | 0.0 | 15.723 | 4.266 | 53.96 |
| 1.13 | 17.131 | 0.704 | 0.25 | 0.6 | 0.0 | 24.334 | 4.11 | 0.0 | 16.131 | 4.163 | 52.99 |
| 1.14 | 17.641 | 0.714 | 0.25 | 0.6 | 0.0 | 24.707 | 4.047 | 0.0 | 16.641 | 4.099 | 52.06 |
| 1.15 | 18.457 | 0.663 | 0.25 | 0.6 | 0.0 | 27.839 | 3.592 | 0.0 | 17.457 | 3.636 | 49.07 |
| 1.16 | 18.151 | 0.622 | 0.25 | 0.6 | 0.0 | 29.182 | 3.427 | 0.0 | 17.151 | 3.47 | 48.67 |
| 1.17 | 18.457 | 0.642 | 0.25 | 0.6 | 0.0 | 28.749 | 3.478 | 0.0 | 17.457 | 3.522 | 48.55 |
| 1.18 | 18.966 | 0.632 | 0.25 | 0.6 | 0.0 | 30.009 | 3.332 | 0.0 | 17.966 | 3.373 | 47.28 |
| 1.19 | 19.68 | 0.653 | 0.25 | 0.6 | 0.0 | 30.138 | 3.318 | 0.0 | 18.68 | 3.358 | 46.43 |
| 1.20 | 20.496 | 0.693 | 0.25 | 0.6 | 0.0 | 29.576 | 3.381 | 0.0 | 19.496 | 3.42 | 45.88 |
| 1.21 | 20.802 | 0.704 | 0.26 | 0.6 | 0.0 | 29.548 | 3.384 | 0.0 | 19.802 | 3.423 | 45.6 |
| 1.22 | 21.618 | 0.704 | 0.26 | 0.6 | 0.0 | 30.707 | 3.257 | 0.0 | 20.618 | 3.293 | 44.22 |
| 1.23 | 22.026 | 0.714 | 0.26 | 0.7 | 0.0 | 30.849 | 3.242 | 0.0 | 21.026 | 3.277 | 43.78 |
| 1.24 | 22.535 | 0.714 | 0.26 | 0.7 | 0.0 | 31.562 | 3.168 | 0.0 | 21.535 | 3.203 | 42.98 |
| 1.25 | 22.229 | 0.877 | 0.26 | 0.6 | 0.0 | 25.347 | 3.945 | 0.0 | 21.229 | 3.989 | 46.7 |
| 1.26 | 23.045 | 0.887 | 0.26 | 0.7 | 0.0 | 25.981 | 3.849 | 0.0 | 22.045 | 3.891 | 45.57 |
| 1.27 | 23.147 | 0.948 | 0.26 | 0.7 | 0.0 | 24.417 | 4.096 | 0.0 | 22.147 | 4.14 | 46.5 |
| 1.28 | 23.249 | 1.02 | 0.26 | 0.7 | 0.0 | 22.793 | 4.387 | 0.0 | 22.249 | 4.435 | 47.56 |
| 1.29 | 23.147 | 1.081 | 0.27 | 0.7 | 0.0 | 21.413 | 4.67 | 0.0 | 22.147 | 4.722 | 48.72 |
| 1.30 | 23.045 | 1.142 | 0.27 | 0.7 | 0.0 | 20.18 | 4.956 | 0.0 | 22.045 | 5.011 | 49.85 |
| 1.31 | 22.841 | 1.193 | 0.32 | 0.7 | 0.0 | 19.146 | 5.223 | 0.0 | 21.841 | 5.282 | 50.97 |
| 1.32 | 22.331 | 1.224 | 0.33 | 0.7 | 0.0 | 18.244 | 5.481 | 0.0 | 21.331 | 5.545 | 52.33 |
| 1.33 | 22.026 | 1.234 | 0.33 | 0.7 | 0.0 | 17.849 | 5.602 | 0.0 | 21.026 | 5.67 | 53.03 |
| 1.34 | 22.229 | 1.203 | 0.33 | 0.7 | 0.0 | 18.478 | 5.412 | 0.0 | 21.229 | 5.477 | 52.2 |
| 1.35 | 22.535 | 1.203 | 0.33 | 0.7 | 0.0 | 18.732 | 5.338 | 0.0 | 21.535 | 5.402 | 51.66 |
| 1.36 | 22.535 | 1.234 | 0.33 | 0.8 | 0.0 | 18.262 | 5.476 | 0.0 | 21.535 | 5.541 | 52.13 |
| 1.37 | 22.637 | 1.254 | 0.33 | 0.8 | 0.0 | 18.052 | 5.54 | 0.0 | 21.637 | 5.606 | 52.24 |
| 1.38 | 23.861 | 1.295 | 0.34 | 0.8 | 0.0 | 18.425 | 5.427 | 0.0 | 22.861 | 5.489 | 50.77 |
| 1.39 | 24.779 | 1.295 | 0.34 | 0.8 | 0.0 | 19.134 | 5.226 | 0.0 | 23.779 | 5.284 | 49.32 |
| 1.40 | 25.391 | 1.285 | 0.34 | 0.8 | 0.0 | 19.76 | 5.061 | 0.0 | 24.391 | 5.116 | 48.27 |
| 1.41 | 25.696 | 1.264 | 0.34 | 0.8 | 0.0 | 20.329 | 4.919 | 0.0 | 24.696 | 4.973 | 47.54 |
| 1.42 | 26.206 | 1.244 | 0.34 | 0.8 | 0.0 | 21.066 | 4.747 | 0.0 | 25.206 | 4.798 | 46.54 |
| 1.43 | 26.512 | 1.234 | 0.34 | 0.8 | 0.0 | 21.485 | 4.654 | 0.0 | 25.512 | 4.704 | 45.98 |
| 1.44 | 26.614 | 1.213 | 0.34 | 0.8 | 0.0 | 21.941 | 4.558 | 0.0 | 25.614 | 4.607 | 45.55 |
| 1.45 | 26.818 | 1.264 | 0.34 | 0.8 | 0.0 | 21.217 | 4.713 | 0.0 | 25.818 | 4.764 | 45.97 |

Prova n. 8

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 1.46 | 26.614 | 1.315 | 0.34 | 0.8 | 0.0 | 20.239 | 4.941 | 0.0 | 25.614 | 4.995 | 46.93 |
| 1.47 | 26.308 | 1.356 | 0.34 | 0.8 | 0.0 | 19.401 | 5.154 | 0.0 | 25.308 | 5.212 | 47.89 |
| 1.48 | 25.696 | 1.417 | 0.34 | 0.8 | 0.0 | 18.134 | 5.514 | 0.0 | 24.696 | 5.578 | 49.57 |
| 1.49 | 25.085 | 1.479 | 0.34 | 0.8 | 0.0 | 16.961 | 5.896 | 0.0 | 24.085 | 5.966 | 51.28 |
| 1.50 | 24.575 | 1.56 | 0.34 | 0.8 | 0.0 | 15.753 | 6.348 | 0.0 | 23.575 | 6.425 | 53.1 |
| 1.51 | 24.779 | 1.672 | 0.34 | 0.8 | 0.0 | 14.82 | 6.748 | 0.0 | 23.779 | 6.829 | 54.11 |
| 1.52 | 25.085 | 1.723 | 0.35 | 0.8 | 0.0 | 14.559 | 6.869 | 0.0 | 24.085 | 6.951 | 54.2 |
| 1.53 | 25.289 | 1.733 | 0.36 | 0.8 | 0.0 | 14.593 | 6.853 | 0.0 | 24.289 | 6.935 | 53.99 |
| 1.54 | 25.391 | 1.744 | 0.37 | 0.8 | 0.0 | 14.559 | 6.869 | 0.0 | 24.391 | 6.951 | 53.95 |
| 1.55 | 25.391 | 1.744 | 0.37 | 0.8 | 0.0 | 14.559 | 6.869 | 0.0 | 24.391 | 6.952 | 53.95 |
| 1.56 | 25.492 | 1.713 | 0.38 | 0.8 | 0.0 | 14.881 | 6.72 | 0.0 | 24.492 | 6.802 | 53.44 |
| 1.57 | 25.391 | 1.693 | 0.38 | 0.8 | 0.0 | 14.998 | 6.668 | 0.0 | 24.391 | 6.75 | 53.38 |
| 1.58 | 25.798 | 1.611 | 0.38 | 0.8 | 0.0 | 16.014 | 6.245 | 0.0 | 24.798 | 6.321 | 51.8 |
| 1.59 | 26.206 | 1.581 | 0.38 | 0.8 | 0.0 | 16.576 | 6.033 | 0.0 | 25.206 | 6.106 | 50.84 |
| 1.60 | 26.818 | 1.53 | 0.38 | 0.9 | 0.0 | 17.528 | 5.705 | 0.0 | 25.818 | 5.773 | 49.35 |
| 1.61 | 27.022 | 1.509 | 0.38 | 0.9 | 0.0 | 17.907 | 5.584 | 0.0 | 26.022 | 5.651 | 48.81 |
| 1.62 | 26.716 | 1.489 | 0.38 | 0.9 | 0.0 | 17.942 | 5.573 | 0.0 | 25.716 | 5.641 | 49 |
| 1.63 | 26.716 | 1.468 | 0.38 | 0.9 | 0.0 | 18.199 | 5.495 | 0.0 | 25.716 | 5.562 | 48.75 |
| 1.64 | 26.002 | 1.468 | 0.38 | 0.9 | 0.0 | 17.713 | 5.646 | 0.0 | 25.002 | 5.717 | 49.78 |
| 1.65 | 25.594 | 1.489 | 0.38 | 0.9 | 0.0 | 17.189 | 5.818 | 0.0 | 24.594 | 5.893 | 50.65 |
| 1.66 | 25.594 | 1.489 | 0.38 | 0.9 | 0.0 | 17.189 | 5.818 | 0.0 | 24.594 | 5.893 | 50.65 |
| 1.67 | 24.881 | 1.509 | 0.38 | 0.9 | 0.0 | 16.488 | 6.065 | 0.0 | 23.881 | 6.146 | 52 |
| 1.68 | 24.167 | 1.55 | 0.38 | 0.9 | 0.0 | 15.592 | 6.414 | 0.0 | 23.167 | 6.503 | 53.68 |
| 1.69 | 23.555 | 1.581 | 0.37 | 0.9 | 0.0 | 14.899 | 6.712 | 0.0 | 22.555 | 6.808 | 55.1 |
| 1.70 | 22.841 | 1.642 | 0.37 | 0.9 | 0.0 | 13.91 | 7.189 | 0.0 | 21.841 | 7.296 | 57.13 |
| 1.71 | 22.637 | 1.662 | 0.37 | 0.9 | 0.0 | 13.62 | 7.342 | 0.0 | 21.637 | 7.453 | 57.76 |
| 1.72 | 22.331 | 1.693 | 0.37 | 0.9 | 0.0 | 13.19 | 7.581 | 0.0 | 21.331 | 7.698 | 58.72 |
| 1.73 | 21.822 | 1.713 | 0.37 | 0.9 | 0.0 | 12.739 | 7.85 | 0.0 | 20.822 | 7.974 | 59.96 |
| 1.74 | 21.516 | 1.744 | 0.37 | 0.9 | 0.0 | 12.337 | 8.106 | 0.0 | 20.516 | 8.237 | 60.95 |
| 1.75 | 21.21 | 1.764 | 0.37 | 0.9 | 0.0 | 12.024 | 8.317 | 0.0 | 20.21 | 8.454 | 61.83 |
| 1.76 | 21.414 | 1.764 | 0.37 | 0.9 | 0.0 | 12.139 | 8.238 | 0.0 | 20.414 | 8.373 | 61.41 |
| 1.77 | 21.618 | 1.744 | 0.37 | 1.0 | 0.0 | 12.396 | 8.067 | 0.0 | 20.618 | 8.2 | 60.75 |
| 1.78 | 21.414 | 1.723 | 0.37 | 0.9 | 0.0 | 12.428 | 8.046 | 0.0 | 20.414 | 8.18 | 60.91 |
| 1.79 | 21.21 | 1.693 | 0.37 | 1.0 | 0.0 | 12.528 | 7.982 | 0.0 | 20.21 | 8.117 | 60.96 |
| 1.80 | 20.802 | 1.683 | 0.37 | 1.0 | 0.0 | 12.36 | 8.091 | 0.0 | 19.802 | 8.231 | 61.7 |
| 1.81 | 19.68 | 1.632 | 0.37 | 0.9 | 0.0 | 12.059 | 8.293 | 0.0 | 18.68 | 8.446 | 63.52 |
| 1.82 | 19.374 | 1.581 | 0.37 | 0.9 | 0.0 | 12.254 | 8.16 | 0.0 | 18.374 | 8.314 | 63.55 |
| 1.83 | 18.966 | 1.54 | 0.37 | 0.9 | 0.0 | 12.316 | 8.12 | 0.0 | 17.966 | 8.277 | 63.95 |
| 1.84 | 18.864 | 1.499 | 0.37 | 1.0 | 0.0 | 12.584 | 7.946 | 0.0 | 17.864 | 8.102 | 63.62 |
| 1.85 | 18.864 | 1.448 | 0.37 | 0.9 | 0.0 | 13.028 | 7.676 | 0.0 | 17.864 | 7.827 | 62.89 |
| 1.86 | 18.762 | 1.407 | 0.37 | 1.0 | 0.0 | 13.335 | 7.499 | 0.0 | 17.762 | 7.649 | 62.53 |
| 1.87 | 18.762 | 1.407 | 0.37 | 1.0 | 0.0 | 13.335 | 7.499 | 0.0 | 17.762 | 7.649 | 62.53 |
| 1.88 | 18.762 | 1.407 | 0.37 | 1.0 | 0.0 | 13.335 | 7.499 | 0.0 | 17.762 | 7.65 | 62.53 |
| 1.89 | 17.743 | 1.132 | 0.39 | 1.0 | 0.0 | 15.674 | 6.38 | 0.0 | 16.743 | 6.517 | 60.55 |
| 1.90 | 17.539 | 1.111 | 0.39 | 1.0 | 0.0 | 15.787 | 6.334 | 0.0 | 16.539 | 6.473 | 60.68 |
| 1.91 | 17.233 | 1.071 | 0.39 | 1.0 | 0.0 | 16.091 | 6.215 | 0.0 | 16.233 | 6.354 | 60.73 |
| 1.92 | 17.437 | 1.02 | 0.39 | 1.0 | 0.0 | 17.095 | 5.85 | 0.0 | 16.437 | 5.979 | 59.25 |
| 1.93 | 17.641 | 0.979 | 0.40 | 1.0 | 0.0 | 18.019 | 5.55 | 0.0 | 16.641 | 5.672 | 57.96 |
| 1.94 | 17.947 | 0.948 | 0.41 | 1.0 | 0.0 | 18.931 | 5.282 | 0.0 | 16.947 | 5.397 | 56.62 |
| 1.95 | 18.049 | 0.897 | 0.43 | 1.0 | 0.0 | 20.122 | 4.97 | 0.0 | 17.049 | 5.078 | 55.35 |
| 1.96 | 18.049 | 0.867 | 0.43 | 1.0 | 0.0 | 20.818 | 4.804 | 0.0 | 17.049 | 4.909 | 54.73 |
| 1.97 | 18.151 | 0.816 | 0.43 | 1.0 | 0.0 | 22.244 | 4.496 | 0.0 | 17.151 | 4.594 | 53.41 |
| 1.98 | 18.151 | 0.795 | 0.43 | 1.0 | 0.0 | 22.831 | 4.38 | 0.0 | 17.151 | 4.476 | 52.95 |
| 1.99 | 18.253 | 0.785 | 0.42 | 1.0 | 0.0 | 23.252 | 4.301 | 0.0 | 17.253 | 4.395 | 52.51 |
| 2.00 | 18.864 | 0.785 | 0.43 | 1.0 | 0.0 | 24.031 | 4.161 | 0.0 | 17.864 | 4.25 | 51.2 |
| 2.01 | 19.68 | 0.785 | 0.43 | 1.0 | 0.0 | 25.07 | 3.989 | 0.0 | 18.68 | 4.071 | 49.56 |
| 2.02 | 22.331 | 0.846 | 0.45 | 1.1 | 0.0 | 26.396 | 3.788 | 0.0 | 21.331 | 3.857 | 46.06 |
| 2.03 | 22.433 | 0.887 | 0.46 | 1.1 | 0.0 | 25.291 | 3.954 | 0.0 | 21.433 | 4.026 | 46.67 |
| 2.04 | 22.535 | 0.918 | 0.47 | 1.0 | 0.0 | 24.548 | 4.074 | 0.0 | 21.535 | 4.148 | 47.07 |
| 2.05 | 23.351 | 0.928 | 0.49 | 1.1 | 0.0 | 25.163 | 3.974 | 0.0 | 22.351 | 4.044 | 45.94 |
| 2.06 | 23.351 | 0.908 | 0.51 | 1.0 | 0.0 | 25.717 | 3.888 | 0.0 | 22.351 | 3.957 | 45.59 |
| 2.07 | 23.963 | 0.877 | 0.51 | 1.1 | 0.0 | 27.324 | 3.66 | 0.0 | 22.963 | 3.723 | 44.1 |
| 2.08 | 24.371 | 0.846 | 0.52 | 1.1 | 0.0 | 28.807 | 3.471 | 0.0 | 23.371 | 3.531 | 42.95 |
| 2.09 | 24.983 | 0.857 | 0.53 | 1.1 | 0.0 | 29.152 | 3.43 | 0.0 | 23.983 | 3.488 | 42.29 |
| 2.10 | 25.289 | 0.908 | 0.53 | 1.1 | 0.0 | 27.851 | 3.59 | 0.0 | 24.289 | 3.65 | 42.76 |
| 2.11 | 25.594 | 0.918 | 0.53 | 1.1 | 0.0 | 27.88 | 3.587 | 0.0 | 24.594 | 3.646 | 42.52 |

Prova n. 8

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 2.12 | 25.594 | 0.938 | 0.53 | 1.1 | 0.0 | 27.286 | 3.665 | 0.0 | 24.594 | 3.726 | 42.85 |
| 2.13 | 25.492 | 0.969 | 0.53 | 1.1 | 0.0 | 26.308 | 3.801 | 0.0 | 24.492 | 3.865 | 43.51 |
| 2.14 | 25.492 | 0.969 | 0.53 | 1.1 | 0.0 | 26.308 | 3.801 | 0.0 | 24.492 | 3.865 | 43.51 |
| 2.15 | 25.492 | 0.979 | 0.53 | 1.1 | 0.0 | 26.039 | 3.84 | 0.0 | 24.492 | 3.905 | 43.67 |
| 2.16 | 25.289 | 0.999 | 0.53 | 1.1 | 0.0 | 25.314 | 3.95 | 0.0 | 24.289 | 4.018 | 44.28 |
| 2.17 | 25.085 | 1.02 | 0.53 | 1.1 | 0.0 | 24.593 | 4.066 | 0.0 | 24.085 | 4.137 | 44.91 |
| 2.18 | 24.575 | 1.06 | 0.53 | 1.1 | 0.0 | 23.184 | 4.313 | 0.0 | 23.575 | 4.39 | 46.29 |
| 2.19 | 23.963 | 1.111 | 0.53 | 1.1 | 0.0 | 21.569 | 4.636 | 0.0 | 22.963 | 4.721 | 48.02 |
| 2.20 | 23.249 | 1.183 | 0.53 | 1.1 | 0.0 | 19.653 | 5.088 | 0.0 | 22.249 | 5.185 | 50.28 |
| 2.21 | 22.841 | 1.224 | 0.53 | 1.1 | 0.0 | 18.661 | 5.359 | 0.0 | 21.841 | 5.463 | 51.58 |
| 2.22 | 22.739 | 1.244 | 0.53 | 1.1 | 0.0 | 18.279 | 5.471 | 0.0 | 21.739 | 5.578 | 52.06 |
| 2.23 | 22.739 | 1.264 | 0.53 | 1.1 | 0.0 | 17.99 | 5.559 | 0.0 | 21.739 | 5.668 | 52.35 |
| 2.24 | 22.739 | 1.285 | 0.53 | 1.1 | 0.0 | 17.696 | 5.651 | 0.0 | 21.739 | 5.763 | 52.66 |
| 2.25 | 23.045 | 1.285 | 0.54 | 1.1 | 0.0 | 17.934 | 5.576 | 0.0 | 22.045 | 5.686 | 52.13 |
| 2.26 | 22.841 | 1.285 | 0.55 | 1.1 | 0.0 | 17.775 | 5.626 | 0.0 | 21.841 | 5.738 | 52.49 |
| 2.27 | 22.739 | 1.305 | 0.55 | 1.1 | 0.0 | 17.425 | 5.739 | 0.0 | 21.739 | 5.854 | 52.96 |
| 2.28 | 22.943 | 1.305 | 0.55 | 1.1 | 0.0 | 17.581 | 5.688 | 0.0 | 21.943 | 5.802 | 52.6 |
| 2.29 | 22.943 | 1.315 | 0.55 | 1.0 | 0.0 | 17.447 | 5.732 | 0.0 | 21.943 | 5.847 | 52.74 |
| 2.30 | 22.841 | 1.305 | 0.56 | 1.1 | 0.0 | 17.503 | 5.713 | 0.0 | 21.841 | 5.829 | 52.78 |
| 2.31 | 23.147 | 1.305 | 0.56 | 1.0 | 0.0 | 17.737 | 5.638 | 0.0 | 22.147 | 5.751 | 52.25 |
| 2.32 | 23.045 | 1.295 | 0.56 | 1.0 | 0.0 | 17.795 | 5.619 | 0.0 | 22.045 | 5.733 | 52.29 |
| 2.33 | 22.943 | 1.285 | 0.56 | 1.0 | 0.0 | 17.854 | 5.601 | 0.0 | 21.943 | 5.715 | 52.32 |
| 2.34 | 22.841 | 1.295 | 0.56 | 1.0 | 0.0 | 17.638 | 5.67 | 0.0 | 21.841 | 5.787 | 52.64 |
| 2.35 | 23.147 | 1.264 | 0.56 | 1.0 | 0.0 | 18.313 | 5.461 | 0.0 | 22.147 | 5.572 | 51.67 |
| 2.36 | 23.147 | 1.285 | 0.56 | 1.0 | 0.0 | 18.013 | 5.551 | 0.0 | 22.147 | 5.665 | 51.97 |
| 2.37 | 23.147 | 1.295 | 0.56 | 1.0 | 0.0 | 17.874 | 5.595 | 0.0 | 22.147 | 5.71 | 52.12 |
| 2.38 | 22.943 | 1.295 | 0.56 | 1.0 | 0.0 | 17.717 | 5.644 | 0.0 | 21.943 | 5.762 | 52.47 |
| 2.39 | 22.637 | 1.315 | 0.56 | 1.0 | 0.0 | 17.214 | 5.809 | 0.0 | 21.637 | 5.933 | 53.3 |
| 2.40 | 22.841 | 1.315 | 0.56 | 1.0 | 0.0 | 17.37 | 5.757 | 0.0 | 21.841 | 5.879 | 52.94 |
| 2.41 | 22.841 | 1.315 | 0.56 | 1.0 | 0.0 | 17.37 | 5.757 | 0.0 | 21.841 | 5.88 | 52.94 |
| 2.42 | 22.739 | 1.336 | 0.56 | 1.0 | 0.0 | 17.02 | 5.875 | 0.0 | 21.739 | 6.001 | 53.42 |
| 2.43 | 22.841 | 1.366 | 0.56 | 1.0 | 0.0 | 16.721 | 5.98 | 0.0 | 21.841 | 6.109 | 53.66 |
| 2.44 | 22.943 | 1.387 | 0.56 | 1.0 | 0.0 | 16.541 | 6.045 | 0.0 | 21.943 | 6.175 | 53.77 |
| 2.45 | 23.045 | 1.417 | 0.56 | 1.0 | 0.0 | 16.263 | 6.149 | 0.0 | 22.045 | 6.281 | 54 |
| 2.46 | 23.045 | 1.438 | 0.56 | 1.0 | 0.0 | 16.026 | 6.24 | 0.0 | 22.045 | 6.374 | 54.29 |
| 2.47 | 23.657 | 1.438 | 0.57 | 1.0 | 0.0 | 16.451 | 6.079 | 0.0 | 22.657 | 6.206 | 53.23 |
| 2.48 | 23.861 | 1.468 | 0.57 | 1.0 | 0.0 | 16.254 | 6.152 | 0.0 | 22.861 | 6.281 | 53.28 |
| 2.49 | 23.963 | 1.53 | 0.57 | 1.0 | 0.0 | 15.662 | 6.385 | 0.0 | 22.963 | 6.519 | 53.9 |
| 2.50 | 24.167 | 1.54 | 0.57 | 1.0 | 0.0 | 15.693 | 6.372 | 0.0 | 23.167 | 6.505 | 53.68 |
| 2.51 | 25.492 | 1.55 | 0.57 | 1.0 | 0.0 | 16.446 | 6.08 | 0.0 | 24.492 | 6.201 | 51.68 |
| 2.52 | 24.779 | 1.56 | 0.57 | 1.1 | 0.0 | 15.884 | 6.296 | 0.0 | 23.779 | 6.425 | 52.93 |
| 2.53 | 23.657 | 1.57 | 0.57 | 1.1 | 0.0 | 15.068 | 6.637 | 0.0 | 22.657 | 6.78 | 54.93 |
| 2.54 | 23.759 | 1.601 | 0.57 | 1.0 | 0.0 | 14.84 | 6.738 | 0.0 | 22.759 | 6.884 | 55.14 |
| 2.55 | 23.759 | 1.591 | 0.57 | 1.1 | 0.0 | 14.933 | 6.696 | 0.0 | 22.759 | 6.841 | 55.02 |
| 2.56 | 23.555 | 1.54 | 0.58 | 1.1 | 0.0 | 15.295 | 6.538 | 0.0 | 22.555 | 6.681 | 54.74 |
| 2.57 | 24.269 | 1.53 | 0.57 | 1.1 | 0.0 | 15.862 | 6.304 | 0.0 | 23.269 | 6.439 | 53.4 |
| 2.58 | 23.963 | 1.54 | 0.58 | 1.1 | 0.0 | 15.56 | 6.427 | 0.0 | 22.963 | 6.566 | 54.04 |
| 2.59 | 24.065 | 1.57 | 0.58 | 1.1 | 0.0 | 15.328 | 6.524 | 0.0 | 23.065 | 6.666 | 54.24 |
| 2.60 | 24.473 | 1.56 | 0.58 | 1.1 | 0.0 | 15.688 | 6.374 | 0.0 | 23.473 | 6.511 | 53.44 |
| 2.61 | 23.147 | 1.55 | 0.58 | 1.1 | 0.0 | 14.934 | 6.696 | 0.0 | 22.147 | 6.849 | 55.59 |
| 2.62 | 22.331 | 1.57 | 0.58 | 1.1 | 0.0 | 14.224 | 7.031 | 0.0 | 21.331 | 7.197 | 57.35 |
| 2.63 | 21.414 | 1.53 | 0.58 | 1.1 | 0.0 | 13.996 | 7.145 | 0.0 | 20.414 | 7.323 | 58.62 |
| 2.64 | 21.924 | 1.519 | 0.58 | 1.1 | 0.0 | 14.433 | 6.928 | 0.0 | 20.924 | 7.097 | 57.47 |
| 2.65 | 20.802 | 1.479 | 0.58 | 1.1 | 0.0 | 14.065 | 7.11 | 0.0 | 19.802 | 7.293 | 59.18 |
| 2.66 | 22.127 | 1.458 | 0.58 | 1.1 | 0.0 | 15.176 | 6.589 | 0.0 | 21.127 | 6.75 | 56.27 |
| 2.67 | 21.72 | 1.438 | 0.58 | 1.1 | 0.0 | 15.104 | 6.621 | 0.0 | 20.72 | 6.785 | 56.78 |
| 2.68 | 21.924 | 1.417 | 0.59 | 1.1 | 0.0 | 15.472 | 6.463 | 0.0 | 20.924 | 6.623 | 56.1 |
| 2.69 | 27.43 | 1.448 | 0.60 | 1.1 | 0.0 | 18.943 | 5.279 | 0.0 | 26.43 | 5.383 | 47.66 |
| 2.70 | 33.956 | 1.458 | 0.61 | 1.1 | 0.0 | 23.289 | 4.294 | 0.0 | 32.956 | 4.362 | 40.25 |
| 2.71 | 39.055 | 1.377 | 0.61 | 1.1 | 0.0 | 28.362 | 3.526 | 0.0 | 38.055 | 3.575 | 34.94 |
| 2.72 | 39.768 | 1.295 | 0.61 | 1.1 | 0.0 | 30.709 | 3.256 | 0.0 | 38.768 | 3.301 | 33.52 |
| 2.73 | 41.91 | 1.275 | 0.61 | 1.1 | 0.0 | 32.871 | 3.042 | 0.0 | 40.91 | 3.082 | 31.79 |
| 2.74 | 38.545 | 1.234 | 0.61 | 1.1 | 0.0 | 31.236 | 3.201 | 0.0 | 37.545 | 3.247 | 33.78 |
| 2.75 | 37.729 | 1.254 | 0.61 | 1.1 | 0.0 | 30.087 | 3.324 | 0.0 | 36.729 | 3.372 | 34.65 |
| 2.76 | 35.689 | 1.326 | 0.61 | 1.1 | 0.0 | 26.915 | 3.715 | 0.0 | 34.689 | 3.773 | 37.18 |
| 2.77 | 35.078 | 1.438 | 0.61 | 1.1 | 0.0 | 24.394 | 4.099 | 0.0 | 34.078 | 4.165 | 38.97 |

Prova n. 8

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 2.78 | 39.564 | 1.54 | 0.61 | 1.1 | 0.0 | 25.691 | 3.892 | 0.0 | 38.564 | 3.947 | 36.18 |
| 2.79 | 39.972 | 1.591 | 0.61 | 1.1 | 0.0 | 25.124 | 3.98 | 0.0 | 38.972 | 4.036 | 36.35 |
| 2.80 | 40.482 | 1.703 | 0.62 | 1.1 | 0.0 | 23.771 | 4.207 | 0.0 | 39.482 | 4.265 | 36.99 |
| 2.81 | 42.623 | 1.744 | 0.62 | 1.1 | 0.0 | 24.44 | 4.092 | 0.0 | 41.623 | 4.146 | 35.75 |
| 2.82 | 44.357 | 1.825 | 0.62 | 1.1 | 0.0 | 24.305 | 4.114 | 0.0 | 43.357 | 4.167 | 35.21 |
| 2.83 | 43.745 | 1.835 | 0.62 | 1.1 | 0.0 | 23.839 | 4.195 | 0.0 | 42.745 | 4.249 | 35.72 |
| 2.84 | 45.479 | 1.846 | 0.62 | 1.1 | 0.0 | 24.637 | 4.059 | 0.0 | 44.479 | 4.11 | 34.63 |
| 2.85 | 43.133 | 1.897 | 0.62 | 1.2 | 0.0 | 22.737 | 4.398 | 0.0 | 42.133 | 4.456 | 36.67 |
| 2.86 | 37.729 | 2.07 | 0.62 | 1.1 | 0.0 | 18.227 | 5.486 | 0.0 | 36.729 | 5.57 | 42.48 |
| 2.87 | 37.729 | 2.07 | 0.62 | 1.1 | 0.0 | 18.227 | 5.486 | 0.0 | 36.729 | 5.571 | 42.48 |
| 2.88 | 37.729 | 2.07 | 0.62 | 1.1 | 0.0 | 18.227 | 5.486 | 0.0 | 36.729 | 5.571 | 42.48 |
| 2.89 | 41.298 | 2.009 | 0.61 | 1.2 | 0.0 | 20.556 | 4.865 | 0.0 | 40.298 | 4.933 | 38.96 |
| 2.90 | 34.568 | 1.999 | 0.61 | 1.2 | 0.0 | 17.293 | 5.783 | 0.0 | 33.568 | 5.881 | 44.94 |
| 2.91 | 30.999 | 2.182 | 0.61 | 1.2 | 0.0 | 14.207 | 7.039 | 0.0 | 29.999 | 7.173 | 50.61 |
| 2.92 | 30.897 | 2.254 | 0.62 | 1.2 | 0.0 | 13.708 | 7.295 | 0.0 | 29.897 | 7.435 | 51.36 |
| 2.93 | 30.387 | 2.294 | 0.62 | 1.2 | 0.0 | 13.246 | 7.549 | 0.0 | 29.387 | 7.697 | 52.36 |
| 2.94 | 29.673 | 2.315 | 0.62 | 1.2 | 0.0 | 12.818 | 7.802 | 0.0 | 28.673 | 7.958 | 53.49 |
| 2.95 | 29.265 | 2.223 | 0.62 | 1.2 | 0.0 | 13.165 | 7.596 | 0.0 | 28.265 | 7.751 | 53.24 |
| 2.96 | 28.756 | 2.223 | 0.62 | 1.2 | 0.0 | 12.936 | 7.731 | 0.0 | 27.756 | 7.892 | 53.94 |
| 2.97 | 27.736 | 2.223 | 0.62 | 1.2 | 0.0 | 12.477 | 8.015 | 0.0 | 26.736 | 8.189 | 55.42 |
| 2.98 | 28.246 | 2.223 | 0.62 | 1.2 | 0.0 | 12.706 | 7.87 | 0.0 | 27.246 | 8.039 | 54.67 |
| 2.99 | 28.348 | 2.203 | 0.62 | 1.2 | 0.0 | 12.868 | 7.771 | 0.0 | 27.348 | 7.937 | 54.35 |
| 3.00 | 28.348 | 2.213 | 0.62 | 1.2 | 0.0 | 12.81 | 7.807 | 0.0 | 27.348 | 7.974 | 54.44 |
| 3.01 | 28.756 | 2.09 | 0.63 | 1.2 | 0.0 | 13.759 | 7.268 | 0.0 | 27.756 | 7.422 | 52.73 |
| 3.02 | 28.45 | 2.09 | 0.63 | 1.2 | 0.0 | 13.612 | 7.346 | 0.0 | 27.45 | 7.504 | 53.15 |
| 3.03 | 28.348 | 2.121 | 0.62 | 1.2 | 0.0 | 13.365 | 7.482 | 0.0 | 27.348 | 7.644 | 53.59 |
| 3.04 | 28.45 | 2.111 | 0.62 | 1.2 | 0.0 | 13.477 | 7.42 | 0.0 | 27.45 | 7.581 | 53.36 |
| 3.05 | 28.246 | 1.917 | 0.62 | 1.2 | 0.0 | 14.734 | 6.787 | 0.0 | 27.246 | 6.936 | 51.76 |
| 3.06 | 28.348 | 1.907 | 0.62 | 1.2 | 0.0 | 14.865 | 6.727 | 0.0 | 27.348 | 6.875 | 51.52 |
| 3.07 | 26.92 | 1.917 | 0.62 | 1.2 | 0.0 | 14.043 | 7.121 | 0.0 | 25.92 | 7.286 | 53.68 |
| 3.08 | 26.206 | 1.937 | 0.62 | 1.2 | 0.0 | 13.529 | 7.391 | 0.0 | 25.206 | 7.568 | 54.98 |
| 3.09 | 25.9 | 1.958 | 0.62 | 1.2 | 0.0 | 13.228 | 7.56 | 0.0 | 24.9 | 7.743 | 55.68 |
| 3.10 | 25.391 | 1.917 | 0.63 | 1.2 | 0.0 | 13.245 | 7.55 | 0.0 | 24.391 | 7.738 | 56.08 |
| 3.11 | 24.677 | 1.897 | 0.63 | 1.2 | 0.0 | 13.008 | 7.687 | 0.0 | 23.677 | 7.885 | 57.06 |
| 3.12 | 24.269 | 1.866 | 0.63 | 1.2 | 0.0 | 13.006 | 7.689 | 0.0 | 23.269 | 7.89 | 57.43 |
| 3.13 | 24.167 | 1.825 | 0.63 | 1.2 | 0.0 | 13.242 | 7.552 | 0.0 | 23.167 | 7.751 | 57.15 |
| 3.14 | 23.861 | 1.764 | 0.63 | 1.2 | 0.0 | 13.527 | 7.393 | 0.0 | 22.861 | 7.591 | 57 |
| 3.15 | 23.555 | 1.754 | 0.63 | 1.2 | 0.0 | 13.429 | 7.446 | 0.0 | 22.555 | 7.65 | 57.43 |
| 3.16 | 22.739 | 1.733 | 0.63 | 1.2 | 0.0 | 13.121 | 7.621 | 0.0 | 21.739 | 7.838 | 58.69 |
| 3.17 | 22.331 | 1.693 | 0.63 | 1.2 | 0.0 | 13.19 | 7.581 | 0.0 | 21.331 | 7.801 | 58.99 |
| 3.18 | 21.618 | 1.642 | 0.63 | 1.1 | 0.0 | 13.166 | 7.596 | 0.0 | 20.618 | 7.824 | 59.77 |
| 3.19 | 21.006 | 1.581 | 0.63 | 1.2 | 0.0 | 13.287 | 7.526 | 0.0 | 20.006 | 7.761 | 60.24 |
| 3.20 | 20.7 | 1.458 | 0.63 | 1.2 | 0.0 | 14.198 | 7.043 | 0.0 | 19.7 | 7.267 | 59.21 |
| 3.21 | 20.802 | 1.417 | 0.63 | 1.1 | 0.0 | 14.68 | 6.812 | 0.0 | 19.802 | 7.027 | 58.43 |
| 3.22 | 20.292 | 1.356 | 0.63 | 1.1 | 0.0 | 14.965 | 6.682 | 0.0 | 19.292 | 6.9 | 58.61 |
| 3.23 | 19.578 | 1.326 | 0.63 | 1.2 | 0.0 | 14.765 | 6.773 | 0.0 | 18.578 | 7.002 | 59.72 |
| 3.24 | 18.966 | 1.305 | 0.63 | 1.2 | 0.0 | 14.533 | 6.881 | 0.0 | 17.966 | 7.122 | 60.8 |
| 3.25 | 18.966 | 1.234 | 0.63 | 1.1 | 0.0 | 15.37 | 6.506 | 0.0 | 17.966 | 6.736 | 59.66 |
| 3.26 | 19.476 | 1.152 | 0.64 | 1.1 | 0.0 | 16.906 | 5.915 | 0.0 | 18.476 | 6.118 | 57.16 |
| 3.27 | 18.864 | 1.122 | 0.63 | 1.1 | 0.0 | 16.813 | 5.948 | 0.0 | 17.864 | 6.16 | 58.01 |
| 3.28 | 18.559 | 1.091 | 0.64 | 1.1 | 0.0 | 17.011 | 5.879 | 0.0 | 17.559 | 6.092 | 58.17 |
| 3.29 | 18.559 | 1.04 | 0.64 | 1.1 | 0.0 | 17.845 | 5.604 | 0.0 | 17.559 | 5.808 | 57.25 |
| 3.30 | 18.457 | 1.01 | 0.63 | 1.1 | 0.0 | 18.274 | 5.472 | 0.0 | 17.457 | 5.674 | 56.92 |
| 3.31 | 18.661 | 1.02 | 0.64 | 1.1 | 0.0 | 18.295 | 5.466 | 0.0 | 17.661 | 5.666 | 56.65 |
| 3.32 | 18.457 | 0.999 | 0.64 | 1.1 | 0.0 | 18.475 | 5.413 | 0.0 | 17.457 | 5.613 | 56.72 |
| 3.33 | 17.743 | 0.989 | 0.64 | 1.1 | 0.0 | 17.94 | 5.574 | 0.0 | 16.743 | 5.79 | 58.22 |
| 3.34 | 18.355 | 0.959 | 0.64 | 1.1 | 0.0 | 19.14 | 5.225 | 0.0 | 17.355 | 5.421 | 56.19 |
| 3.35 | 17.743 | 0.938 | 0.64 | 1.1 | 0.0 | 18.916 | 5.287 | 0.0 | 16.743 | 5.492 | 57.21 |
| 3.36 | 17.131 | 0.928 | 0.64 | 1.1 | 0.0 | 18.46 | 5.417 | 0.0 | 16.131 | 5.637 | 58.52 |
| 3.37 | 17.029 | 0.877 | 0.64 | 1.1 | 0.0 | 19.417 | 5.15 | 0.0 | 16.029 | 5.361 | 57.7 |
| 3.38 | 16.213 | 0.826 | 0.63 | 1.1 | 0.0 | 19.628 | 5.095 | 0.0 | 15.213 | 5.315 | 58.7 |
| 3.39 | 16.417 | 0.836 | 0.64 | 1.1 | 0.0 | 19.638 | 5.092 | 0.0 | 15.417 | 5.31 | 58.38 |
| 3.40 | 16.621 | 0.795 | 0.64 | 1.2 | 0.0 | 20.907 | 4.783 | 0.0 | 15.621 | 4.986 | 56.91 |
| 3.41 | 16.825 | 0.765 | 0.64 | 1.2 | 0.0 | 21.993 | 4.547 | 0.0 | 15.825 | 4.737 | 55.69 |
| 3.42 | 15.907 | 0.724 | 0.64 | 1.2 | 0.0 | 21.971 | 4.551 | 0.0 | 14.907 | 4.754 | 57.07 |
| 3.43 | 15.703 | 0.724 | 0.64 | 1.2 | 0.0 | 21.689 | 4.611 | 0.0 | 14.703 | 4.819 | 57.63 |

Prova n. 8

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 3.44 | 16.621 | 0.683 | 0.64 | 1.2 | 0.0 | 24.335 | 4.109 | 0.0 | 15.621 | 4.285 | 54.18 |
| 3.45 | 16.009 | 0.642 | 0.63 | 1.2 | 0.0 | 24.936 | 4.01 | 0.0 | 15.009 | 4.189 | 54.65 |
| 3.46 | 15.194 | 0.693 | 0.63 | 1.2 | 0.0 | 21.925 | 4.561 | 0.0 | 14.194 | 4.777 | 58.25 |
| 3.47 | 15.194 | 0.683 | 0.63 | 1.2 | 0.0 | 22.246 | 4.495 | 0.0 | 14.194 | 4.709 | 57.99 |
| 3.48 | 14.48 | 0.704 | 0.63 | 1.2 | 0.0 | 20.568 | 4.862 | 0.0 | 13.48 | 5.105 | 60.68 |
| 3.49 | 14.378 | 0.704 | 0.63 | 1.2 | 0.0 | 20.423 | 4.896 | 0.0 | 13.378 | 5.144 | 61 |
| 3.50 | 14.378 | 0.714 | 0.63 | 1.2 | 0.0 | 20.137 | 4.966 | 0.0 | 13.378 | 5.218 | 61.27 |
| 3.51 | 14.48 | 0.734 | 0.63 | 1.2 | 0.0 | 19.728 | 5.069 | 0.0 | 13.48 | 5.325 | 61.49 |
| 3.52 | 14.378 | 0.744 | 0.64 | 1.2 | 0.0 | 19.325 | 5.175 | 0.0 | 13.378 | 5.439 | 62.08 |
| 3.53 | 14.174 | 0.744 | 0.64 | 1.2 | 0.0 | 19.051 | 5.249 | 0.0 | 13.174 | 5.522 | 62.73 |
| 3.54 | 14.48 | 0.734 | 0.64 | 1.2 | 0.0 | 19.728 | 5.069 | 0.0 | 13.48 | 5.327 | 61.5 |
| 3.55 | 15.092 | 0.724 | 0.64 | 1.2 | 0.0 | 20.845 | 4.797 | 0.0 | 14.092 | 5.032 | 59.39 |
| 3.56 | 16.009 | 0.755 | 0.64 | 1.2 | 0.0 | 21.204 | 4.716 | 0.0 | 15.009 | 4.934 | 57.6 |
| 3.57 | 16.621 | 0.775 | 0.64 | 1.2 | 0.0 | 21.446 | 4.663 | 0.0 | 15.621 | 4.87 | 56.48 |
| 3.58 | 17.539 | 0.806 | 0.64 | 1.2 | 0.0 | 21.761 | 4.595 | 0.0 | 16.539 | 4.789 | 54.93 |
| 3.59 | 18.559 | 0.806 | 0.65 | 1.2 | 0.0 | 23.026 | 4.343 | 0.0 | 17.559 | 4.516 | 52.62 |
| 3.60 | 19.68 | 0.806 | 0.65 | 1.2 | 0.0 | 24.417 | 4.096 | 0.0 | 18.68 | 4.25 | 50.29 |
| 3.61 | 21.108 | 0.826 | 0.65 | 1.2 | 0.0 | 25.554 | 3.913 | 0.0 | 20.108 | 4.05 | 48.01 |
| 3.62 | 22.637 | 0.846 | 0.65 | 1.2 | 0.0 | 26.758 | 3.737 | 0.0 | 21.637 | 3.86 | 45.8 |
| 3.63 | 24.575 | 0.877 | 0.66 | 1.2 | 0.0 | 28.022 | 3.569 | 0.0 | 23.575 | 3.676 | 43.42 |
| 3.64 | 29.061 | 0.938 | 0.66 | 1.2 | 0.0 | 30.982 | 3.228 | 0.0 | 28.061 | 3.31 | 38.74 |
| 3.65 | 29.163 | 1.01 | 0.66 | 1.2 | 0.0 | 28.874 | 3.463 | 0.0 | 28.163 | 3.551 | 39.73 |
| 3.66 | 28.654 | 1.06 | 0.66 | 1.1 | 0.0 | 27.032 | 3.699 | 0.0 | 27.654 | 3.795 | 41.06 |
| 3.67 | 29.163 | 1.193 | 0.66 | 1.1 | 0.0 | 24.445 | 4.091 | 0.0 | 28.163 | 4.195 | 42.31 |
| 3.68 | 28.756 | 1.224 | 0.66 | 1.1 | 0.0 | 23.493 | 4.257 | 0.0 | 27.756 | 4.367 | 43.22 |
| 3.69 | 27.94 | 1.264 | 0.66 | 1.1 | 0.0 | 22.104 | 4.524 | 0.0 | 26.94 | 4.646 | 44.77 |
| 3.70 | 27.838 | 1.315 | 0.66 | 1.1 | 0.0 | 21.17 | 4.724 | 0.0 | 26.838 | 4.852 | 45.57 |
| 3.71 | 27.124 | 1.387 | 0.66 | 1.1 | 0.0 | 19.556 | 5.114 | 0.0 | 26.124 | 5.256 | 47.45 |
| 3.72 | 27.226 | 1.397 | 0.66 | 1.1 | 0.0 | 19.489 | 5.131 | 0.0 | 26.226 | 5.274 | 47.44 |
| 3.73 | 26.104 | 1.438 | 0.66 | 1.1 | 0.0 | 18.153 | 5.509 | 0.0 | 25.104 | 5.669 | 49.55 |
| 3.74 | 26.002 | 1.499 | 0.66 | 1.1 | 0.0 | 17.346 | 5.765 | 0.0 | 25.002 | 5.934 | 50.46 |
| 3.75 | 26.002 | 1.519 | 0.66 | 1.1 | 0.0 | 17.118 | 5.842 | 0.0 | 25.002 | 6.014 | 50.71 |
| 3.76 | 24.779 | 1.53 | 0.66 | 1.1 | 0.0 | 16.195 | 6.175 | 0.0 | 23.779 | 6.366 | 52.75 |
| 3.77 | 22.739 | 1.601 | 0.66 | 1.1 | 0.0 | 14.203 | 7.041 | 0.0 | 21.739 | 7.28 | 57.19 |
| 3.78 | 22.331 | 1.611 | 0.66 | 1.1 | 0.0 | 13.862 | 7.214 | 0.0 | 21.331 | 7.465 | 58.09 |
| 3.79 | 22.229 | 1.591 | 0.66 | 1.1 | 0.0 | 13.972 | 7.157 | 0.0 | 21.229 | 7.408 | 58.03 |
| 3.80 | 22.229 | 1.581 | 0.67 | 1.1 | 0.0 | 14.06 | 7.112 | 0.0 | 21.229 | 7.362 | 57.9 |
| 3.81 | 22.127 | 1.55 | 0.67 | 1.1 | 0.0 | 14.275 | 7.005 | 0.0 | 21.127 | 7.253 | 57.7 |
| 3.82 | 22.331 | 1.54 | 0.67 | 1.1 | 0.0 | 14.501 | 6.896 | 0.0 | 21.331 | 7.138 | 57.18 |
| 3.83 | 21.924 | 1.54 | 0.67 | 1.1 | 0.0 | 14.236 | 7.024 | 0.0 | 20.924 | 7.276 | 57.97 |
| 3.84 | 20.088 | 1.499 | 0.67 | 1.1 | 0.0 | 13.401 | 7.462 | 0.0 | 19.088 | 7.756 | 61.24 |
| 3.85 | 20.292 | 1.448 | 0.67 | 1.1 | 0.0 | 14.014 | 7.136 | 0.0 | 19.292 | 7.415 | 60.08 |
| 3.86 | 20.496 | 1.397 | 0.68 | 1.1 | 0.0 | 14.671 | 6.816 | 0.0 | 19.496 | 7.08 | 58.91 |
| 3.87 | 20.496 | 1.397 | 0.68 | 1.1 | 0.0 | 14.671 | 6.816 | 0.0 | 19.496 | 7.081 | 58.91 |
| 3.88 | 20.496 | 1.397 | 0.68 | 1.1 | 0.0 | 14.671 | 6.816 | 0.0 | 19.496 | 7.082 | 58.91 |
| 3.89 | 22.026 | 1.254 | 0.84 | 1.1 | 0.0 | 17.565 | 5.693 | 0.0 | 21.026 | 5.9 | 53.77 |
| 3.90 | 22.026 | 1.203 | 0.86 | 1.1 | 0.0 | 18.309 | 5.462 | 0.0 | 21.026 | 5.66 | 53 |
| 3.91 | 22.331 | 1.152 | 0.87 | 1.1 | 0.0 | 19.385 | 5.159 | 0.0 | 21.331 | 5.344 | 51.65 |
| 3.92 | 22.739 | 1.111 | 0.87 | 1.1 | 0.0 | 20.467 | 4.886 | 0.0 | 21.739 | 5.059 | 50.29 |
| 3.93 | 23.045 | 1.091 | 0.87 | 1.1 | 0.0 | 21.123 | 4.734 | 0.0 | 22.045 | 4.9 | 49.45 |
| 3.94 | 23.759 | 1.071 | 0.87 | 1.1 | 0.0 | 22.184 | 4.508 | 0.0 | 22.759 | 4.661 | 47.97 |
| 3.95 | 24.065 | 1.081 | 0.87 | 1.1 | 0.0 | 22.262 | 4.492 | 0.0 | 23.065 | 4.643 | 47.65 |
| 3.96 | 24.575 | 1.081 | 0.88 | 1.1 | 0.0 | 22.734 | 4.399 | 0.0 | 23.575 | 4.544 | 46.87 |
| 3.97 | 25.289 | 1.091 | 0.88 | 1.1 | 0.0 | 23.18 | 4.314 | 0.0 | 24.289 | 4.453 | 45.97 |
| 3.98 | 26.104 | 1.111 | 0.89 | 1.1 | 0.0 | 23.496 | 4.256 | 0.0 | 25.104 | 4.389 | 45.11 |
| 3.99 | 26.512 | 1.152 | 0.89 | 1.1 | 0.0 | 23.014 | 4.345 | 0.0 | 25.512 | 4.479 | 45.15 |
| 4.00 | 27.226 | 1.183 | 0.89 | 1.1 | 0.0 | 23.014 | 4.345 | 0.0 | 26.226 | 4.476 | 44.64 |
| 4.01 | 27.43 | 1.213 | 0.89 | 1.1 | 0.0 | 22.613 | 4.422 | 0.0 | 26.43 | 4.554 | 44.79 |
| 4.02 | 27.226 | 1.254 | 0.89 | 1.1 | 0.0 | 21.711 | 4.606 | 0.0 | 26.226 | 4.745 | 45.62 |
| 4.03 | 27.634 | 1.264 | 0.89 | 1.1 | 0.0 | 21.862 | 4.574 | 0.0 | 26.634 | 4.71 | 45.21 |
| 4.04 | 27.838 | 1.264 | 0.89 | 1.1 | 0.0 | 22.024 | 4.541 | 0.0 | 26.838 | 4.675 | 44.95 |
| 4.05 | 28.042 | 1.295 | 0.89 | 1.1 | 0.0 | 21.654 | 4.618 | 0.0 | 27.042 | 4.754 | 45.09 |
| 4.06 | 28.246 | 1.315 | 0.89 | 1.1 | 0.0 | 21.48 | 4.656 | 0.0 | 27.246 | 4.792 | 45.09 |
| 4.07 | 28.45 | 1.346 | 0.89 | 1.1 | 0.0 | 21.137 | 4.731 | 0.0 | 27.45 | 4.869 | 45.23 |
| 4.08 | 28.552 | 1.366 | 0.89 | 1.1 | 0.0 | 20.902 | 4.784 | 0.0 | 27.552 | 4.924 | 45.35 |
| 4.09 | 28.45 | 1.377 | 0.89 | 1.0 | 0.0 | 20.661 | 4.84 | 0.0 | 27.45 | 4.982 | 45.62 |

Prova n. 8

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|--------|-------|-----|--------|-------|-------|
| 4.10 | 28.45 | 1.397 | 0.89 | 1.0 | 0.0 | 20.365 | 4.91 | 0.0 | 27.45 | 5.055 | 45.87 |
| 4.11 | 28.45 | 1.397 | 0.89 | 1.0 | 0.0 | 20.365 | 4.91 | 0.0 | 27.45 | 5.055 | 45.87 |
| 4.12 | 28.45 | 1.387 | 0.89 | 1.0 | 0.0 | 20.512 | 4.875 | 0.0 | 27.45 | 5.019 | 45.74 |
| 4.13 | 28.144 | 1.387 | 0.89 | 1.0 | 0.0 | 20.291 | 4.928 | 0.0 | 27.144 | 5.076 | 46.14 |
| 4.14 | 27.94 | 1.377 | 0.89 | 1.0 | 0.0 | 20.29 | 4.928 | 0.0 | 26.94 | 5.078 | 46.28 |
| 4.15 | 27.838 | 1.366 | 0.89 | 1.0 | 0.0 | 20.379 | 4.907 | 0.0 | 26.838 | 5.057 | 46.28 |
| 4.16 | 27.838 | 1.356 | 0.89 | 1.0 | 0.0 | 20.529 | 4.871 | 0.0 | 26.838 | 5.02 | 46.16 |
| 4.17 | 27.94 | 1.346 | 0.89 | 1.0 | 0.0 | 20.758 | 4.817 | 0.0 | 26.94 | 4.965 | 45.9 |
| 4.18 | 28.042 | 1.336 | 0.89 | 1.0 | 0.0 | 20.99 | 4.764 | 0.0 | 27.042 | 4.91 | 45.64 |
| 4.19 | 27.94 | 1.326 | 0.89 | 1.0 | 0.0 | 21.071 | 4.746 | 0.0 | 26.94 | 4.892 | 45.64 |
| 4.20 | 27.94 | 1.305 | 0.89 | 1.0 | 0.0 | 21.41 | 4.671 | 0.0 | 26.94 | 4.814 | 45.37 |
| 4.21 | 27.736 | 1.264 | 0.89 | 1.0 | 0.0 | 21.943 | 4.557 | 0.0 | 26.736 | 4.699 | 45.1 |
| 4.22 | 27.226 | 1.254 | 0.89 | 1.0 | 0.0 | 21.711 | 4.606 | 0.0 | 26.226 | 4.752 | 45.64 |
| 4.23 | 27.022 | 1.234 | 0.89 | 1.0 | 0.0 | 21.898 | 4.567 | 0.0 | 26.022 | 4.713 | 45.65 |
| 4.24 | 26.716 | 1.213 | 0.89 | 1.0 | 0.0 | 22.025 | 4.54 | 0.0 | 25.716 | 4.688 | 45.77 |
| 4.25 | 26.206 | 1.203 | 0.89 | 1.0 | 0.0 | 21.784 | 4.591 | 0.0 | 25.206 | 4.743 | 46.34 |
| 4.26 | 25.492 | 1.183 | 0.89 | 1.0 | 0.0 | 21.549 | 4.641 | 0.0 | 24.492 | 4.8 | 47.08 |
| 4.27 | 25.289 | 1.173 | 0.89 | 1.0 | 0.0 | 21.559 | 4.638 | 0.0 | 24.289 | 4.799 | 47.24 |
| 4.28 | 25.492 | 1.142 | 0.89 | 1.0 | 0.0 | 22.322 | 4.48 | 0.0 | 24.492 | 4.634 | 46.48 |
| 4.29 | 25.9 | 1.132 | 0.89 | 1.0 | 0.0 | 22.88 | 4.371 | 0.0 | 24.9 | 4.519 | 45.75 |
| 4.30 | 26.206 | 1.111 | 0.90 | 1.0 | 0.0 | 23.588 | 4.239 | 0.0 | 25.206 | 4.382 | 45.01 |
| 4.31 | 25.9 | 1.111 | 0.93 | 1.0 | 0.0 | 23.312 | 4.29 | 0.0 | 24.9 | 4.436 | 45.44 |
| 4.32 | 25.594 | 1.122 | 0.94 | 1.0 | 0.0 | 22.811 | 4.384 | 0.0 | 24.594 | 4.536 | 46.04 |
| 4.33 | 26.002 | 1.04 | 0.94 | 1.0 | 0.0 | 25.002 | 4.0 | 0.0 | 25.002 | 4.137 | 44.22 |
| 4.34 | 26.512 | 0.999 | 0.94 | 1.0 | 0.0 | 26.539 | 3.768 | 0.0 | 25.512 | 3.895 | 42.89 |
| 4.35 | 27.43 | 0.959 | 0.94 | 1.0 | 0.0 | 28.603 | 3.496 | 0.0 | 26.43 | 3.61 | 41.08 |
| 4.36 | 27.124 | 0.979 | 0.93 | 1.0 | 0.0 | 27.706 | 3.609 | 0.0 | 26.124 | 3.728 | 41.78 |
| 4.37 | 26.818 | 0.999 | 0.93 | 1.1 | 0.0 | 26.845 | 3.725 | 0.0 | 25.818 | 3.85 | 42.49 |
| 4.38 | 26.818 | 1.01 | 0.93 | 1.1 | 0.0 | 26.552 | 3.766 | 0.0 | 25.818 | 3.892 | 42.67 |
| 4.39 | 26.716 | 1.02 | 0.93 | 1.1 | 0.0 | 26.192 | 3.818 | 0.0 | 25.716 | 3.947 | 42.96 |
| 4.40 | 26.614 | 1.03 | 0.93 | 1.1 | 0.0 | 25.839 | 3.87 | 0.0 | 25.614 | 4.002 | 43.25 |
| 4.41 | 26.308 | 1.05 | 0.93 | 1.1 | 0.0 | 25.055 | 3.991 | 0.0 | 25.308 | 4.129 | 43.97 |
| 4.42 | 26.002 | 1.06 | 0.93 | 1.1 | 0.0 | 24.53 | 4.077 | 0.0 | 25.002 | 4.219 | 44.54 |
| 4.43 | 25.9 | 1.06 | 0.93 | 1.1 | 0.0 | 24.434 | 4.093 | 0.0 | 24.9 | 4.237 | 44.68 |
| 4.44 | 25.696 | 1.06 | 0.93 | 1.1 | 0.0 | 24.242 | 4.125 | 0.0 | 24.696 | 4.272 | 44.97 |
| 4.45 | 25.696 | 1.06 | 0.93 | 1.1 | 0.0 | 24.242 | 4.125 | 0.0 | 24.696 | 4.272 | 44.97 |
| 4.46 | 25.696 | 1.111 | 0.93 | 1.1 | 0.0 | 23.129 | 4.324 | 0.0 | 24.696 | 4.478 | 45.75 |
| 4.47 | 25.798 | 1.142 | 0.93 | 1.1 | 0.0 | 22.59 | 4.427 | 0.0 | 24.798 | 4.585 | 46.07 |
| 4.48 | 25.594 | 1.152 | 0.93 | 1.1 | 0.0 | 22.217 | 4.501 | 0.0 | 24.594 | 4.663 | 46.51 |
| 4.49 | 25.289 | 1.173 | 0.93 | 1.1 | 0.0 | 21.559 | 4.638 | 0.0 | 24.289 | 4.808 | 47.27 |
| 4.50 | 25.289 | 1.162 | 0.93 | 1.1 | 0.0 | 21.763 | 4.595 | 0.0 | 24.289 | 4.763 | 47.11 |
| 4.51 | 25.187 | 1.142 | 0.93 | 1.1 | 0.0 | 22.055 | 4.534 | 0.0 | 24.187 | 4.701 | 46.96 |
| 4.52 | 25.085 | 1.142 | 0.93 | 1.1 | 0.0 | 21.966 | 4.553 | 0.0 | 24.085 | 4.722 | 47.11 |
| 4.53 | 24.881 | 1.142 | 0.93 | 1.1 | 0.0 | 21.787 | 4.59 | 0.0 | 23.881 | 4.762 | 47.42 |
| 4.54 | 24.473 | 1.152 | 0.93 | 1.1 | 0.0 | 21.244 | 4.707 | 0.0 | 23.473 | 4.887 | 48.2 |
| 4.55 | 23.861 | 1.173 | 0.93 | 1.1 | 0.0 | 20.342 | 4.916 | 0.0 | 22.861 | 5.11 | 49.49 |
| 4.56 | 23.453 | 1.183 | 0.93 | 1.0 | 0.0 | 19.825 | 5.044 | 0.0 | 22.453 | 5.247 | 50.31 |
| 4.57 | 22.841 | 1.183 | 0.93 | 1.1 | 0.0 | 19.308 | 5.179 | 0.0 | 21.841 | 5.394 | 51.35 |
| 4.58 | 22.229 | 1.173 | 0.93 | 1.1 | 0.0 | 18.951 | 5.277 | 0.0 | 21.229 | 5.502 | 52.28 |
| 4.59 | 22.127 | 1.162 | 0.93 | 1.0 | 0.0 | 19.042 | 5.252 | 0.0 | 21.127 | 5.477 | 52.3 |
| 4.60 | 22.127 | 1.132 | 0.93 | 1.0 | 0.0 | 19.547 | 5.116 | 0.0 | 21.127 | 5.336 | 51.82 |
| 4.61 | 21.924 | 1.122 | 0.93 | 1.1 | 0.0 | 19.54 | 5.118 | 0.0 | 20.924 | 5.341 | 52.03 |
| 4.62 | 21.21 | 1.091 | 0.93 | 1.1 | 0.0 | 19.441 | 5.144 | 0.0 | 20.21 | 5.377 | 52.85 |
| 4.63 | 21.006 | 1.05 | 0.93 | 1.1 | 0.0 | 20.006 | 4.999 | 0.0 | 20.006 | 5.228 | 52.55 |
| 4.64 | 20.802 | 1.02 | 0.94 | 1.1 | 0.0 | 20.394 | 4.903 | 0.0 | 19.802 | 5.131 | 52.42 |
| 4.65 | 20.904 | 0.989 | 0.94 | 1.1 | 0.0 | 21.137 | 4.731 | 0.0 | 19.904 | 4.95 | 51.67 |
| 4.66 | 20.904 | 0.959 | 0.94 | 1.1 | 0.0 | 21.798 | 4.588 | 0.0 | 19.904 | 4.8 | 51.12 |
| 4.67 | 20.7 | 0.928 | 0.94 | 1.1 | 0.0 | 22.306 | 4.483 | 0.0 | 19.7 | 4.693 | 50.93 |
| 4.68 | 19.782 | 0.897 | 0.94 | 1.1 | 0.0 | 22.054 | 4.534 | 0.0 | 18.782 | 4.758 | 52.15 |
| 4.69 | 19.476 | 0.857 | 0.94 | 1.1 | 0.0 | 22.726 | 4.4 | 0.0 | 18.476 | 4.621 | 51.97 |
| 4.70 | 19.476 | 0.816 | 0.94 | 1.1 | 0.0 | 23.868 | 4.19 | 0.0 | 18.476 | 4.401 | 51.11 |
| 4.71 | 19.578 | 0.785 | 0.94 | 1.1 | 0.0 | 24.94 | 4.01 | 0.0 | 18.578 | 4.211 | 50.24 |
| 4.72 | 19.578 | 0.755 | 0.94 | 1.1 | 0.0 | 25.931 | 3.856 | 0.0 | 18.578 | 4.05 | 49.59 |
| 4.73 | 19.578 | 0.734 | 0.95 | 1.1 | 0.0 | 26.673 | 3.749 | 0.0 | 18.578 | 3.938 | 49.12 |
| 4.74 | 19.476 | 0.704 | 0.95 | 1.1 | 0.0 | 27.665 | 3.615 | 0.0 | 18.476 | 3.798 | 48.63 |
| 4.75 | 19.272 | 0.683 | 0.96 | 1.1 | 0.0 | 28.217 | 3.544 | 0.0 | 18.272 | 3.726 | 48.54 |

Prova n. 8

| | | | | | | | | | | | |
|------|--------|-------|------|-----|-----|---------|-------|-----|--------|-------|-------|
| 4.76 | 19.17 | 0.663 | 0.96 | 1.1 | 0.0 | 28.914 | 3.459 | 0.0 | 18.17 | 3.638 | 48.26 |
| 4.77 | 18.966 | 0.653 | 0.96 | 1.1 | 0.0 | 29.044 | 3.443 | 0.0 | 17.966 | 3.624 | 48.43 |
| 4.78 | 18.762 | 0.632 | 0.96 | 1.1 | 0.0 | 29.687 | 3.369 | 0.0 | 17.762 | 3.548 | 48.32 |
| 4.79 | 18.457 | 0.622 | 0.96 | 1.1 | 0.0 | 29.674 | 3.37 | 0.0 | 17.457 | 3.553 | 48.69 |
| 4.80 | 17.743 | 0.602 | 1.02 | 1.1 | 0.0 | 29.473 | 3.393 | 0.0 | 16.743 | 3.586 | 49.69 |
| 4.81 | 17.233 | 0.591 | 1.02 | 1.1 | 0.0 | 29.159 | 3.429 | 0.0 | 16.233 | 3.631 | 50.54 |
| 4.82 | 16.723 | 0.561 | 1.02 | 1.1 | 0.0 | 29.809 | 3.355 | 0.0 | 15.723 | 3.558 | 50.88 |
| 4.83 | 16.417 | 0.561 | 1.02 | 1.1 | 0.0 | 29.264 | 3.417 | 0.0 | 15.417 | 3.629 | 51.62 |
| 4.84 | 16.315 | 0.551 | 1.03 | 1.1 | 0.0 | 29.61 | 3.377 | 0.0 | 15.315 | 3.589 | 51.58 |
| 4.85 | 16.315 | 0.54 | 1.03 | 1.1 | 0.0 | 30.213 | 3.31 | 0.0 | 15.315 | 3.517 | 51.25 |
| 4.86 | 16.315 | 0.54 | 1.03 | 1.1 | 0.0 | 30.213 | 3.31 | 0.0 | 15.315 | 3.518 | 51.25 |
| 4.87 | 16.315 | 0.54 | 1.03 | 1.1 | 0.0 | 30.213 | 3.31 | 0.0 | 15.315 | 3.518 | 51.25 |
| 4.88 | 16.621 | 0.438 | 2.12 | 1.1 | 0.0 | 37.947 | 2.635 | 0.0 | 15.621 | 2.798 | 47.24 |
| 4.89 | 16.417 | 0.449 | 2.17 | 1.1 | 0.0 | 36.563 | 2.735 | 0.0 | 15.417 | 2.907 | 48.09 |
| 4.90 | 16.009 | 0.459 | 2.23 | 1.1 | 0.0 | 34.878 | 2.867 | 0.0 | 15.009 | 3.053 | 49.4 |
| 4.91 | 15.601 | 0.459 | 2.24 | 1.1 | 0.0 | 33.989 | 2.942 | 0.0 | 14.601 | 3.138 | 50.42 |
| 4.92 | 15.397 | 0.449 | 2.27 | 1.1 | 0.0 | 34.292 | 2.916 | 0.0 | 14.397 | 3.114 | 50.6 |
| 4.93 | 15.295 | 0.418 | 2.38 | 1.1 | 0.0 | 36.591 | 2.733 | 0.0 | 14.295 | 2.92 | 49.74 |
| 4.94 | 15.194 | 0.418 | 2.45 | 1.1 | 0.0 | 36.349 | 2.751 | 0.0 | 14.194 | 2.941 | 50 |
| 4.95 | 15.092 | 0.408 | 2.49 | 1.1 | 0.0 | 36.99 | 2.703 | 0.0 | 14.092 | 2.892 | 49.9 |
| 4.96 | 14.99 | 0.387 | 2.56 | 1.1 | 0.0 | 38.734 | 2.582 | 0.0 | 13.99 | 2.763 | 49.35 |
| 4.97 | 14.786 | 0.367 | 2.68 | 1.1 | 0.0 | 40.289 | 2.482 | 0.0 | 13.786 | 2.659 | 49.09 |
| 4.98 | 14.48 | 0.316 | 3.05 | 1.1 | 0.0 | 45.823 | 2.182 | 0.0 | 13.48 | 2.342 | 47.69 |
| 4.99 | 14.48 | 0.296 | 3.23 | 1.1 | 0.0 | 48.919 | 2.044 | 0.0 | 13.48 | 2.194 | 46.76 |
| 5.00 | 14.582 | 0.286 | 3.38 | 1.1 | 0.0 | 50.986 | 1.961 | 0.0 | 13.582 | 2.104 | 46.02 |
| 5.01 | 14.582 | 0.275 | 3.50 | 1.1 | 0.0 | 53.025 | 1.886 | 0.0 | 13.582 | 2.024 | 45.49 |
| 5.02 | 14.48 | 0.255 | 3.64 | 1.1 | 0.0 | 56.784 | 1.761 | 0.0 | 13.48 | 1.891 | 44.74 |
| 5.03 | 14.276 | 0.235 | 4.15 | 1.1 | 0.0 | 60.749 | 1.646 | 0.0 | 13.276 | 1.77 | 44.18 |
| 5.04 | 14.276 | 0.184 | 4.55 | 1.1 | 0.0 | 77.587 | 1.289 | 0.0 | 13.276 | 1.386 | 41.17 |
| 5.05 | 14.276 | 0.184 | 4.55 | 1.1 | 0.0 | 77.587 | 1.289 | 0.0 | 13.276 | 1.386 | 41.17 |
| 5.06 | 14.378 | 0.153 | 4.56 | 1.1 | 0.0 | 93.974 | 1.064 | 0.0 | 13.378 | 1.144 | 38.86 |
| 5.07 | 14.378 | 0.143 | 4.56 | 1.1 | 0.0 | 100.545 | 0.995 | 0.0 | 13.378 | 1.069 | 38.14 |
| 5.08 | 14.276 | 0.133 | 4.55 | 1.1 | 0.0 | 107.338 | 0.932 | 0.0 | 13.276 | 1.002 | 37.63 |
| 5.09 | 14.276 | 0.122 | 4.54 | 1.1 | 0.0 | 117.016 | 0.855 | 0.0 | 13.276 | 0.92 | 36.77 |
| 5.10 | 14.684 | 0.133 | 4.55 | 1.1 | 0.0 | 110.406 | 0.906 | 0.0 | 13.684 | 0.973 | 36.74 |
| 5.11 | 15.194 | 0.133 | 4.57 | 1.1 | 0.0 | 114.241 | 0.875 | 0.0 | 14.194 | 0.938 | 35.68 |
| 5.12 | 15.295 | 0.153 | 4.58 | 1.1 | 0.0 | 99.967 | 1.0 | 0.0 | 14.295 | 1.071 | 36.88 |
| 5.13 | 15.499 | 0.153 | 4.58 | 1.1 | 0.0 | 101.301 | 0.987 | 0.0 | 14.499 | 1.056 | 36.46 |
| 5.14 | 15.499 | 0.153 | 4.58 | 1.1 | 0.0 | 101.301 | 0.987 | 0.0 | 14.499 | 1.057 | 36.46 |
| 5.15 | 15.703 | 0.153 | 4.57 | 1.1 | 0.0 | 102.634 | 0.974 | 0.0 | 14.703 | 1.042 | 36.06 |
| 5.16 | 15.805 | 0.143 | 4.54 | 1.1 | 0.0 | 110.524 | 0.905 | 0.0 | 14.805 | 0.967 | 35.18 |
| 5.17 | 15.703 | 0.163 | 4.51 | 1.1 | 0.0 | 96.337 | 1.038 | 0.0 | 14.703 | 1.11 | 36.71 |
| 5.18 | 15.601 | 0.194 | 4.50 | 1.1 | 0.0 | 80.418 | 1.244 | 0.0 | 14.601 | 1.331 | 38.82 |
| 5.19 | 15.499 | 0.214 | 4.42 | 1.1 | 0.0 | 72.425 | 1.381 | 0.0 | 14.499 | 1.479 | 40.18 |
| 5.20 | 15.397 | 0.235 | 4.33 | 1.1 | 0.0 | 65.519 | 1.526 | 0.0 | 14.397 | 1.636 | 41.54 |
| 5.21 | 15.092 | 0.255 | 4.28 | 1.1 | 0.0 | 59.184 | 1.69 | 0.0 | 14.092 | 1.814 | 43.28 |
| 5.22 | 14.786 | 0.275 | 4.23 | 1.1 | 0.0 | 53.767 | 1.86 | 0.0 | 13.786 | 2.0 | 45.02 |
| 5.23 | 14.276 | 0.296 | 4.16 | 1.1 | 0.0 | 48.23 | 2.073 | 0.0 | 13.276 | 2.236 | 47.35 |
| 5.24 | 14.378 | 0.296 | 4.16 | 1.1 | 0.0 | 48.574 | 2.059 | 0.0 | 13.378 | 2.219 | 47.08 |
| 5.25 | 14.276 | 0.296 | 4.15 | 1.1 | 0.0 | 48.23 | 2.073 | 0.0 | 13.276 | 2.236 | 47.36 |
| 5.26 | 14.174 | 0.306 | 4.16 | 1.1 | 0.0 | 46.32 | 2.159 | 0.0 | 13.174 | 2.33 | 48.11 |
| 5.27 | 14.072 | 0.316 | 4.17 | 1.1 | 0.0 | 44.532 | 2.246 | 0.0 | 13.072 | 2.425 | 48.86 |
| 5.28 | 13.97 | 0.326 | 4.16 | 1.1 | 0.0 | 42.853 | 2.334 | 0.0 | 12.97 | 2.522 | 49.61 |
| 5.29 | 14.276 | 0.326 | 4.17 | 1.1 | 0.0 | 43.791 | 2.284 | 0.0 | 13.276 | 2.464 | 48.76 |
| 5.30 | 14.276 | 0.326 | 4.19 | 1.1 | 0.0 | 43.791 | 2.284 | 0.0 | 13.276 | 2.465 | 48.76 |
| 5.31 | 15.092 | 0.326 | 4.22 | 1.1 | 0.0 | 46.294 | 2.16 | 0.0 | 14.092 | 2.322 | 46.63 |
| 5.32 | 16.519 | 0.326 | 4.28 | 1.1 | 0.0 | 50.672 | 1.973 | 0.0 | 15.519 | 2.108 | 43.32 |
| 5.33 | 17.335 | 0.326 | 4.30 | 1.1 | 0.0 | 53.175 | 1.881 | 0.0 | 16.335 | 2.002 | 41.63 |
| 5.34 | 17.335 | 0.306 | 4.14 | 1.1 | 0.0 | 56.65 | 1.765 | 0.0 | 16.335 | 1.88 | 40.81 |
| 5.35 | 22.637 | 0.296 | 3.92 | 1.1 | 0.0 | 76.476 | 1.308 | 0.0 | 21.637 | 1.372 | 32.03 |
| 5.36 | 24.983 | 0.286 | 3.89 | 1.1 | 0.0 | 87.353 | 1.145 | 0.0 | 23.983 | 1.196 | 28.93 |
| 5.37 | 26.308 | 0.286 | 3.84 | 1.1 | 0.0 | 91.986 | 1.087 | 0.0 | 25.308 | 1.133 | 27.57 |
| 5.38 | 25.391 | 0.286 | 3.77 | 1.1 | 0.0 | 88.78 | 1.126 | 0.0 | 24.391 | 1.176 | 28.5 |
| 5.39 | 24.677 | 0.245 | 3.61 | 1.1 | 0.0 | 100.722 | 0.993 | 0.0 | 23.677 | 1.038 | 27.78 |
| 5.40 | 22.433 | 0.235 | 3.50 | 1.1 | 0.0 | 95.46 | 1.048 | 0.0 | 21.433 | 1.1 | 29.94 |
| 5.41 | 19.986 | 0.255 | 3.61 | 1.1 | 0.0 | 78.376 | 1.276 | 0.0 | 18.986 | 1.348 | 34.1 |

Prova n. 8

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|-------|
| 5.42 | 18.559 | 0.316 | 4.51 | 1.1 | 0.0 | 58.731 | 1.703 | 0.0 | 17.559 | 1.807 | 38.93 |
| 5.43 | 18.457 | 0.306 | 4.90 | 1.1 | 0.0 | 60.317 | 1.658 | 0.0 | 17.457 | 1.76 | 38.72 |
| 5.44 | 19.374 | 0.296 | 4.35 | 1.1 | 0.0 | 65.453 | 1.528 | 0.0 | 18.374 | 1.618 | 36.75 |
| 5.45 | 18.559 | 0.275 | 3.97 | 1.1 | 0.0 | 67.487 | 1.482 | 0.0 | 17.559 | 1.573 | 37.25 |
| 5.46 | 18.253 | 0.286 | 4.48 | 1.1 | 0.0 | 63.822 | 1.567 | 0.0 | 17.253 | 1.665 | 38.26 |
| 5.47 | 18.457 | 0.275 | 4.93 | 1.1 | 0.0 | 67.116 | 1.49 | 0.0 | 17.457 | 1.583 | 37.43 |
| 5.48 | 19.476 | 0.275 | 5.39 | 1.0 | 0.0 | 70.822 | 1.412 | 0.0 | 18.476 | 1.495 | 35.74 |
| 5.49 | 19.782 | 0.275 | 5.50 | 1.0 | 0.0 | 71.935 | 1.39 | 0.0 | 18.782 | 1.471 | 35.25 |
| 5.50 | 20.19 | 0.286 | 5.58 | 1.0 | 0.0 | 70.594 | 1.417 | 0.0 | 19.19 | 1.497 | 35.07 |
| 5.51 | 20.496 | 0.296 | 5.61 | 1.0 | 0.0 | 69.243 | 1.444 | 0.0 | 19.496 | 1.525 | 35 |
| 5.52 | 20.496 | 0.296 | 5.64 | 1.0 | 0.0 | 69.243 | 1.444 | 0.0 | 19.496 | 1.525 | 35 |
| 5.53 | 20.394 | 0.296 | 5.63 | 1.0 | 0.0 | 68.899 | 1.451 | 0.0 | 19.394 | 1.534 | 35.16 |
| 5.54 | 19.782 | 0.275 | 5.62 | 1.0 | 0.0 | 71.935 | 1.39 | 0.0 | 18.782 | 1.472 | 35.26 |
| 5.55 | 19.374 | 0.235 | 5.62 | 1.0 | 0.0 | 82.443 | 1.213 | 0.0 | 18.374 | 1.286 | 34.17 |
| 5.56 | 18.966 | 0.224 | 5.63 | 1.0 | 0.0 | 84.67 | 1.181 | 0.0 | 17.966 | 1.254 | 34.3 |
| 5.57 | 18.762 | 0.214 | 5.67 | 1.0 | 0.0 | 87.673 | 1.141 | 0.0 | 17.762 | 1.212 | 34.14 |
| 5.58 | 18.457 | 0.204 | 5.71 | 1.0 | 0.0 | 90.475 | 1.105 | 0.0 | 17.457 | 1.176 | 34.13 |
| 5.59 | 18.355 | 0.194 | 5.81 | 1.0 | 0.0 | 94.613 | 1.057 | 0.0 | 17.355 | 1.125 | 33.78 |
| 5.60 | 18.457 | 0.173 | 5.94 | 1.0 | 0.0 | 106.688 | 0.937 | 0.0 | 17.457 | 0.997 | 32.48 |
| 5.61 | 18.559 | 0.173 | 5.97 | 1.0 | 0.0 | 107.277 | 0.932 | 0.0 | 17.559 | 0.991 | 32.33 |
| 5.62 | 18.864 | 0.163 | 5.99 | 1.1 | 0.0 | 115.73 | 0.864 | 0.0 | 17.864 | 0.918 | 31.3 |
| 5.63 | 19.17 | 0.153 | 6.02 | 1.0 | 0.0 | 125.294 | 0.798 | 0.0 | 18.17 | 0.847 | 30.28 |
| 5.64 | 19.374 | 0.153 | 6.05 | 1.0 | 0.0 | 126.627 | 0.79 | 0.0 | 18.374 | 0.838 | 29.99 |
| 5.65 | 19.68 | 0.163 | 6.08 | 1.0 | 0.0 | 120.736 | 0.828 | 0.0 | 18.68 | 0.878 | 30.13 |
| 5.66 | 19.578 | 0.163 | 6.07 | 1.0 | 0.0 | 120.11 | 0.833 | 0.0 | 18.578 | 0.883 | 30.27 |
| 5.67 | 19.476 | 0.173 | 6.06 | 1.0 | 0.0 | 112.578 | 0.888 | 0.0 | 18.476 | 0.943 | 30.96 |
| 5.68 | 19.17 | 0.173 | 6.05 | 1.0 | 0.0 | 110.809 | 0.902 | 0.0 | 18.17 | 0.959 | 31.41 |
| 5.69 | 18.864 | 0.173 | 6.04 | 1.0 | 0.0 | 109.04 | 0.917 | 0.0 | 17.864 | 0.975 | 31.87 |
| 5.70 | 18.559 | 0.173 | 6.04 | 1.0 | 0.0 | 107.277 | 0.932 | 0.0 | 17.559 | 0.992 | 32.34 |
| 5.71 | 18.253 | 0.173 | 6.05 | 1.0 | 0.0 | 105.509 | 0.948 | 0.0 | 17.253 | 1.01 | 32.82 |
| 5.72 | 18.049 | 0.163 | 6.10 | 1.0 | 0.0 | 110.73 | 0.903 | 0.0 | 17.049 | 0.963 | 32.57 |
| 5.73 | 18.049 | 0.163 | 6.13 | 1.0 | 0.0 | 110.73 | 0.903 | 0.0 | 17.049 | 0.964 | 32.57 |
| 5.74 | 18.151 | 0.153 | 6.15 | 1.0 | 0.0 | 118.634 | 0.843 | 0.0 | 17.151 | 0.899 | 31.82 |
| 5.75 | 18.253 | 0.143 | 6.17 | 1.0 | 0.0 | 127.643 | 0.783 | 0.0 | 17.253 | 0.835 | 31.05 |
| 5.76 | 18.355 | 0.153 | 6.19 | 1.0 | 0.0 | 119.967 | 0.834 | 0.0 | 17.355 | 0.889 | 31.5 |
| 5.77 | 18.457 | 0.153 | 6.21 | 1.0 | 0.0 | 120.634 | 0.829 | 0.0 | 17.457 | 0.884 | 31.35 |
| 5.78 | 18.661 | 0.153 | 6.25 | 1.0 | 0.0 | 121.967 | 0.82 | 0.0 | 17.661 | 0.873 | 31.04 |
| 5.79 | 18.762 | 0.153 | 6.26 | 1.0 | 0.0 | 122.627 | 0.815 | 0.0 | 17.762 | 0.868 | 30.89 |
| 5.80 | 18.762 | 0.153 | 6.26 | 1.0 | 0.0 | 122.627 | 0.815 | 0.0 | 17.762 | 0.869 | 30.89 |
| 5.81 | 18.864 | 0.163 | 6.28 | 1.0 | 0.0 | 115.73 | 0.864 | 0.0 | 17.864 | 0.92 | 31.32 |
| 5.82 | 18.864 | 0.163 | 6.31 | 1.0 | 0.0 | 115.73 | 0.864 | 0.0 | 17.864 | 0.92 | 31.32 |
| 5.83 | 18.966 | 0.173 | 6.36 | 1.0 | 0.0 | 109.63 | 0.912 | 0.0 | 17.966 | 0.971 | 31.73 |
| 5.84 | 19.272 | 0.163 | 6.56 | 1.0 | 0.0 | 118.233 | 0.846 | 0.0 | 18.272 | 0.9 | 30.73 |
| 5.85 | 19.476 | 0.163 | 6.64 | 1.1 | 0.0 | 119.485 | 0.837 | 0.0 | 18.476 | 0.89 | 30.43 |
| 5.86 | 19.476 | 0.163 | 6.64 | 1.1 | 0.0 | 119.485 | 0.837 | 0.0 | 18.476 | 0.89 | 30.44 |
| 5.87 | 19.476 | 0.163 | 6.64 | 1.1 | 0.0 | 119.485 | 0.837 | 0.0 | 18.476 | 0.89 | 30.44 |
| 5.88 | 21.414 | 0.092 | 9.22 | 1.0 | 0.0 | 232.761 | 0.43 | 0.0 | 20.414 | 0.454 | 23.7 |
| 5.89 | 21.312 | 0.112 | 9.59 | 1.0 | 0.0 | 190.286 | 0.526 | 0.0 | 20.312 | 0.556 | 25.12 |
| 5.90 | 21.312 | 0.112 | 9.62 | 1.0 | 0.0 | 190.286 | 0.526 | 0.0 | 20.312 | 0.556 | 25.12 |
| 5.91 | 21.312 | 0.122 | 9.68 | 1.0 | 0.0 | 174.689 | 0.572 | 0.0 | 20.312 | 0.606 | 25.73 |
| 5.92 | 21.516 | 0.122 | 9.77 | 1.0 | 0.0 | 176.361 | 0.567 | 0.0 | 20.516 | 0.6 | 25.5 |
| 5.93 | 21.72 | 0.122 | 9.78 | 1.0 | 0.0 | 178.033 | 0.562 | 0.0 | 20.72 | 0.594 | 25.27 |
| 5.94 | 21.312 | 0.112 | 10.02 | 1.0 | 0.0 | 190.286 | 0.526 | 0.0 | 20.312 | 0.556 | 25.12 |
| 5.95 | 21.516 | 0.102 | 10.08 | 1.0 | 0.0 | 210.941 | 0.474 | 0.0 | 20.516 | 0.501 | 24.26 |
| 5.96 | 21.618 | 0.102 | 10.10 | 1.1 | 0.0 | 211.941 | 0.472 | 0.0 | 20.618 | 0.499 | 24.15 |
| 5.97 | 21.414 | 0.102 | 10.08 | 1.0 | 0.0 | 209.941 | 0.476 | 0.0 | 20.414 | 0.504 | 24.37 |
| 5.98 | 21.414 | 0.112 | 10.09 | 1.1 | 0.0 | 191.196 | 0.523 | 0.0 | 20.414 | 0.554 | 25.01 |
| 5.99 | 21.312 | 0.112 | 10.06 | 1.0 | 0.0 | 190.286 | 0.526 | 0.0 | 20.312 | 0.556 | 25.13 |
| 6.00 | 20.802 | 0.112 | 10.01 | 1.0 | 0.0 | 185.732 | 0.538 | 0.0 | 19.802 | 0.571 | 25.71 |
| 6.01 | 20.394 | 0.102 | 9.98 | 1.0 | 0.0 | 199.941 | 0.5 | 0.0 | 19.394 | 0.531 | 25.53 |
| 6.02 | 20.292 | 0.092 | 9.92 | 1.1 | 0.0 | 220.565 | 0.453 | 0.0 | 19.292 | 0.482 | 24.96 |
| 6.03 | 20.088 | 0.092 | 9.86 | 1.0 | 0.0 | 218.348 | 0.458 | 0.0 | 19.088 | 0.487 | 25.2 |
| 6.04 | 19.68 | 0.092 | 9.82 | 1.1 | 0.0 | 213.913 | 0.467 | 0.0 | 18.68 | 0.498 | 25.69 |
| 6.05 | 19.476 | 0.082 | 9.67 | 1.1 | 0.0 | 237.512 | 0.421 | 0.0 | 18.476 | 0.449 | 25.19 |
| 6.06 | 19.068 | 0.071 | 9.68 | 1.1 | 0.0 | 268.563 | 0.372 | 0.0 | 18.068 | 0.397 | 24.8 |
| 6.07 | 18.864 | 0.071 | 9.66 | 1.0 | 0.0 | 265.69 | 0.376 | 0.0 | 17.864 | 0.402 | 25.05 |

Prova n. 8

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|-------|
| 6.08 | 18.864 | 0.082 | 9.70 | 1.1 | 0.0 | 230.049 | 0.435 | 0.0 | 17.864 | 0.464 | 25.95 |
| 6.09 | 18.864 | 0.082 | 9.70 | 1.1 | 0.0 | 230.049 | 0.435 | 0.0 | 17.864 | 0.464 | 25.95 |
| 6.10 | 18.762 | 0.082 | 9.68 | 1.1 | 0.0 | 228.805 | 0.437 | 0.0 | 17.762 | 0.467 | 26.09 |
| 6.11 | 18.661 | 0.082 | 9.68 | 1.0 | 0.0 | 227.573 | 0.439 | 0.0 | 17.661 | 0.47 | 26.22 |
| 6.12 | 18.762 | 0.092 | 9.69 | 1.0 | 0.0 | 203.935 | 0.49 | 0.0 | 17.762 | 0.524 | 26.86 |
| 6.13 | 18.966 | 0.092 | 9.72 | 1.0 | 0.0 | 206.152 | 0.485 | 0.0 | 17.966 | 0.518 | 26.6 |
| 6.14 | 19.068 | 0.102 | 9.72 | 1.0 | 0.0 | 186.941 | 0.535 | 0.0 | 18.068 | 0.571 | 27.2 |
| 6.15 | 19.17 | 0.102 | 9.73 | 1.0 | 0.0 | 187.941 | 0.532 | 0.0 | 18.17 | 0.568 | 27.06 |
| 6.16 | 19.272 | 0.112 | 9.73 | 1.0 | 0.0 | 172.071 | 0.581 | 0.0 | 18.272 | 0.62 | 27.62 |
| 6.17 | 19.272 | 0.122 | 9.73 | 1.0 | 0.0 | 157.967 | 0.633 | 0.0 | 18.272 | 0.676 | 28.29 |
| 6.18 | 19.272 | 0.133 | 9.73 | 1.0 | 0.0 | 144.902 | 0.69 | 0.0 | 18.272 | 0.737 | 28.99 |
| 6.19 | 19.374 | 0.133 | 9.74 | 1.0 | 0.0 | 145.669 | 0.686 | 0.0 | 18.374 | 0.733 | 28.85 |
| 6.20 | 20.088 | 0.143 | 9.79 | 1.0 | 0.0 | 140.476 | 0.712 | 0.0 | 19.088 | 0.758 | 28.5 |
| 6.21 | 20.394 | 0.153 | 9.85 | 1.0 | 0.0 | 133.294 | 0.75 | 0.0 | 19.394 | 0.798 | 28.67 |
| 6.22 | 20.7 | 0.153 | 9.91 | 1.0 | 0.0 | 135.294 | 0.739 | 0.0 | 19.7 | 0.786 | 28.27 |
| 6.23 | 20.7 | 0.153 | 9.91 | 1.0 | 0.0 | 135.294 | 0.739 | 0.0 | 19.7 | 0.786 | 28.28 |
| 6.24 | 20.598 | 0.153 | 9.84 | 1.0 | 0.0 | 134.627 | 0.743 | 0.0 | 19.598 | 0.79 | 28.41 |
| 6.25 | 20.496 | 0.153 | 9.87 | 1.0 | 0.0 | 133.961 | 0.746 | 0.0 | 19.496 | 0.794 | 28.54 |
| 6.26 | 20.394 | 0.153 | 9.88 | 1.0 | 0.0 | 133.294 | 0.75 | 0.0 | 19.394 | 0.799 | 28.67 |
| 6.27 | 20.19 | 0.153 | 9.98 | 1.0 | 0.0 | 131.961 | 0.758 | 0.0 | 19.19 | 0.807 | 28.94 |
| 6.28 | 20.394 | 0.153 | 10.06 | 1.0 | 0.0 | 133.294 | 0.75 | 0.0 | 19.394 | 0.799 | 28.67 |
| 6.29 | 20.598 | 0.143 | 10.19 | 1.0 | 0.0 | 144.042 | 0.694 | 0.0 | 19.598 | 0.739 | 27.85 |
| 6.30 | 20.904 | 0.143 | 10.30 | 1.0 | 0.0 | 146.182 | 0.684 | 0.0 | 19.904 | 0.727 | 27.47 |
| 6.31 | 21.414 | 0.143 | 10.45 | 1.0 | 0.0 | 149.748 | 0.668 | 0.0 | 20.414 | 0.709 | 26.86 |
| 6.32 | 22.026 | 0.143 | 10.61 | 1.0 | 0.0 | 154.028 | 0.649 | 0.0 | 21.026 | 0.688 | 26.15 |
| 6.33 | 22.739 | 0.153 | 10.75 | 1.0 | 0.0 | 148.621 | 0.673 | 0.0 | 21.739 | 0.712 | 25.89 |
| 6.34 | 23.759 | 0.153 | 10.85 | 1.0 | 0.0 | 155.288 | 0.644 | 0.0 | 22.759 | 0.68 | 24.83 |
| 6.35 | 23.861 | 0.153 | 10.85 | 1.0 | 0.0 | 155.954 | 0.641 | 0.0 | 22.861 | 0.677 | 24.73 |
| 6.36 | 23.963 | 0.153 | 10.88 | 1.0 | 0.0 | 156.621 | 0.638 | 0.0 | 22.963 | 0.674 | 24.62 |
| 6.37 | 23.759 | 0.163 | 10.87 | 1.0 | 0.0 | 145.761 | 0.686 | 0.0 | 22.759 | 0.724 | 25.32 |
| 6.38 | 23.759 | 0.163 | 10.95 | 1.0 | 0.0 | 145.761 | 0.686 | 0.0 | 22.759 | 0.725 | 25.32 |
| 6.39 | 24.065 | 0.153 | 10.81 | 1.0 | 0.0 | 157.288 | 0.636 | 0.0 | 23.065 | 0.671 | 24.53 |
| 6.40 | 24.371 | 0.122 | 9.06 | 1.0 | 0.0 | 199.762 | 0.501 | 0.0 | 23.371 | 0.528 | 22.64 |
| 6.41 | 25.391 | 0.122 | 9.19 | 1.0 | 0.0 | 208.123 | 0.48 | 0.0 | 24.391 | 0.506 | 21.73 |
| 6.42 | 24.473 | 0.122 | 11.87 | 1.0 | 0.0 | 200.598 | 0.499 | 0.0 | 23.473 | 0.526 | 22.54 |
| 6.43 | 24.371 | 0.133 | 10.41 | 1.0 | 0.0 | 183.241 | 0.546 | 0.0 | 23.371 | 0.576 | 23.22 |
| 6.44 | 23.963 | 0.112 | 10.94 | 1.0 | 0.0 | 213.955 | 0.467 | 0.0 | 22.963 | 0.494 | 22.46 |
| 6.45 | 23.963 | 0.112 | 10.38 | 1.0 | 0.0 | 213.955 | 0.467 | 0.0 | 22.963 | 0.494 | 22.46 |
| 6.46 | 23.249 | 0.102 | 9.86 | 1.0 | 0.0 | 227.931 | 0.439 | 0.0 | 22.249 | 0.464 | 22.54 |
| 6.47 | 22.535 | 0.082 | 9.69 | 1.0 | 0.0 | 274.817 | 0.364 | 0.0 | 21.535 | 0.386 | 21.93 |
| 6.48 | 21.822 | 0.071 | 9.24 | 1.0 | 0.0 | 307.352 | 0.325 | 0.0 | 20.822 | 0.346 | 21.84 |
| 6.49 | 21.312 | 0.071 | 9.75 | 1.0 | 0.0 | 300.169 | 0.333 | 0.0 | 20.312 | 0.354 | 22.34 |
| 6.50 | 20.7 | 0.082 | 9.82 | 1.0 | 0.0 | 252.439 | 0.396 | 0.0 | 19.7 | 0.422 | 23.81 |
| 6.51 | 20.292 | 0.082 | 9.31 | 1.0 | 0.0 | 247.463 | 0.404 | 0.0 | 19.292 | 0.431 | 24.26 |
| 6.52 | 19.986 | 0.071 | 9.16 | 1.0 | 0.0 | 281.493 | 0.355 | 0.0 | 18.986 | 0.38 | 23.76 |
| 6.53 | 19.986 | 0.071 | 9.11 | 1.0 | 0.0 | 281.493 | 0.355 | 0.0 | 18.986 | 0.38 | 23.76 |
| 6.54 | 19.68 | 0.082 | 9.07 | 1.0 | 0.0 | 240.0 | 0.417 | 0.0 | 18.68 | 0.446 | 24.98 |
| 6.55 | 19.272 | 0.092 | 9.30 | 1.0 | 0.0 | 209.478 | 0.477 | 0.0 | 18.272 | 0.512 | 26.24 |
| 6.56 | 19.272 | 0.092 | 9.51 | 1.0 | 0.0 | 209.478 | 0.477 | 0.0 | 18.272 | 0.512 | 26.24 |
| 6.57 | 19.68 | 0.092 | 9.45 | 1.0 | 0.0 | 213.913 | 0.467 | 0.0 | 18.68 | 0.501 | 25.73 |
| 6.58 | 19.782 | 0.102 | 9.44 | 1.0 | 0.0 | 193.941 | 0.516 | 0.0 | 18.782 | 0.552 | 26.32 |
| 6.59 | 19.68 | 0.112 | 9.48 | 1.0 | 0.0 | 175.714 | 0.569 | 0.0 | 18.68 | 0.609 | 27.13 |
| 6.60 | 19.578 | 0.133 | 9.47 | 1.0 | 0.0 | 147.203 | 0.679 | 0.0 | 18.578 | 0.728 | 28.61 |
| 6.61 | 19.68 | 0.143 | 9.45 | 1.0 | 0.0 | 137.622 | 0.727 | 0.0 | 18.68 | 0.778 | 29.08 |
| 6.62 | 19.374 | 0.153 | 9.48 | 1.0 | 0.0 | 126.627 | 0.79 | 0.0 | 18.374 | 0.847 | 30.09 |
| 6.63 | 19.374 | 0.163 | 9.49 | 1.0 | 0.0 | 118.859 | 0.841 | 0.0 | 18.374 | 0.902 | 30.66 |
| 6.64 | 19.374 | 0.163 | 9.51 | 1.0 | 0.0 | 118.859 | 0.841 | 0.0 | 18.374 | 0.902 | 30.66 |
| 6.65 | 19.374 | 0.173 | 9.48 | 1.0 | 0.0 | 111.988 | 0.893 | 0.0 | 18.374 | 0.958 | 31.21 |
| 6.66 | 19.272 | 0.173 | 9.53 | 1.0 | 0.0 | 111.399 | 0.898 | 0.0 | 18.272 | 0.963 | 31.36 |
| 6.67 | 19.272 | 0.184 | 9.58 | 1.0 | 0.0 | 104.739 | 0.955 | 0.0 | 18.272 | 1.025 | 31.95 |
| 6.68 | 19.17 | 0.184 | 9.59 | 1.0 | 0.0 | 104.185 | 0.96 | 0.0 | 18.17 | 1.031 | 32.1 |
| 6.69 | 19.272 | 0.184 | 9.58 | 1.0 | 0.0 | 104.739 | 0.955 | 0.0 | 18.272 | 1.025 | 31.95 |
| 6.70 | 19.17 | 0.184 | 9.57 | 1.0 | 0.0 | 104.185 | 0.96 | 0.0 | 18.17 | 1.031 | 32.11 |
| 6.71 | 19.17 | 0.184 | 9.57 | 1.0 | 0.0 | 104.185 | 0.96 | 0.0 | 18.17 | 1.031 | 32.11 |
| 6.72 | 19.17 | 0.184 | 9.56 | 1.0 | 0.0 | 104.185 | 0.96 | 0.0 | 18.17 | 1.031 | 32.11 |
| 6.73 | 19.17 | 0.184 | 9.57 | 1.0 | 0.0 | 104.185 | 0.96 | 0.0 | 18.17 | 1.031 | 32.11 |

Prova n. 8

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|-------|
| 6.74 | 19.272 | 0.184 | 9.58 | 1.0 | 0.0 | 104.739 | 0.955 | 0.0 | 18.272 | 1.026 | 31.96 |
| 6.75 | 19.272 | 0.184 | 9.58 | 1.0 | 0.0 | 104.739 | 0.955 | 0.0 | 18.272 | 1.026 | 31.96 |
| 6.76 | 19.272 | 0.184 | 9.59 | 1.0 | 0.0 | 104.739 | 0.955 | 0.0 | 18.272 | 1.026 | 31.96 |
| 6.77 | 19.272 | 0.184 | 9.60 | 1.0 | 0.0 | 104.739 | 0.955 | 0.0 | 18.272 | 1.026 | 31.96 |
| 6.78 | 19.272 | 0.184 | 9.61 | 1.0 | 0.0 | 104.739 | 0.955 | 0.0 | 18.272 | 1.026 | 31.96 |
| 6.79 | 19.272 | 0.184 | 9.61 | 1.0 | 0.0 | 104.739 | 0.955 | 0.0 | 18.272 | 1.026 | 31.96 |
| 6.80 | 19.272 | 0.184 | 9.61 | 1.0 | 0.0 | 104.739 | 0.955 | 0.0 | 18.272 | 1.026 | 31.96 |
| 6.81 | 19.272 | 0.173 | 9.61 | 1.0 | 0.0 | 111.399 | 0.898 | 0.0 | 18.272 | 0.965 | 31.38 |
| 6.82 | 19.272 | 0.173 | 9.63 | 1.0 | 0.0 | 111.399 | 0.898 | 0.0 | 18.272 | 0.965 | 31.38 |
| 6.83 | 19.374 | 0.173 | 9.63 | 1.0 | 0.0 | 111.988 | 0.893 | 0.0 | 18.374 | 0.96 | 31.23 |
| 6.84 | 19.374 | 0.173 | 9.64 | 1.0 | 0.0 | 111.988 | 0.893 | 0.0 | 18.374 | 0.96 | 31.23 |
| 6.85 | 19.374 | 0.173 | 9.65 | 1.0 | 0.0 | 111.988 | 0.893 | 0.0 | 18.374 | 0.96 | 31.23 |
| 6.86 | 19.374 | 0.173 | 9.65 | 1.0 | 0.0 | 111.988 | 0.893 | 0.0 | 18.374 | 0.96 | 31.23 |
| 6.87 | 19.374 | 0.173 | 9.65 | 1.0 | 0.0 | 111.988 | 0.893 | 0.0 | 18.374 | 0.96 | 31.23 |
| 6.88 | 19.68 | 0.153 | 9.72 | 1.0 | 0.0 | 128.627 | 0.777 | 0.0 | 18.68 | 0.835 | 29.68 |
| 6.89 | 19.68 | 0.153 | 9.81 | 1.0 | 0.0 | 128.627 | 0.777 | 0.0 | 18.68 | 0.835 | 29.68 |
| 6.90 | 19.68 | 0.153 | 10.01 | 1.0 | 0.0 | 128.627 | 0.777 | 0.0 | 18.68 | 0.835 | 29.69 |
| 6.91 | 19.578 | 0.163 | 10.08 | 1.0 | 0.0 | 120.11 | 0.833 | 0.0 | 18.578 | 0.895 | 30.39 |
| 6.92 | 19.578 | 0.163 | 10.08 | 1.0 | 0.0 | 120.11 | 0.833 | 0.0 | 18.578 | 0.895 | 30.39 |
| 6.93 | 19.578 | 0.163 | 10.09 | 1.0 | 0.0 | 120.11 | 0.833 | 0.0 | 18.578 | 0.895 | 30.4 |
| 6.94 | 19.578 | 0.163 | 10.09 | 1.0 | 0.0 | 120.11 | 0.833 | 0.0 | 18.578 | 0.895 | 30.4 |
| 6.95 | 19.578 | 0.163 | 10.09 | 1.0 | 0.0 | 120.11 | 0.833 | 0.0 | 18.578 | 0.895 | 30.4 |
| 6.96 | 19.476 | 0.163 | 10.10 | 1.0 | 0.0 | 119.485 | 0.837 | 0.0 | 18.476 | 0.9 | 30.54 |
| 6.97 | 19.476 | 0.163 | 10.11 | 1.0 | 0.0 | 119.485 | 0.837 | 0.0 | 18.476 | 0.901 | 30.54 |
| 6.98 | 19.476 | 0.163 | 10.10 | 1.0 | 0.0 | 119.485 | 0.837 | 0.0 | 18.476 | 0.901 | 30.55 |
| 6.99 | 19.374 | 0.163 | 10.10 | 1.0 | 0.0 | 118.859 | 0.841 | 0.0 | 18.374 | 0.906 | 30.69 |
| 7.00 | 19.272 | 0.153 | 10.10 | 1.0 | 0.0 | 125.961 | 0.794 | 0.0 | 18.272 | 0.855 | 30.27 |
| 7.01 | 19.272 | 0.153 | 10.11 | 1.0 | 0.0 | 125.961 | 0.794 | 0.0 | 18.272 | 0.855 | 30.27 |
| 7.02 | 19.272 | 0.153 | 10.12 | 1.0 | 0.0 | 125.961 | 0.794 | 0.0 | 18.272 | 0.855 | 30.27 |
| 7.03 | 19.17 | 0.143 | 10.15 | 1.0 | 0.0 | 134.056 | 0.746 | 0.0 | 18.17 | 0.804 | 29.82 |
| 7.04 | 19.17 | 0.143 | 10.15 | 1.0 | 0.0 | 134.056 | 0.746 | 0.0 | 18.17 | 0.804 | 29.82 |
| 7.05 | 19.272 | 0.143 | 10.16 | 1.0 | 0.0 | 134.769 | 0.742 | 0.0 | 18.272 | 0.8 | 29.68 |
| 7.06 | 19.272 | 0.143 | 10.16 | 1.0 | 0.0 | 134.769 | 0.742 | 0.0 | 18.272 | 0.8 | 29.68 |
| 7.07 | 19.17 | 0.143 | 10.17 | 1.0 | 0.0 | 134.056 | 0.746 | 0.0 | 18.17 | 0.805 | 29.83 |
| 7.08 | 19.272 | 0.143 | 10.21 | 1.0 | 0.0 | 134.769 | 0.742 | 0.0 | 18.272 | 0.8 | 29.68 |
| 7.09 | 19.374 | 0.143 | 10.22 | 1.0 | 0.0 | 135.483 | 0.738 | 0.0 | 18.374 | 0.796 | 29.54 |
| 7.10 | 19.476 | 0.143 | 10.25 | 1.0 | 0.0 | 136.196 | 0.734 | 0.0 | 18.476 | 0.791 | 29.4 |
| 7.11 | 19.578 | 0.133 | 10.29 | 1.0 | 0.0 | 147.203 | 0.679 | 0.0 | 18.578 | 0.732 | 28.65 |
| 7.12 | 19.68 | 0.133 | 10.33 | 1.0 | 0.0 | 147.97 | 0.676 | 0.0 | 18.68 | 0.728 | 28.52 |
| 7.13 | 19.782 | 0.133 | 10.39 | 1.0 | 0.0 | 148.737 | 0.672 | 0.0 | 18.782 | 0.724 | 28.38 |
| 7.14 | 20.088 | 0.133 | 10.54 | 1.0 | 0.0 | 151.038 | 0.662 | 0.0 | 19.088 | 0.712 | 27.98 |
| 7.15 | 20.292 | 0.133 | 10.64 | 1.0 | 0.0 | 152.571 | 0.655 | 0.0 | 19.292 | 0.704 | 27.72 |
| 7.16 | 20.394 | 0.133 | 10.70 | 1.0 | 0.0 | 153.338 | 0.652 | 0.0 | 19.394 | 0.701 | 27.59 |
| 7.17 | 20.598 | 0.133 | 10.78 | 1.0 | 0.0 | 154.872 | 0.646 | 0.0 | 19.598 | 0.693 | 27.34 |
| 7.18 | 20.7 | 0.133 | 10.85 | 1.0 | 0.0 | 155.639 | 0.643 | 0.0 | 19.7 | 0.69 | 27.21 |
| 7.19 | 20.802 | 0.133 | 10.92 | 1.0 | 0.0 | 156.406 | 0.639 | 0.0 | 19.802 | 0.686 | 27.09 |
| 7.20 | 21.21 | 0.133 | 11.11 | 1.0 | 0.0 | 159.474 | 0.627 | 0.0 | 20.21 | 0.672 | 26.6 |
| 7.21 | 21.516 | 0.133 | 11.20 | 1.0 | 0.0 | 161.774 | 0.618 | 0.0 | 20.516 | 0.662 | 26.24 |
| 7.22 | 21.72 | 0.133 | 11.36 | 1.0 | 0.0 | 163.308 | 0.612 | 0.0 | 20.72 | 0.655 | 26.01 |
| 7.23 | 22.026 | 0.133 | 11.48 | 1.0 | 0.0 | 165.609 | 0.604 | 0.0 | 21.026 | 0.646 | 25.66 |
| 7.24 | 22.433 | 0.133 | 11.67 | 1.0 | 0.0 | 168.669 | 0.593 | 0.0 | 21.433 | 0.633 | 25.22 |
| 7.25 | 22.739 | 0.133 | 11.81 | 1.0 | 0.0 | 170.97 | 0.585 | 0.0 | 21.739 | 0.624 | 24.89 |
| 7.26 | 22.943 | 0.133 | 11.94 | 1.0 | 0.0 | 172.504 | 0.58 | 0.0 | 21.943 | 0.618 | 24.68 |
| 7.27 | 23.249 | 0.133 | 12.09 | 1.0 | 0.0 | 174.805 | 0.572 | 0.0 | 22.249 | 0.61 | 24.37 |
| 7.28 | 23.759 | 0.122 | 12.45 | 1.0 | 0.0 | 194.746 | 0.513 | 0.0 | 22.759 | 0.547 | 23.26 |
| 7.29 | 23.963 | 0.122 | 12.59 | 1.0 | 0.0 | 196.418 | 0.509 | 0.0 | 22.963 | 0.542 | 23.07 |
| 7.30 | 24.065 | 0.122 | 12.73 | 1.0 | 0.0 | 197.254 | 0.507 | 0.0 | 23.065 | 0.539 | 22.97 |
| 7.31 | 24.269 | 0.112 | 12.78 | 1.0 | 0.0 | 216.688 | 0.461 | 0.0 | 23.269 | 0.491 | 22.22 |
| 7.32 | 24.575 | 0.112 | 12.82 | 1.0 | 0.0 | 219.42 | 0.456 | 0.0 | 23.575 | 0.484 | 21.95 |
| 7.33 | 24.677 | 0.102 | 12.94 | 1.0 | 0.0 | 241.931 | 0.413 | 0.0 | 23.677 | 0.439 | 21.29 |
| 7.34 | 24.779 | 0.102 | 13.01 | 1.0 | 0.0 | 242.931 | 0.412 | 0.0 | 23.779 | 0.437 | 21.2 |
| 7.35 | 24.881 | 0.102 | 13.08 | 1.0 | 0.0 | 243.931 | 0.41 | 0.0 | 23.881 | 0.435 | 21.12 |
| 7.36 | 25.085 | 0.092 | 13.12 | 1.0 | 0.0 | 272.663 | 0.367 | 0.0 | 24.085 | 0.389 | 20.36 |
| 7.37 | 25.187 | 0.092 | 13.14 | 1.0 | 0.0 | 273.772 | 0.365 | 0.0 | 24.187 | 0.388 | 20.28 |
| 7.38 | 25.492 | 0.092 | 13.23 | 1.0 | 0.0 | 277.087 | 0.361 | 0.0 | 24.492 | 0.383 | 20.03 |
| 7.39 | 25.594 | 0.102 | 13.27 | 1.0 | 0.0 | 250.922 | 0.399 | 0.0 | 24.594 | 0.423 | 20.53 |

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| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|-------|
| 7.40 | 25.696 | 0.102 | 13.31 | 0.9 | 0.0 | 251.922 | 0.397 | 0.0 | 24.696 | 0.421 | 20.44 |
| 7.41 | 25.798 | 0.102 | 13.36 | 1.0 | 0.0 | 252.922 | 0.395 | 0.0 | 24.798 | 0.419 | 20.36 |
| 7.42 | 25.798 | 0.102 | 13.44 | 1.0 | 0.0 | 252.922 | 0.395 | 0.0 | 24.798 | 0.419 | 20.36 |
| 7.43 | 26.002 | 0.092 | 13.53 | 1.0 | 0.0 | 282.63 | 0.354 | 0.0 | 25.002 | 0.375 | 19.64 |
| 7.44 | 26.614 | 0.102 | 13.64 | 1.0 | 0.0 | 260.922 | 0.383 | 0.0 | 25.614 | 0.406 | 19.73 |
| 7.45 | 27.022 | 0.102 | 13.84 | 1.0 | 0.0 | 264.922 | 0.377 | 0.0 | 26.022 | 0.399 | 19.42 |
| 7.46 | 27.328 | 0.102 | 13.94 | 1.0 | 0.0 | 267.922 | 0.373 | 0.0 | 26.328 | 0.395 | 19.2 |
| 7.47 | 27.838 | 0.102 | 14.16 | 0.9 | 0.0 | 272.922 | 0.366 | 0.0 | 26.838 | 0.387 | 18.83 |
| 7.48 | 28.348 | 0.102 | 14.28 | 0.9 | 0.0 | 277.922 | 0.36 | 0.0 | 27.348 | 0.38 | 18.48 |
| 7.49 | 28.858 | 0.112 | 14.38 | 1.0 | 0.0 | 257.661 | 0.388 | 0.0 | 27.858 | 0.409 | 18.64 |
| 7.50 | 28.959 | 0.112 | 14.12 | 1.0 | 0.0 | 258.563 | 0.387 | 0.0 | 27.959 | 0.408 | 18.57 |
| 7.51 | 28.45 | 0.112 | 14.31 | 1.0 | 0.0 | 254.018 | 0.394 | 0.0 | 27.45 | 0.415 | 18.92 |
| 7.52 | 29.061 | 0.102 | 14.02 | 1.0 | 0.0 | 284.912 | 0.351 | 0.0 | 28.061 | 0.37 | 18.01 |
| 7.53 | 28.144 | 0.092 | 13.82 | 1.0 | 0.0 | 305.913 | 0.327 | 0.0 | 27.144 | 0.345 | 18.1 |
| 7.54 | 27.736 | 0.092 | 14.39 | 1.0 | 0.0 | 301.478 | 0.332 | 0.0 | 26.736 | 0.351 | 18.37 |
| 7.55 | 27.43 | 0.092 | 14.56 | 1.0 | 0.0 | 298.152 | 0.335 | 0.0 | 26.43 | 0.355 | 18.59 |
| 7.56 | 26.716 | 0.092 | 14.63 | 1.0 | 0.0 | 290.391 | 0.344 | 0.0 | 25.716 | 0.365 | 19.1 |
| 7.57 | 25.798 | 0.082 | 14.83 | 1.0 | 0.0 | 314.61 | 0.318 | 0.0 | 24.798 | 0.337 | 19.21 |
| 7.58 | 25.289 | 0.082 | 14.48 | 1.0 | 0.0 | 308.402 | 0.324 | 0.0 | 24.289 | 0.345 | 19.6 |
| 7.59 | 24.881 | 0.071 | 14.08 | 1.0 | 0.0 | 350.437 | 0.285 | 0.0 | 23.881 | 0.304 | 19.22 |
| 7.60 | 24.575 | 0.071 | 13.99 | 1.0 | 0.0 | 346.127 | 0.289 | 0.0 | 23.575 | 0.308 | 19.46 |
| 7.61 | 24.167 | 0.071 | 13.94 | 1.0 | 0.0 | 340.38 | 0.294 | 0.0 | 23.167 | 0.313 | 19.79 |
| 7.62 | 23.351 | 0.071 | 13.65 | 1.0 | 0.0 | 328.887 | 0.304 | 0.0 | 22.351 | 0.325 | 20.48 |
| 7.63 | 22.841 | 0.082 | 13.55 | 1.0 | 0.0 | 278.549 | 0.359 | 0.0 | 21.841 | 0.384 | 21.7 |
| 7.64 | 22.535 | 0.092 | 13.43 | 1.0 | 0.0 | 244.946 | 0.408 | 0.0 | 21.535 | 0.438 | 22.66 |
| 7.65 | 22.127 | 0.092 | 13.29 | 1.0 | 0.0 | 240.511 | 0.416 | 0.0 | 21.127 | 0.446 | 23.07 |
| 7.66 | 21.924 | 0.102 | 13.09 | 1.0 | 0.0 | 214.941 | 0.465 | 0.0 | 20.924 | 0.5 | 23.94 |
| 7.67 | 21.72 | 0.102 | 12.81 | 1.0 | 0.0 | 212.941 | 0.47 | 0.0 | 20.72 | 0.505 | 24.15 |
| 7.68 | 21.414 | 0.112 | 12.70 | 1.0 | 0.0 | 191.196 | 0.523 | 0.0 | 20.414 | 0.563 | 25.13 |
| 7.69 | 21.312 | 0.102 | 12.71 | 1.0 | 0.0 | 208.941 | 0.479 | 0.0 | 20.312 | 0.515 | 24.6 |
| 7.70 | 21.312 | 0.112 | 12.69 | 1.0 | 0.0 | 190.286 | 0.526 | 0.0 | 20.312 | 0.566 | 25.24 |
| 7.71 | 21.312 | 0.112 | 12.63 | 1.0 | 0.0 | 190.286 | 0.526 | 0.0 | 20.312 | 0.566 | 25.24 |
| 7.72 | 21.006 | 0.122 | 12.57 | 1.0 | 0.0 | 172.18 | 0.581 | 0.0 | 20.006 | 0.626 | 26.22 |
| 7.73 | 20.802 | 0.133 | 12.51 | 1.0 | 0.0 | 156.406 | 0.639 | 0.0 | 19.802 | 0.69 | 27.13 |
| 7.74 | 20.802 | 0.153 | 12.47 | 1.0 | 0.0 | 135.961 | 0.736 | 0.0 | 19.802 | 0.794 | 28.28 |
| 7.75 | 20.7 | 0.153 | 12.45 | 1.0 | 0.0 | 135.294 | 0.739 | 0.0 | 19.7 | 0.798 | 28.41 |
| 7.76 | 20.7 | 0.153 | 12.40 | 1.0 | 0.0 | 135.294 | 0.739 | 0.0 | 19.7 | 0.798 | 28.41 |
| 7.77 | 20.598 | 0.163 | 12.36 | 1.0 | 0.0 | 126.368 | 0.791 | 0.0 | 19.598 | 0.855 | 29.09 |
| 7.78 | 20.598 | 0.163 | 12.34 | 1.0 | 0.0 | 126.368 | 0.791 | 0.0 | 19.598 | 0.855 | 29.09 |
| 7.79 | 20.598 | 0.163 | 12.32 | 1.0 | 0.0 | 126.368 | 0.791 | 0.0 | 19.598 | 0.855 | 29.09 |
| 7.80 | 20.598 | 0.173 | 12.29 | 1.0 | 0.0 | 119.064 | 0.84 | 0.0 | 19.598 | 0.908 | 29.62 |
| 7.81 | 20.7 | 0.173 | 12.25 | 1.0 | 0.0 | 119.653 | 0.836 | 0.0 | 19.7 | 0.903 | 29.49 |
| 7.82 | 20.802 | 0.184 | 12.25 | 1.0 | 0.0 | 113.054 | 0.885 | 0.0 | 19.802 | 0.956 | 29.92 |
| 7.83 | 20.802 | 0.184 | 12.20 | 1.0 | 0.0 | 113.054 | 0.885 | 0.0 | 19.802 | 0.956 | 29.92 |
| 7.84 | 20.7 | 0.184 | 12.13 | 1.0 | 0.0 | 112.5 | 0.889 | 0.0 | 19.7 | 0.961 | 30.05 |
| 7.85 | 20.598 | 0.184 | 12.09 | 1.0 | 0.0 | 111.946 | 0.893 | 0.0 | 19.598 | 0.966 | 30.19 |
| 7.86 | 20.598 | 0.184 | 12.09 | 1.0 | 0.0 | 111.946 | 0.893 | 0.0 | 19.598 | 0.966 | 30.19 |
| 7.87 | 20.598 | 0.184 | 12.09 | 1.0 | 0.0 | 111.946 | 0.893 | 0.0 | 19.598 | 0.966 | 30.19 |
| 7.88 | 20.7 | 0.173 | 11.48 | 1.0 | 0.0 | 119.653 | 0.836 | 0.0 | 19.7 | 0.904 | 29.49 |
| 7.89 | 20.496 | 0.184 | 11.46 | 1.0 | 0.0 | 111.391 | 0.898 | 0.0 | 19.496 | 0.972 | 30.33 |
| 7.90 | 20.394 | 0.194 | 11.43 | 1.0 | 0.0 | 105.124 | 0.951 | 0.0 | 19.394 | 1.03 | 30.97 |
| 7.91 | 20.394 | 0.194 | 11.39 | 1.0 | 0.0 | 105.124 | 0.951 | 0.0 | 19.394 | 1.03 | 30.98 |
| 7.92 | 20.292 | 0.194 | 11.37 | 1.0 | 0.0 | 104.598 | 0.956 | 0.0 | 19.292 | 1.036 | 31.12 |
| 7.93 | 20.19 | 0.184 | 11.30 | 1.0 | 0.0 | 109.728 | 0.911 | 0.0 | 19.19 | 0.988 | 30.76 |
| 7.94 | 20.088 | 0.194 | 11.25 | 1.0 | 0.0 | 103.546 | 0.966 | 0.0 | 19.088 | 1.048 | 31.41 |
| 7.95 | 20.088 | 0.194 | 11.25 | 1.0 | 0.0 | 103.546 | 0.966 | 0.0 | 19.088 | 1.048 | 31.41 |
| 7.96 | 19.884 | 0.194 | 11.23 | 1.0 | 0.0 | 102.495 | 0.976 | 0.0 | 18.884 | 1.059 | 31.7 |
| 7.97 | 19.884 | 0.194 | 11.23 | 1.0 | 0.0 | 102.495 | 0.976 | 0.0 | 18.884 | 1.06 | 31.7 |
| 7.98 | 19.884 | 0.194 | 11.21 | 1.0 | 0.0 | 102.495 | 0.976 | 0.0 | 18.884 | 1.06 | 31.71 |
| 7.99 | 19.782 | 0.194 | 11.15 | 1.0 | 0.0 | 101.969 | 0.981 | 0.0 | 18.782 | 1.066 | 31.85 |
| 8.00 | 19.68 | 0.194 | 11.12 | 1.0 | 0.0 | 101.443 | 0.986 | 0.0 | 18.68 | 1.072 | 32 |
| 8.01 | 19.68 | 0.194 | 11.07 | 1.0 | 0.0 | 101.443 | 0.986 | 0.0 | 18.68 | 1.072 | 32.01 |
| 8.02 | 19.578 | 0.194 | 11.05 | 1.0 | 0.0 | 100.918 | 0.991 | 0.0 | 18.578 | 1.078 | 32.16 |
| 8.03 | 19.476 | 0.194 | 11.06 | 1.0 | 0.0 | 100.392 | 0.996 | 0.0 | 18.476 | 1.084 | 32.31 |
| 8.04 | 19.578 | 0.184 | 11.05 | 1.0 | 0.0 | 106.402 | 0.94 | 0.0 | 18.578 | 1.023 | 31.64 |
| 8.05 | 19.578 | 0.184 | 11.05 | 1.0 | 0.0 | 106.402 | 0.94 | 0.0 | 18.578 | 1.023 | 31.64 |

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| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|-------|
| 8.06 | 19.578 | 0.184 | 11.04 | 1.0 | 0.0 | 106.402 | 0.94 | 0.0 | 18.578 | 1.023 | 31.65 |
| 8.07 | 19.578 | 0.184 | 11.02 | 1.0 | 0.0 | 106.402 | 0.94 | 0.0 | 18.578 | 1.023 | 31.65 |
| 8.08 | 19.68 | 0.184 | 11.01 | 1.0 | 0.0 | 106.957 | 0.935 | 0.0 | 18.68 | 1.017 | 31.5 |
| 8.09 | 19.68 | 0.184 | 11.00 | 1.0 | 0.0 | 106.957 | 0.935 | 0.0 | 18.68 | 1.018 | 31.5 |
| 8.10 | 19.578 | 0.184 | 10.99 | 1.0 | 0.0 | 106.402 | 0.94 | 0.0 | 18.578 | 1.023 | 31.65 |
| 8.11 | 19.68 | 0.184 | 10.98 | 1.0 | 0.0 | 106.957 | 0.935 | 0.0 | 18.68 | 1.018 | 31.5 |
| 8.12 | 19.68 | 0.184 | 10.96 | 1.0 | 0.0 | 106.957 | 0.935 | 0.0 | 18.68 | 1.018 | 31.5 |
| 8.13 | 19.68 | 0.184 | 10.96 | 1.0 | 0.0 | 106.957 | 0.935 | 0.0 | 18.68 | 1.018 | 31.5 |
| 8.14 | 19.68 | 0.184 | 10.95 | 1.0 | 0.0 | 106.957 | 0.935 | 0.0 | 18.68 | 1.018 | 31.5 |
| 8.15 | 19.68 | 0.184 | 10.94 | 1.0 | 0.0 | 106.957 | 0.935 | 0.0 | 18.68 | 1.018 | 31.51 |
| 8.16 | 20.088 | 0.184 | 10.99 | 1.0 | 0.0 | 109.174 | 0.916 | 0.0 | 19.088 | 0.996 | 30.92 |
| 8.17 | 20.292 | 0.194 | 11.05 | 1.0 | 0.0 | 104.598 | 0.956 | 0.0 | 19.292 | 1.039 | 31.14 |
| 8.18 | 20.394 | 0.194 | 11.08 | 1.1 | 0.0 | 105.124 | 0.951 | 0.0 | 19.394 | 1.033 | 31 |
| 8.19 | 20.394 | 0.194 | 11.07 | 1.0 | 0.0 | 105.124 | 0.951 | 0.0 | 19.394 | 1.033 | 31 |
| 8.20 | 20.19 | 0.194 | 11.02 | 1.0 | 0.0 | 104.072 | 0.961 | 0.0 | 19.19 | 1.045 | 31.29 |
| 8.21 | 20.088 | 0.194 | 10.93 | 1.0 | 0.0 | 103.546 | 0.966 | 0.0 | 19.088 | 1.051 | 31.44 |
| 8.22 | 19.782 | 0.194 | 10.78 | 1.0 | 0.0 | 101.969 | 0.981 | 0.0 | 18.782 | 1.068 | 31.88 |
| 8.23 | 19.578 | 0.194 | 10.77 | 1.1 | 0.0 | 100.918 | 0.991 | 0.0 | 18.578 | 1.081 | 32.18 |
| 8.24 | 19.476 | 0.194 | 10.76 | 1.1 | 0.0 | 100.392 | 0.996 | 0.0 | 18.476 | 1.087 | 32.33 |
| 8.25 | 19.578 | 0.194 | 10.75 | 1.1 | 0.0 | 100.918 | 0.991 | 0.0 | 18.578 | 1.081 | 32.18 |
| 8.26 | 19.578 | 0.194 | 10.76 | 1.1 | 0.0 | 100.918 | 0.991 | 0.0 | 18.578 | 1.081 | 32.18 |
| 8.27 | 19.68 | 0.194 | 10.76 | 1.1 | 0.0 | 101.443 | 0.986 | 0.0 | 18.68 | 1.075 | 32.03 |
| 8.28 | 19.782 | 0.194 | 10.77 | 1.1 | 0.0 | 101.969 | 0.981 | 0.0 | 18.782 | 1.069 | 31.89 |
| 8.29 | 19.782 | 0.194 | 10.74 | 1.1 | 0.0 | 101.969 | 0.981 | 0.0 | 18.782 | 1.069 | 31.89 |
| 8.30 | 19.68 | 0.194 | 10.71 | 1.1 | 0.0 | 101.443 | 0.986 | 0.0 | 18.68 | 1.075 | 32.04 |
| 8.31 | 19.578 | 0.194 | 10.68 | 1.1 | 0.0 | 100.918 | 0.991 | 0.0 | 18.578 | 1.082 | 32.19 |
| 8.32 | 19.476 | 0.194 | 10.64 | 1.1 | 0.0 | 100.392 | 0.996 | 0.0 | 18.476 | 1.088 | 32.34 |
| 8.33 | 19.374 | 0.194 | 10.62 | 1.1 | 0.0 | 99.866 | 1.001 | 0.0 | 18.374 | 1.094 | 32.5 |
| 8.34 | 19.374 | 0.194 | 10.60 | 1.1 | 0.0 | 99.866 | 1.001 | 0.0 | 18.374 | 1.094 | 32.5 |
| 8.35 | 19.272 | 0.204 | 10.58 | 1.1 | 0.0 | 94.471 | 1.059 | 0.0 | 18.272 | 1.158 | 33.16 |
| 8.36 | 19.17 | 0.194 | 10.55 | 1.1 | 0.0 | 98.814 | 1.012 | 0.0 | 18.17 | 1.107 | 32.81 |
| 8.37 | 19.17 | 0.194 | 10.54 | 1.1 | 0.0 | 98.814 | 1.012 | 0.0 | 18.17 | 1.108 | 32.81 |
| 8.38 | 19.068 | 0.194 | 10.53 | 1.1 | 0.0 | 98.289 | 1.017 | 0.0 | 18.068 | 1.114 | 32.97 |
| 8.39 | 19.068 | 0.194 | 10.52 | 1.1 | 0.0 | 98.289 | 1.017 | 0.0 | 18.068 | 1.114 | 32.97 |
| 8.40 | 19.068 | 0.194 | 10.50 | 1.1 | 0.0 | 98.289 | 1.017 | 0.0 | 18.068 | 1.114 | 32.97 |
| 8.41 | 19.068 | 0.194 | 10.48 | 1.1 | 0.0 | 98.289 | 1.017 | 0.0 | 18.068 | 1.114 | 32.98 |
| 8.42 | 18.966 | 0.194 | 10.46 | 1.1 | 0.0 | 97.763 | 1.023 | 0.0 | 17.966 | 1.121 | 33.14 |
| 8.43 | 18.864 | 0.184 | 10.42 | 1.1 | 0.0 | 102.522 | 0.975 | 0.0 | 17.864 | 1.07 | 32.77 |
| 8.44 | 18.864 | 0.184 | 10.40 | 1.1 | 0.0 | 102.522 | 0.975 | 0.0 | 17.864 | 1.07 | 32.77 |
| 8.45 | 18.864 | 0.184 | 10.38 | 1.1 | 0.0 | 102.522 | 0.975 | 0.0 | 17.864 | 1.07 | 32.77 |
| 8.46 | 18.762 | 0.184 | 10.37 | 1.1 | 0.0 | 101.967 | 0.981 | 0.0 | 17.762 | 1.077 | 32.93 |
| 8.47 | 18.762 | 0.184 | 10.36 | 1.1 | 0.0 | 101.967 | 0.981 | 0.0 | 17.762 | 1.077 | 32.93 |
| 8.48 | 18.762 | 0.184 | 10.36 | 1.1 | 0.0 | 101.967 | 0.981 | 0.0 | 17.762 | 1.077 | 32.93 |
| 8.49 | 18.661 | 0.184 | 10.37 | 1.1 | 0.0 | 101.418 | 0.986 | 0.0 | 17.661 | 1.083 | 33.09 |
| 8.50 | 18.762 | 0.184 | 10.37 | 1.1 | 0.0 | 101.967 | 0.981 | 0.0 | 17.762 | 1.077 | 32.93 |
| 8.51 | 18.762 | 0.173 | 10.36 | 1.1 | 0.0 | 108.451 | 0.922 | 0.0 | 17.762 | 1.013 | 32.33 |
| 8.52 | 18.762 | 0.173 | 10.37 | 1.1 | 0.0 | 108.451 | 0.922 | 0.0 | 17.762 | 1.013 | 32.33 |
| 8.53 | 18.864 | 0.173 | 10.36 | 1.1 | 0.0 | 109.04 | 0.917 | 0.0 | 17.864 | 1.007 | 32.17 |
| 8.54 | 18.864 | 0.173 | 10.36 | 1.1 | 0.0 | 109.04 | 0.917 | 0.0 | 17.864 | 1.007 | 32.18 |
| 8.55 | 18.762 | 0.184 | 10.35 | 1.1 | 0.0 | 101.967 | 0.981 | 0.0 | 17.762 | 1.078 | 32.94 |
| 8.56 | 18.864 | 0.184 | 10.37 | 1.1 | 0.0 | 102.522 | 0.975 | 0.0 | 17.864 | 1.071 | 32.78 |
| 8.57 | 18.966 | 0.173 | 10.39 | 1.1 | 0.0 | 109.63 | 0.912 | 0.0 | 17.966 | 1.002 | 32.02 |
| 8.58 | 19.068 | 0.173 | 10.40 | 1.1 | 0.0 | 110.22 | 0.907 | 0.0 | 18.068 | 0.996 | 31.87 |
| 8.59 | 19.17 | 0.173 | 10.41 | 1.1 | 0.0 | 110.809 | 0.902 | 0.0 | 18.17 | 0.99 | 31.71 |
| 8.60 | 19.272 | 0.173 | 10.43 | 1.1 | 0.0 | 111.399 | 0.898 | 0.0 | 18.272 | 0.984 | 31.56 |
| 8.61 | 19.272 | 0.173 | 10.44 | 1.1 | 0.0 | 111.399 | 0.898 | 0.0 | 18.272 | 0.985 | 31.56 |
| 8.62 | 19.374 | 0.173 | 10.46 | 1.1 | 0.0 | 111.988 | 0.893 | 0.0 | 18.374 | 0.979 | 31.41 |
| 8.63 | 19.578 | 0.173 | 10.50 | 1.1 | 0.0 | 113.168 | 0.884 | 0.0 | 18.578 | 0.968 | 31.12 |
| 8.64 | 19.578 | 0.173 | 10.52 | 1.1 | 0.0 | 113.168 | 0.884 | 0.0 | 18.578 | 0.968 | 31.12 |
| 8.65 | 19.68 | 0.173 | 10.54 | 1.1 | 0.0 | 113.757 | 0.879 | 0.0 | 18.68 | 0.963 | 30.97 |
| 8.66 | 19.782 | 0.173 | 10.56 | 1.1 | 0.0 | 114.347 | 0.875 | 0.0 | 18.782 | 0.957 | 30.83 |
| 8.67 | 19.884 | 0.173 | 10.62 | 1.1 | 0.0 | 114.936 | 0.87 | 0.0 | 18.884 | 0.952 | 30.68 |
| 8.68 | 19.986 | 0.163 | 10.63 | 1.1 | 0.0 | 122.613 | 0.816 | 0.0 | 18.986 | 0.892 | 30 |
| 8.69 | 20.088 | 0.163 | 10.63 | 1.1 | 0.0 | 123.239 | 0.811 | 0.0 | 19.088 | 0.887 | 29.86 |
| 8.70 | 20.088 | 0.163 | 10.63 | 1.1 | 0.0 | 123.239 | 0.811 | 0.0 | 19.088 | 0.887 | 29.86 |
| 8.71 | 20.088 | 0.163 | 10.63 | 1.1 | 0.0 | 123.239 | 0.811 | 0.0 | 19.088 | 0.887 | 29.86 |

Prova n. 8

| | | | | | | | | | | | |
|------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|-------|
| 8.72 | 20.088 | 0.163 | 10.64 | 1.1 | 0.0 | 123.239 | 0.811 | 0.0 | 19.088 | 0.887 | 29.86 |
| 8.73 | 19.986 | 0.153 | 10.65 | 1.1 | 0.0 | 130.627 | 0.766 | 0.0 | 18.986 | 0.838 | 29.44 |
| 8.74 | 19.986 | 0.153 | 10.66 | 1.1 | 0.0 | 130.627 | 0.766 | 0.0 | 18.986 | 0.838 | 29.44 |
| 8.75 | 19.986 | 0.153 | 10.68 | 1.1 | 0.0 | 130.627 | 0.766 | 0.0 | 18.986 | 0.838 | 29.44 |
| 8.76 | 19.986 | 0.153 | 10.69 | 1.1 | 0.0 | 130.627 | 0.766 | 0.0 | 18.986 | 0.838 | 29.44 |
| 8.77 | 19.986 | 0.153 | 10.75 | 1.1 | 0.0 | 130.627 | 0.766 | 0.0 | 18.986 | 0.838 | 29.44 |
| 8.78 | 19.986 | 0.153 | 10.76 | 1.1 | 0.0 | 130.627 | 0.766 | 0.0 | 18.986 | 0.838 | 29.44 |
| 8.79 | 19.986 | 0.153 | 10.75 | 1.1 | 0.0 | 130.627 | 0.766 | 0.0 | 18.986 | 0.838 | 29.44 |
| 8.80 | 19.986 | 0.143 | 10.71 | 1.1 | 0.0 | 139.762 | 0.716 | 0.0 | 18.986 | 0.784 | 28.86 |
| 8.81 | 19.782 | 0.143 | 10.69 | 1.1 | 0.0 | 138.336 | 0.723 | 0.0 | 18.782 | 0.793 | 29.14 |
| 8.82 | 19.782 | 0.153 | 10.69 | 1.1 | 0.0 | 129.294 | 0.773 | 0.0 | 18.782 | 0.848 | 29.73 |
| 8.83 | 19.68 | 0.153 | 10.69 | 1.1 | 0.0 | 128.627 | 0.777 | 0.0 | 18.68 | 0.853 | 29.87 |
| 8.84 | 19.68 | 0.143 | 10.67 | 1.1 | 0.0 | 137.622 | 0.727 | 0.0 | 18.68 | 0.797 | 29.28 |
| 8.85 | 19.68 | 0.143 | 10.67 | 1.1 | 0.0 | 137.622 | 0.727 | 0.0 | 18.68 | 0.797 | 29.28 |
| 8.86 | 19.68 | 0.143 | 10.67 | 1.1 | 0.0 | 137.622 | 0.727 | 0.0 | 18.68 | 0.797 | 29.28 |
| 8.87 | 19.68 | 0.143 | 10.67 | 1.1 | 0.0 | 137.622 | 0.727 | 0.0 | 18.68 | 0.798 | 29.28 |
| 8.88 | 20.19 | 0.102 | 11.39 | 1.1 | 0.0 | 197.941 | 0.505 | 0.0 | 19.19 | 0.553 | 25.99 |
| 8.89 | 22.331 | 0.112 | 12.22 | 1.2 | 0.0 | 199.384 | 0.502 | 0.0 | 21.331 | 0.544 | 24.21 |
| 8.90 | 23.759 | 0.112 | 12.79 | 1.2 | 0.0 | 212.134 | 0.471 | 0.0 | 22.759 | 0.509 | 22.79 |
| 8.91 | 24.575 | 0.122 | 12.91 | 1.2 | 0.0 | 201.434 | 0.496 | 0.0 | 23.575 | 0.535 | 22.59 |
| 8.92 | 26.41 | 0.122 | 13.36 | 1.2 | 0.0 | 216.475 | 0.462 | 0.0 | 25.41 | 0.495 | 21.01 |
| 8.93 | 34.568 | 0.143 | 14.18 | 1.2 | 0.0 | 241.734 | 0.414 | 0.0 | 33.568 | 0.436 | 16.59 |
| 8.94 | 42.725 | 0.163 | 13.39 | 1.1 | 0.0 | 262.117 | 0.382 | 0.0 | 41.725 | 0.398 | 13.58 |
| 8.95 | 54.248 | 0.163 | 11.27 | 1.1 | 0.0 | 332.81 | 0.3 | 0.0 | 53.248 | 0.311 | 10 |
| 8.96 | 64.241 | 0.153 | 7.41 | 1.1 | 0.0 | 419.876 | 0.238 | 0.0 | 63.241 | 0.245 | 7.63 |
| 8.97 | 71.991 | 0.143 | 2.68 | 1.1 | 0.0 | 503.434 | 0.199 | 0.0 | 70.991 | 0.204 | 6.17 |
| 8.98 | 73.826 | 0.265 | 0.16 | 1.1 | 0.0 | 278.589 | 0.359 | 0.0 | 72.826 | 0.368 | 7.9 |
| 8.99 | 67.708 | 0.337 | 0.46 | 1.1 | 0.0 | 200.914 | 0.498 | 0.0 | 66.708 | 0.511 | 10.15 |
| 9.00 | 61.692 | 0.337 | 0.57 | 1.1 | 0.0 | 183.062 | 0.546 | 0.0 | 60.692 | 0.562 | 11.53 |
| 9.01 | 52.82 | 0.306 | 0.79 | 1.1 | 0.0 | 172.614 | 0.579 | 0.0 | 51.82 | 0.6 | 13.48 |
| 9.02 | 45.886 | 0.296 | 0.77 | 1.1 | 0.0 | 155.02 | 0.645 | 0.0 | 44.886 | 0.671 | 15.74 |
| 9.03 | 40.788 | 0.306 | 0.89 | 1.1 | 0.0 | 133.294 | 0.75 | 0.0 | 39.788 | 0.785 | 18.24 |
| 9.04 | 33.65 | 0.408 | 4.02 | 1.1 | 0.0 | 82.475 | 1.212 | 0.0 | 32.65 | 1.28 | 24.97 |
| 9.05 | 26.92 | 0.408 | 8.04 | 1.1 | 0.0 | 65.98 | 1.516 | 0.0 | 25.92 | 1.623 | 30.9 |
| 9.06 | 23.249 | 0.438 | 9.47 | 1.1 | 0.0 | 53.08 | 1.884 | 0.0 | 22.249 | 2.041 | 36.17 |
| 9.07 | 20.19 | 0.479 | 10.91 | 1.1 | 0.0 | 42.15 | 2.372 | 0.0 | 19.19 | 2.604 | 42.12 |
| 9.08 | 19.374 | 0.479 | 11.60 | 1.1 | 0.0 | 40.447 | 2.472 | 0.0 | 18.374 | 2.725 | 43.6 |
| 9.09 | 19.578 | 0.489 | 12.34 | 1.1 | 0.0 | 40.037 | 2.498 | 0.0 | 18.578 | 2.75 | 43.52 |
| 9.10 | 20.394 | 0.459 | 12.67 | 1.1 | 0.0 | 44.431 | 2.251 | 0.0 | 19.394 | 2.468 | 41.17 |
| 9.11 | 20.598 | 0.449 | 12.70 | 1.1 | 0.0 | 45.875 | 2.18 | 0.0 | 19.598 | 2.389 | 40.52 |
| 9.12 | 20.7 | 0.449 | 12.70 | 1.1 | 0.0 | 46.102 | 2.169 | 0.0 | 19.7 | 2.376 | 40.35 |
| 9.13 | 20.802 | 0.449 | 12.70 | 1.1 | 0.0 | 46.33 | 2.158 | 0.0 | 19.802 | 2.363 | 40.18 |
| 9.14 | 20.904 | 0.438 | 12.71 | 1.1 | 0.0 | 47.726 | 2.095 | 0.0 | 19.904 | 2.293 | 39.68 |
| 9.15 | 20.802 | 0.418 | 12.76 | 1.1 | 0.0 | 49.766 | 2.009 | 0.0 | 19.802 | 2.201 | 39.23 |
| 9.16 | 20.802 | 0.398 | 12.80 | 1.1 | 0.0 | 52.266 | 1.913 | 0.0 | 19.802 | 2.096 | 38.59 |
| 9.17 | 21.006 | 0.326 | 12.81 | 1.1 | 0.0 | 64.436 | 1.552 | 0.0 | 20.006 | 1.698 | 35.79 |
| 9.18 | 21.108 | 0.265 | 12.82 | 1.1 | 0.0 | 79.653 | 1.255 | 0.0 | 20.108 | 1.373 | 33.29 |
| 9.19 | 21.21 | 0.245 | 12.81 | 1.1 | 0.0 | 86.571 | 1.155 | 0.0 | 20.21 | 1.263 | 32.32 |
| 9.20 | 21.21 | 0.224 | 12.81 | 1.1 | 0.0 | 94.688 | 1.056 | 0.0 | 20.21 | 1.155 | 31.4 |
| 9.21 | 21.21 | 0.173 | 12.81 | 1.1 | 0.0 | 122.601 | 0.816 | 0.0 | 20.21 | 0.892 | 28.95 |
| 9.22 | 21.108 | 0.143 | 12.73 | 1.1 | 0.0 | 147.608 | 0.677 | 0.0 | 20.108 | 0.741 | 27.46 |
| 9.23 | 21.21 | 0.143 | 12.71 | 1.1 | 0.0 | 148.322 | 0.674 | 0.0 | 20.21 | 0.738 | 27.34 |
| 9.24 | 21.21 | 0.143 | 12.70 | 1.1 | 0.0 | 148.322 | 0.674 | 0.0 | 20.21 | 0.738 | 27.34 |
| 9.25 | 21.006 | 0.143 | 12.70 | 1.1 | 0.0 | 146.895 | 0.681 | 0.0 | 20.006 | 0.746 | 27.59 |
| 9.26 | 21.21 | 0.143 | 12.65 | 1.1 | 0.0 | 148.322 | 0.674 | 0.0 | 20.21 | 0.738 | 27.34 |
| 9.27 | 21.108 | 0.153 | 12.75 | 1.1 | 0.0 | 137.961 | 0.725 | 0.0 | 20.108 | 0.794 | 28.02 |
| 9.28 | 21.006 | 0.143 | 12.74 | 1.1 | 0.0 | 146.895 | 0.681 | 0.0 | 20.006 | 0.746 | 27.59 |
| 9.29 | 21.006 | 0.143 | 12.75 | 1.1 | 0.0 | 146.895 | 0.681 | 0.0 | 20.006 | 0.746 | 27.59 |
| 9.30 | 21.21 | 0.143 | 12.74 | 1.1 | 0.0 | 148.322 | 0.674 | 0.0 | 20.21 | 0.738 | 27.34 |
| 9.31 | 21.312 | 0.143 | 12.74 | 1.1 | 0.0 | 149.035 | 0.671 | 0.0 | 20.312 | 0.734 | 27.22 |
| 9.32 | 21.414 | 0.143 | 12.70 | 1.1 | 0.0 | 149.748 | 0.668 | 0.0 | 20.414 | 0.731 | 27.1 |
| 9.33 | 21.312 | 0.143 | 12.63 | 1.1 | 0.0 | 149.035 | 0.671 | 0.0 | 20.312 | 0.735 | 27.22 |
| 9.34 | 21.414 | 0.143 | 12.60 | 1.1 | 0.0 | 149.748 | 0.668 | 0.0 | 20.414 | 0.731 | 27.1 |
| 9.35 | 21.414 | 0.153 | 12.58 | 1.1 | 0.0 | 139.961 | 0.714 | 0.0 | 20.414 | 0.782 | 27.65 |
| 9.36 | 21.414 | 0.153 | 12.59 | 1.1 | 0.0 | 139.961 | 0.714 | 0.0 | 20.414 | 0.782 | 27.65 |
| 9.37 | 21.414 | 0.153 | 12.60 | 1.2 | 0.0 | 139.961 | 0.714 | 0.0 | 20.414 | 0.782 | 27.65 |

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| | | | | | | | | | | | |
|-------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|-------|
| 9.38 | 21.516 | 0.153 | 12.60 | 1.1 | 0.0 | 140.627 | 0.711 | 0.0 | 20.516 | 0.778 | 27.53 |
| 9.39 | 21.618 | 0.153 | 12.59 | 1.2 | 0.0 | 141.294 | 0.708 | 0.0 | 20.618 | 0.774 | 27.41 |
| 9.40 | 21.618 | 0.153 | 12.58 | 1.1 | 0.0 | 141.294 | 0.708 | 0.0 | 20.618 | 0.774 | 27.41 |
| 9.41 | 21.72 | 0.153 | 12.57 | 1.2 | 0.0 | 141.961 | 0.704 | 0.0 | 20.72 | 0.77 | 27.29 |
| 9.42 | 21.72 | 0.163 | 12.56 | 1.2 | 0.0 | 133.252 | 0.75 | 0.0 | 20.72 | 0.821 | 27.82 |
| 9.43 | 21.822 | 0.163 | 12.57 | 1.2 | 0.0 | 133.877 | 0.747 | 0.0 | 20.822 | 0.817 | 27.7 |
| 9.44 | 21.924 | 0.163 | 12.57 | 1.2 | 0.0 | 134.503 | 0.743 | 0.0 | 20.924 | 0.813 | 27.58 |
| 9.45 | 21.924 | 0.173 | 12.57 | 1.2 | 0.0 | 126.728 | 0.789 | 0.0 | 20.924 | 0.863 | 28.09 |
| 9.46 | 21.924 | 0.173 | 12.57 | 1.2 | 0.0 | 126.728 | 0.789 | 0.0 | 20.924 | 0.863 | 28.09 |
| 9.47 | 22.026 | 0.173 | 12.56 | 1.2 | 0.0 | 127.318 | 0.785 | 0.0 | 21.026 | 0.858 | 27.97 |
| 9.48 | 21.924 | 0.173 | 12.52 | 1.2 | 0.0 | 126.728 | 0.789 | 0.0 | 20.924 | 0.863 | 28.09 |
| 9.49 | 21.822 | 0.173 | 12.48 | 1.2 | 0.0 | 126.139 | 0.793 | 0.0 | 20.822 | 0.867 | 28.22 |
| 9.50 | 21.822 | 0.173 | 12.45 | 1.2 | 0.0 | 126.139 | 0.793 | 0.0 | 20.822 | 0.867 | 28.22 |
| 9.51 | 21.618 | 0.173 | 12.43 | 1.2 | 0.0 | 124.96 | 0.8 | 0.0 | 20.618 | 0.876 | 28.47 |
| 9.52 | 21.618 | 0.184 | 12.44 | 1.2 | 0.0 | 117.489 | 0.851 | 0.0 | 20.618 | 0.932 | 29.02 |
| 9.53 | 21.72 | 0.184 | 12.44 | 1.2 | 0.0 | 118.043 | 0.847 | 0.0 | 20.72 | 0.928 | 28.89 |
| 9.54 | 21.72 | 0.173 | 12.44 | 1.2 | 0.0 | 125.549 | 0.797 | 0.0 | 20.72 | 0.872 | 28.35 |
| 9.55 | 21.72 | 0.173 | 12.43 | 1.2 | 0.0 | 125.549 | 0.797 | 0.0 | 20.72 | 0.872 | 28.35 |
| 9.56 | 21.822 | 0.173 | 12.45 | 1.2 | 0.0 | 126.139 | 0.793 | 0.0 | 20.822 | 0.868 | 28.22 |
| 9.57 | 21.822 | 0.173 | 12.44 | 1.2 | 0.0 | 126.139 | 0.793 | 0.0 | 20.822 | 0.868 | 28.22 |
| 9.58 | 21.822 | 0.163 | 12.42 | 1.2 | 0.0 | 133.877 | 0.747 | 0.0 | 20.822 | 0.818 | 27.71 |
| 9.59 | 21.822 | 0.163 | 12.44 | 1.2 | 0.0 | 133.877 | 0.747 | 0.0 | 20.822 | 0.818 | 27.71 |
| 9.60 | 21.822 | 0.163 | 12.42 | 1.2 | 0.0 | 133.877 | 0.747 | 0.0 | 20.822 | 0.818 | 27.71 |
| 9.61 | 21.72 | 0.163 | 12.45 | 1.2 | 0.0 | 133.252 | 0.75 | 0.0 | 20.72 | 0.822 | 27.84 |
| 9.62 | 21.72 | 0.163 | 12.49 | 1.2 | 0.0 | 133.252 | 0.75 | 0.0 | 20.72 | 0.822 | 27.84 |
| 9.63 | 21.822 | 0.153 | 12.52 | 1.2 | 0.0 | 142.627 | 0.701 | 0.0 | 20.822 | 0.768 | 27.19 |
| 9.64 | 21.924 | 0.153 | 12.56 | 1.2 | 0.0 | 143.294 | 0.698 | 0.0 | 20.924 | 0.764 | 27.07 |
| 9.65 | 22.026 | 0.153 | 12.56 | 1.2 | 0.0 | 143.961 | 0.695 | 0.0 | 21.026 | 0.76 | 26.95 |
| 9.66 | 22.127 | 0.153 | 12.57 | 1.2 | 0.0 | 144.621 | 0.691 | 0.0 | 21.127 | 0.757 | 26.83 |
| 9.67 | 22.127 | 0.153 | 12.57 | 1.2 | 0.0 | 144.621 | 0.691 | 0.0 | 21.127 | 0.757 | 26.83 |
| 9.68 | 22.229 | 0.153 | 12.59 | 1.2 | 0.0 | 145.288 | 0.688 | 0.0 | 21.229 | 0.753 | 26.72 |
| 9.69 | 22.229 | 0.163 | 12.64 | 1.2 | 0.0 | 136.374 | 0.733 | 0.0 | 21.229 | 0.802 | 27.24 |
| 9.70 | 22.331 | 0.153 | 12.69 | 1.2 | 0.0 | 145.954 | 0.685 | 0.0 | 21.331 | 0.749 | 26.6 |
| 9.71 | 22.535 | 0.163 | 12.74 | 1.2 | 0.0 | 138.252 | 0.723 | 0.0 | 21.535 | 0.791 | 26.89 |
| 9.72 | 22.739 | 0.153 | 12.79 | 1.2 | 0.0 | 148.621 | 0.673 | 0.0 | 21.739 | 0.735 | 26.14 |
| 9.73 | 22.943 | 0.153 | 12.81 | 1.2 | 0.0 | 149.954 | 0.667 | 0.0 | 21.943 | 0.728 | 25.92 |
| 9.74 | 22.841 | 0.153 | 12.80 | 1.2 | 0.0 | 149.288 | 0.67 | 0.0 | 21.841 | 0.731 | 26.03 |
| 9.75 | 23.249 | 0.163 | 12.94 | 1.2 | 0.0 | 142.632 | 0.701 | 0.0 | 22.249 | 0.764 | 26.1 |
| 9.76 | 23.453 | 0.163 | 13.03 | 1.2 | 0.0 | 143.883 | 0.695 | 0.0 | 22.453 | 0.757 | 25.88 |
| 9.77 | 23.555 | 0.163 | 13.08 | 1.2 | 0.0 | 144.509 | 0.692 | 0.0 | 22.555 | 0.754 | 25.77 |
| 9.78 | 23.555 | 0.163 | 13.09 | 1.2 | 0.0 | 144.509 | 0.692 | 0.0 | 22.555 | 0.754 | 25.77 |
| 9.79 | 23.453 | 0.163 | 13.07 | 1.2 | 0.0 | 143.883 | 0.695 | 0.0 | 22.453 | 0.757 | 25.88 |
| 9.80 | 23.045 | 0.173 | 13.07 | 1.2 | 0.0 | 133.208 | 0.751 | 0.0 | 22.045 | 0.82 | 26.82 |
| 9.81 | 22.739 | 0.173 | 13.00 | 1.2 | 0.0 | 131.439 | 0.761 | 0.0 | 21.739 | 0.832 | 27.16 |
| 9.82 | 22.229 | 0.163 | 12.97 | 1.2 | 0.0 | 136.374 | 0.733 | 0.0 | 21.229 | 0.803 | 27.25 |
| 9.83 | 22.127 | 0.163 | 12.98 | 1.2 | 0.0 | 135.748 | 0.737 | 0.0 | 21.127 | 0.808 | 27.37 |
| 9.84 | 22.127 | 0.163 | 13.00 | 1.2 | 0.0 | 135.748 | 0.737 | 0.0 | 21.127 | 0.808 | 27.37 |
| 9.85 | 21.924 | 0.153 | 12.96 | 1.2 | 0.0 | 143.294 | 0.698 | 0.0 | 20.924 | 0.766 | 27.08 |
| 9.86 | 21.924 | 0.153 | 12.96 | 1.2 | 0.0 | 143.294 | 0.698 | 0.0 | 20.924 | 0.766 | 27.08 |
| 9.87 | 21.924 | 0.153 | 12.96 | 1.2 | 0.0 | 143.294 | 0.698 | 0.0 | 20.924 | 0.766 | 27.09 |
| 9.88 | 21.72 | 0.112 | 13.46 | 1.2 | 0.0 | 193.929 | 0.516 | 0.0 | 20.72 | 0.567 | 24.94 |
| 9.89 | 21.72 | 0.122 | 13.46 | 1.2 | 0.0 | 178.033 | 0.562 | 0.0 | 20.72 | 0.617 | 25.56 |
| 9.90 | 21.72 | 0.122 | 13.41 | 1.2 | 0.0 | 178.033 | 0.562 | 0.0 | 20.72 | 0.617 | 25.56 |
| 9.91 | 21.72 | 0.122 | 13.37 | 1.2 | 0.0 | 178.033 | 0.562 | 0.0 | 20.72 | 0.617 | 25.56 |
| 9.92 | 21.618 | 0.122 | 13.24 | 1.2 | 0.0 | 177.197 | 0.564 | 0.0 | 20.618 | 0.621 | 25.68 |
| 9.93 | 21.618 | 0.133 | 13.29 | 1.2 | 0.0 | 162.541 | 0.615 | 0.0 | 20.618 | 0.677 | 26.33 |
| 9.94 | 21.822 | 0.133 | 13.31 | 1.2 | 0.0 | 164.075 | 0.609 | 0.0 | 20.822 | 0.67 | 26.1 |
| 9.95 | 21.822 | 0.133 | 13.34 | 1.2 | 0.0 | 164.075 | 0.609 | 0.0 | 20.822 | 0.67 | 26.1 |
| 9.96 | 21.924 | 0.133 | 13.30 | 1.2 | 0.0 | 164.842 | 0.607 | 0.0 | 20.924 | 0.666 | 25.98 |
| 9.97 | 21.924 | 0.133 | 13.23 | 1.2 | 0.0 | 164.842 | 0.607 | 0.0 | 20.924 | 0.667 | 25.98 |
| 9.98 | 21.924 | 0.143 | 13.14 | 1.2 | 0.0 | 153.315 | 0.652 | 0.0 | 20.924 | 0.717 | 26.55 |
| 9.99 | 21.618 | 0.153 | 12.96 | 1.2 | 0.0 | 141.294 | 0.708 | 0.0 | 20.618 | 0.795 | 27.63 |
| 10.00 | 21.414 | 0.153 | 12.95 | 1.2 | 0.0 | 139.961 | 0.714 | 0.0 | 20.414 | 0.803 | 27.88 |
| 10.01 | 21.312 | 0.143 | 12.94 | 1.2 | 0.0 | 149.035 | 0.671 | 0.0 | 20.312 | 0.755 | 27.44 |
| 10.02 | 21.21 | 0.133 | 12.92 | 1.2 | 0.0 | 159.474 | 0.627 | 0.0 | 20.21 | 0.706 | 26.98 |
| 10.03 | 21.21 | 0.133 | 12.90 | 1.2 | 0.0 | 159.474 | 0.627 | 0.0 | 20.21 | 0.706 | 26.99 |

Prova n. 8

| | | | | | | | | | | | |
|-------|--------|-------|-------|-----|-----|---------|-------|-----|--------|-------|-------|
| 10.04 | 21.21 | 0.133 | 12.86 | 1.2 | 0.0 | 159.474 | 0.627 | 0.0 | 20.21 | 0.706 | 26.99 |
| 10.05 | 21.312 | 0.143 | 12.86 | 1.2 | 0.0 | 149.035 | 0.671 | 0.0 | 20.312 | 0.755 | 27.45 |
| 10.06 | 21.312 | 0.143 | 12.86 | 1.2 | 0.0 | 149.035 | 0.671 | 0.0 | 20.312 | 0.755 | 27.45 |
| 10.07 | 21.312 | 0.143 | 12.86 | 1.2 | 0.0 | 149.035 | 0.671 | 0.0 | 20.312 | 0.756 | 27.45 |
| 10.08 | 21.312 | 0.143 | 12.85 | 1.2 | 0.0 | 149.035 | 0.671 | 0.0 | 20.312 | 0.756 | 27.45 |
| 10.09 | 21.312 | 0.143 | 12.84 | 1.2 | 0.0 | 149.035 | 0.671 | 0.0 | 20.312 | 0.756 | 27.45 |
| 10.10 | 21.516 | 0.153 | 12.85 | 1.2 | 0.0 | 140.627 | 0.711 | 0.0 | 20.516 | 0.8 | 27.76 |
| 10.11 | 21.618 | 0.153 | 12.84 | 1.2 | 0.0 | 141.294 | 0.708 | 0.0 | 20.618 | 0.796 | 27.64 |
| 10.12 | 21.618 | 0.163 | 12.85 | 1.2 | 0.0 | 132.626 | 0.754 | 0.0 | 20.618 | 0.848 | 28.18 |
| 10.13 | 21.618 | 0.163 | 12.84 | 1.2 | 0.0 | 132.626 | 0.754 | 0.0 | 20.618 | 0.848 | 28.18 |
| 10.14 | 21.618 | 0.173 | 12.83 | 1.2 | 0.0 | 124.96 | 0.8 | 0.0 | 20.618 | 0.9 | 28.71 |
| 10.15 | 21.618 | 0.173 | 12.82 | 1.2 | 0.0 | 124.96 | 0.8 | 0.0 | 20.618 | 0.9 | 28.71 |
| 10.16 | 21.618 | 0.173 | 12.79 | 1.2 | 0.0 | 124.96 | 0.8 | 0.0 | 20.618 | 0.901 | 28.71 |
| 10.17 | 21.618 | 0.173 | 12.77 | 1.2 | 0.0 | 124.96 | 0.8 | 0.0 | 20.618 | 0.901 | 28.71 |
| 10.18 | 21.618 | 0.173 | 12.76 | 1.2 | 0.0 | 124.96 | 0.8 | 0.0 | 20.618 | 0.901 | 28.71 |
| 10.19 | 21.618 | 0.173 | 12.77 | 1.2 | 0.0 | 124.96 | 0.8 | 0.0 | 20.618 | 0.901 | 28.71 |
| 10.20 | 21.72 | 0.173 | 12.76 | 1.2 | 0.0 | 125.549 | 0.797 | 0.0 | 20.72 | 0.896 | 28.59 |
| 10.21 | 21.72 | 0.173 | 12.73 | 1.2 | 0.0 | 125.549 | 0.797 | 0.0 | 20.72 | 0.896 | 28.59 |
| 10.22 | 21.72 | 0.173 | 12.72 | 1.2 | 0.0 | 125.549 | 0.797 | 0.0 | 20.72 | 0.896 | 28.59 |
| 10.23 | 21.72 | 0.173 | 12.70 | 1.2 | 0.0 | 125.549 | 0.797 | 0.0 | 20.72 | 0.897 | 28.59 |
| 10.24 | 21.72 | 0.173 | 12.69 | 1.2 | 0.0 | 125.549 | 0.797 | 0.0 | 20.72 | 0.897 | 28.59 |
| 10.25 | 21.72 | 0.173 | 12.67 | 1.2 | 0.0 | 125.549 | 0.797 | 0.0 | 20.72 | 0.897 | 28.59 |
| 10.26 | 21.618 | 0.173 | 12.64 | 1.2 | 0.0 | 124.96 | 0.8 | 0.0 | 20.618 | 0.902 | 28.72 |
| 10.27 | 21.618 | 0.173 | 12.61 | 1.2 | 0.0 | 124.96 | 0.8 | 0.0 | 20.618 | 0.902 | 28.72 |
| 10.28 | 21.516 | 0.173 | 12.60 | 1.2 | 0.0 | 124.37 | 0.804 | 0.0 | 20.516 | 0.907 | 28.85 |
| 10.29 | 21.516 | 0.173 | 12.58 | 1.2 | 0.0 | 124.37 | 0.804 | 0.0 | 20.516 | 0.907 | 28.85 |
| 10.30 | 21.516 | 0.173 | 12.58 | 1.2 | 0.0 | 124.37 | 0.804 | 0.0 | 20.516 | 0.907 | 28.85 |
| 10.31 | 21.516 | 0.173 | 12.58 | 1.3 | 0.0 | 124.37 | 0.804 | 0.0 | 20.516 | 0.907 | 28.85 |
| 10.32 | 21.516 | 0.173 | 12.57 | 1.2 | 0.0 | 124.37 | 0.804 | 0.0 | 20.516 | 0.907 | 28.86 |
| 10.33 | 21.516 | 0.173 | 12.60 | 1.3 | 0.0 | 124.37 | 0.804 | 0.0 | 20.516 | 0.907 | 28.86 |
| 10.34 | 21.618 | 0.173 | 12.62 | 1.3 | 0.0 | 124.96 | 0.8 | 0.0 | 20.618 | 0.903 | 28.73 |
| 10.35 | 21.618 | 0.173 | 12.63 | 1.3 | 0.0 | 124.96 | 0.8 | 0.0 | 20.618 | 0.903 | 28.73 |
| 10.36 | 21.618 | 0.173 | 12.64 | 1.3 | 0.0 | 124.96 | 0.8 | 0.0 | 20.618 | 0.903 | 28.73 |
| 10.37 | 21.72 | 0.173 | 12.64 | 1.3 | 0.0 | 125.549 | 0.797 | 0.0 | 20.72 | 0.898 | 28.6 |
| 10.38 | 21.72 | 0.173 | 12.68 | 1.3 | 0.0 | 125.549 | 0.797 | 0.0 | 20.72 | 0.898 | 28.61 |
| 10.39 | 21.822 | 0.173 | 12.69 | 1.3 | 0.0 | 126.139 | 0.793 | 0.0 | 20.822 | 0.894 | 28.48 |
| 10.40 | 21.822 | 0.173 | 12.70 | 1.3 | 0.0 | 126.139 | 0.793 | 0.0 | 20.822 | 0.894 | 28.48 |
| 10.41 | 21.822 | 0.163 | 12.68 | 1.3 | 0.0 | 133.877 | 0.747 | 0.0 | 20.822 | 0.842 | 27.96 |
| 10.42 | 21.72 | 0.163 | 12.67 | 1.3 | 0.0 | 133.252 | 0.75 | 0.0 | 20.72 | 0.847 | 28.09 |
| 10.43 | 21.822 | 0.163 | 12.69 | 1.3 | 0.0 | 133.877 | 0.747 | 0.0 | 20.822 | 0.842 | 27.96 |
| 10.44 | 21.924 | 0.163 | 12.73 | 1.3 | 0.0 | 134.503 | 0.743 | 0.0 | 20.924 | 0.838 | 27.84 |
| 10.45 | 21.924 | 0.163 | 12.80 | 1.3 | 0.0 | 134.503 | 0.743 | 0.0 | 20.924 | 0.838 | 27.84 |
| 10.46 | 22.026 | 0.163 | 12.88 | 1.3 | 0.0 | 135.129 | 0.74 | 0.0 | 21.026 | 0.834 | 27.72 |
| 10.47 | 22.127 | 0.163 | 12.98 | 1.3 | 0.0 | 135.748 | 0.737 | 0.0 | 21.127 | 0.83 | 27.6 |
| 10.48 | 22.433 | 0.163 | 13.12 | 1.3 | 0.0 | 137.626 | 0.727 | 0.0 | 21.433 | 0.817 | 27.24 |
| 10.49 | 23.045 | 0.163 | 13.65 | 1.3 | 0.0 | 141.38 | 0.707 | 0.0 | 22.045 | 0.793 | 26.54 |
| 10.50 | 24.371 | 0.153 | 14.65 | 1.3 | 0.0 | 159.288 | 0.628 | 0.0 | 23.371 | 0.699 | 24.64 |
| 10.51 | 31.713 | 0.163 | 17.27 | 1.3 | 0.0 | 194.558 | 0.514 | 0.0 | 30.713 | 0.558 | 19.19 |

Prova n. 8**STIMA PARAMETRI GEOTECNICI Nr.8****TERRENI COESIVI**Coesione non drenata (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Lunne & Eide | Sunda Relazione Sperimentale | Lunne T.- Kleven A. 1981 | Kjekstad. 1978 - Lunne, Robertson and Powell 1977 | Lunne, Robertson and Powell 1977 | Terzaghi |
|------------------|--------------------------|--------------------------|--------------|------------------------------|--------------------------|---|----------------------------------|----------|
| 0.86 | 21.583 | 16.98 | 1.04 | 1.41 | 1.43 | 1.26 | 1.13 | 1.08 |
| 1.12 | 49.945 | 36.27 | 2.40 | 2.55 | 3.32 | 2.93 | 2.62 | 2.50 |
| 2.67 | 25.251 | 22.891 | 1.20 | 1.58 | 1.66 | 1.46 | 1.31 | 1.26 |
| 2.94 | 42.659 | 37.526 | 2.03 | 2.29 | 2.81 | 2.48 | 2.22 | 2.13 |
| 3.54 | 25.868 | 21.518 | 1.22 | 1.59 | 1.68 | 1.48 | 1.33 | 1.29 |
| 5.00 | 27.426 | 23.515 | 1.28 | 1.65 | 1.77 | 1.56 | 1.40 | 1.37 |
| 7.00 | 21.817 | 19.452 | 1.00 | 1.35 | 1.37 | 1.21 | 1.08 | 1.09 |
| 8.00 | 25.373 | 22.702 | 1.15 | 1.51 | 1.59 | 1.40 | 1.26 | 1.27 |
| 8.84 | 19.966 | 19.521 | 0.88 | 1.22 | 1.22 | 1.08 | 0.96 | 1.00 |
| 9.10 | 55.008 | 40.972 | 2.57 | 2.63 | 3.55 | 3.13 | 2.80 | 2.75 |
| 10.51 | 22.844 | 21.849 | 1.01 | 1.35 | 1.39 | 1.23 | 1.10 | 1.14 |

Modulo Edometrico (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Mitchell & Gardner (1975) | Metodo generale del modulo edometrico | Buismann | Buismann Sanglerat |
|------------------|--------------------------|--------------------------|---------------------------|---------------------------------------|----------|--------------------|
| 0.86 | 21.583 | 16.98 | 53.96 | 43.17 | 64.75 | 64.75 |
| 1.12 | 49.945 | 36.27 | 124.86 | 99.89 | 149.83 | 74.92 |
| 2.67 | 25.251 | 22.891 | 63.13 | 50.50 | 75.75 | 75.75 |
| 2.94 | 42.659 | 37.526 | 106.65 | 85.32 | 127.98 | 127.98 |
| 3.54 | 25.868 | 21.518 | 64.67 | 51.74 | 77.60 | 77.60 |
| 5.00 | 27.426 | 23.515 | 68.57 | 54.85 | 82.28 | 82.28 |
| 7.00 | 21.817 | 19.452 | 54.54 | 43.63 | 65.45 | 65.45 |
| 8.00 | 25.373 | 22.702 | 63.43 | 50.75 | 76.12 | 76.12 |
| 8.84 | 19.966 | 19.521 | 99.83 | 42.06 | 119.80 | 59.90 |
| 9.10 | 55.008 | 40.972 | 137.52 | 110.01 | 165.02 | 82.51 |
| 10.51 | 22.844 | 21.849 | 57.11 | 45.69 | 68.53 | 68.53 |

Modulo di deformazione non drenato Eu (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Cancelli 1980 | Ladd 1977 (30) |
|------------------|--------------------------|--------------------------|---------------|----------------|
| 0.86 | 21.583 | 16.98 | 806.14 | 32.40 |
| 1.12 | 49.945 | 36.27 | 1865.46 | 75.00 |
| 2.67 | 25.251 | 22.891 | 932.60 | 37.80 |
| 2.94 | 42.659 | 37.526 | 1578.53 | 63.90 |
| 3.54 | 25.868 | 21.518 | 945.55 | 38.70 |
| 5.00 | 27.426 | 23.515 | 996.25 | 41.10 |
| 7.00 | 21.817 | 19.452 | 772.94 | 32.70 |
| 8.00 | 25.373 | 22.702 | 895.04 | 38.10 |
| 8.84 | 19.966 | 19.521 | 685.38 | 30.00 |
| 9.10 | 55.008 | 40.972 | 1995.28 | 82.50 |
| 10.51 | 22.844 | 21.849 | 782.82 | 34.20 |

Modulo di deformazione a taglio

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Modulo di deformazione a taglio (Kg/cm ²) |
|------------------|--------------------------|--------------------------|-----------------|---|
| 0.86 | 21.583 | 16.98 | Imai & Tomauchi | 182.94 |
| 1.12 | 49.945 | 36.27 | Imai & Tomauchi | 305.45 |
| 2.67 | 25.251 | 22.891 | Imai & Tomauchi | 201.35 |
| 2.94 | 42.659 | 37.526 | Imai & Tomauchi | 277.39 |
| 3.54 | 25.868 | 21.518 | Imai & Tomauchi | 204.34 |
| 5.00 | 27.426 | 23.515 | Imai & Tomauchi | 211.78 |
| 7.00 | 21.817 | 19.452 | Imai & Tomauchi | 184.15 |
| 8.00 | 25.373 | 22.702 | Imai & Tomauchi | 201.94 |
| 8.84 | 19.966 | 19.521 | Imai & Tomauchi | 174.44 |
| 9.10 | 55.008 | 40.972 | Imai & Tomauchi | 324.01 |
| 10.51 | 22.844 | 21.849 | Imai & Tomauchi | 189.39 |

Prova n. 8

Grado di sovraconsolidazione

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Stress-History |
|------------------|--------------------------|--------------------------|----------------|
| 0.86 | 21.583 | 16.98 | 5.84 |
| 1.12 | 49.945 | 36.27 | 5.83 |
| 2.67 | 25.251 | 22.891 | 1.54 |
| 2.94 | 42.659 | 37.526 | 1.76 |
| 3.54 | 25.868 | 21.518 | 0.92 |
| 5.00 | 27.426 | 23.515 | 0.74 |
| 7.00 | 21.817 | 19.452 | <0.5 |
| 8.00 | 25.373 | 22.702 | <0.5 |
| 8.84 | 19.966 | 19.521 | <0.5 |
| 9.10 | 55.008 | 40.972 | 0.71 |
| 10.51 | 22.844 | 21.849 | <0.5 |

Peso unità di volume

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|--|
| 0.86 | 21.583 | 16.98 | Meyerhof | 1.99 |
| 1.12 | 49.945 | 36.27 | Meyerhof | 2.13 |
| 2.67 | 25.251 | 22.891 | Meyerhof | 2.01 |
| 2.94 | 42.659 | 37.526 | Meyerhof | 2.10 |
| 3.54 | 25.868 | 21.518 | Meyerhof | 2.01 |
| 5.00 | 27.426 | 23.515 | Meyerhof | 2.02 |
| 7.00 | 21.817 | 19.452 | Meyerhof | 1.98 |
| 8.00 | 25.373 | 22.702 | Meyerhof | 2.00 |
| 8.84 | 19.966 | 19.521 | Meyerhof | 1.96 |
| 9.10 | 55.008 | 40.972 | Meyerhof | 2.14 |
| 10.51 | 22.844 | 21.849 | Meyerhof | 1.98 |

Peso unità di volume saturo

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume saturo (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|---|
| 0.86 | 21.583 | 16.98 | Meyerhof | 2.07 |
| 1.12 | 49.945 | 36.27 | Meyerhof | 2.21 |
| 2.67 | 25.251 | 22.891 | Meyerhof | 2.09 |
| 2.94 | 42.659 | 37.526 | Meyerhof | 2.18 |
| 3.54 | 25.868 | 21.518 | Meyerhof | 2.09 |
| 5.00 | 27.426 | 23.515 | Meyerhof | 2.10 |
| 7.00 | 21.817 | 19.452 | Meyerhof | 2.06 |
| 8.00 | 25.373 | 22.702 | Meyerhof | 2.08 |
| 8.84 | 19.966 | 19.521 | Meyerhof | 2.04 |
| 9.10 | 55.008 | 40.972 | Meyerhof | 2.22 |
| 10.51 | 22.844 | 21.849 | Meyerhof | 2.06 |

TERRENI INCOERENTI

Densità relativa (%)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Baldi 1978 - Schmertman n 1976 | Schmertman n | Harman | Lancellotta 1983 | Jamiolkowski 1985 |
|------------------|--------------------------|--------------------------|--------------------------------|--------------|--------|------------------|-------------------|
| 0.86 | 21.583 | 16.98 | 57.18 | 80.63 | 78.33 | 57.93 | 93.65 |
| 1.12 | 49.945 | 36.27 | 69.08 | 88.73 | 86.94 | 69.94 | 93.61 |
| 2.67 | 25.251 | 22.891 | 40.46 | 46.29 | 47.89 | 41.08 | 55.44 |
| 2.94 | 42.659 | 37.526 | 49.79 | 54.93 | 56.47 | 50.48 | 59.23 |
| 3.54 | 25.868 | 21.518 | 33.51 | 32.71 | 35.78 | 34.06 | 40.72 |
| 5.00 | 27.426 | 23.515 | 31.28 | 27.48 | 31.2 | 31.81 | 34.54 |
| 7.00 | 21.817 | 19.452 | 19.96 | 10 | 15.2 | 20.4 | 18.29 |
| 8.00 | 25.373 | 22.702 | 21.1 | 9.55 | 15.04 | 21.55 | 16.25 |
| 8.84 | 19.966 | 19.521 | < 5 | < 5 | 5 | 13.03 | 6.07 |
| 9.10 | 55.008 | 40.972 | 40.55 | 33.05 | 37.32 | 41.16 | 33.29 |
| 10.51 | 22.844 | 21.849 | < 5 | < 5 | 5 | 14.69 | 5.54 |

Prova n. 8

Angolo di resistenza al taglio (°)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Durgunou glu-Mitchell 1973 | Caquot | Koppejan | De Beer | Schmertmann | Robertson & Campanella 1983 | Herminier | Meyerhof 1951 |
|------------------|--------------------------|--------------------------|----------------------------|--------|----------|---------|-------------|-----------------------------|-----------|---------------|
| 0.86 | 21.583 | 16.98 | 40.19 | 37.21 | 34.59 | 32.2 | 39.29 | 45 | 35.37 | 26.69 |
| 1.12 | 49.945 | 36.27 | 40.43 | 37.2 | 34.58 | 32.19 | 40.42 | 45 | 35.64 | 39.43 |
| 2.67 | 25.251 | 22.891 | 34.23 | 30.59 | 27.64 | 25.86 | 34.48 | 38.45 | 25.6 | 28.34 |
| 2.94 | 42.659 | 37.526 | 34.99 | 31.25 | 28.33 | 26.48 | 35.69 | 39.19 | 26.28 | 36.15 |
| 3.54 | 25.868 | 21.518 | 31.93 | 28.05 | 24.97 | 23.41 | 32.58 | 35.44 | 23.85 | 28.61 |
| 5.00 | 27.426 | 23.515 | 30.98 | 26.98 | 23.84 | 22.38 | 31.85 | 34.1 | 23.33 | 29.31 |
| 7.00 | 21.817 | 19.452 | 28.36 | 24.16 | 20.89 | 19.68 | 29.4 | 30.37 | 22.35 | 26.8 |
| 8.00 | 25.373 | 22.702 | 28.08 | 23.81 | 20.52 | 19.35 | 29.34 | 29.88 | 22.27 | 28.39 |
| 8.84 | 19.966 | 19.521 | 26.41 | 22.05 | 18.67 | 17.66 | 28.7 | 26.85 | 21.91 | 25.96 |
| 9.10 | 55.008 | 40.972 | 30.99 | 26.76 | 23.61 | 22.18 | 32.63 | 33.82 | 23.27 | 41.7 |
| 10.51 | 22.844 | 21.849 | 26.37 | 21.96 | 18.57 | 17.57 | 28.7 | 26.68 | 21.9 | 27.26 |

Modulo di Young (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Schmertmann | Robertson & Campanella (1983) | ISOPT-1 1988 Ey(50) |
|------------------|--------------------------|--------------------------|-------------|-------------------------------|---------------------|
| 0.86 | 21.583 | 16.98 | 53.96 | 43.17 | 136.50 |
| 1.12 | 49.945 | 36.27 | 124.86 | 99.89 | 267.33 |
| 2.67 | 25.251 | 22.891 | 63.13 | 50.50 | 263.75 |
| 2.94 | 42.659 | 37.526 | 106.65 | 85.32 | 401.35 |
| 3.54 | 25.868 | 21.518 | 64.67 | 51.74 | 312.35 |
| 5.00 | 27.426 | 23.515 | 68.57 | 54.85 | 348.38 |
| 7.00 | 21.817 | 19.452 | 54.54 | 43.63 | 322.89 |
| 8.00 | 25.373 | 22.702 | 63.43 | 50.75 | 376.89 |
| 8.84 | 19.966 | 19.521 | 49.91 | 39.93 | 307.48 |
| 9.10 | 55.008 | 40.972 | 137.52 | 110.02 | 661.97 |
| 10.51 | 22.844 | 21.849 | 57.11 | 45.69 | 351.80 |

Modulo Edometrico (Kg/cm²)

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Robertson & Campanella da Schmertmann | Lunne-Christoffersen 1983 - Robertson and Powell 1997 | Kulhawy-Mayne 1990 | Mitchell & Gardner 1975 | Buisman - Sanglerat |
|------------------|--------------------------|--------------------------|---------------------------------------|---|--------------------|-------------------------|---------------------|
| 0.86 | 21.583 | 16.98 | 65.35 | 84.66 | 169.10 | 43.17 | 107.92 |
| 1.12 | 49.945 | 36.27 | 73.93 | 195.92 | 402.15 | 99.89 | 74.92 |
| 2.67 | 25.251 | 22.891 | 41.79 | 99.05 | 196.92 | 50.50 | 126.25 |
| 2.94 | 42.659 | 37.526 | 51.28 | 167.34 | 339.03 | 85.32 | 127.98 |
| 3.54 | 25.868 | 21.518 | 34.26 | 101.47 | 199.77 | 51.74 | 129.34 |
| 5.00 | 27.426 | 23.515 | 32.59 | 107.58 | 210.93 | 54.85 | 137.13 |
| 7.00 | 21.817 | 19.452 | 22.66 | 85.58 | 161.80 | 43.63 | 109.08 |
| 8.00 | 25.373 | 22.702 | 25.92 | 99.53 | 188.66 | 50.75 | 126.86 |
| 8.84 | 19.966 | 19.521 | 24.31 | 78.32 | 142.53 | 39.93 | 99.83 |
| 9.10 | 55.008 | 40.972 | 48.83 | 215.78 | 430.71 | 93.51 | 82.51 |
| 10.51 | 22.844 | 21.849 | 27.67 | 89.61 | 163.97 | 45.69 | 114.22 |

Modulo di deformazione a taglio

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | G (Kg/cm ²) |
|------------------|--------------------------|--------------------------|-----------------|-------------------------|
| 0.86 | 21.583 | 16.98 | Imai & Tomauchi | 182.94 |
| 1.12 | 49.945 | 36.27 | Imai & Tomauchi | 305.45 |
| 2.67 | 25.251 | 22.891 | Imai & Tomauchi | 201.35 |
| 2.94 | 42.659 | 37.526 | Imai & Tomauchi | 277.39 |
| 3.54 | 25.868 | 21.518 | Imai & Tomauchi | 204.34 |
| 5.00 | 27.426 | 23.515 | Imai & Tomauchi | 211.78 |
| 7.00 | 21.817 | 19.452 | Imai & Tomauchi | 184.15 |
| 8.00 | 25.373 | 22.702 | Imai & Tomauchi | 201.94 |
| 8.84 | 19.966 | 19.521 | Imai & Tomauchi | 174.44 |
| 9.10 | 55.008 | 40.972 | Imai & Tomauchi | 324.01 |
| 10.51 | 22.844 | 21.849 | Imai & Tomauchi | 189.39 |

Prova n. 8

Grado di sovraconsolidazione

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Stress-History | Piacentini Righi 1978 | Larsson 1991 S.G.I. | Ladd e Foot 1977 |
|------------------|--------------------------|--------------------------|----------------|-----------------------|---------------------|------------------|
| 0.86 | 21.583 | 16.98 | 5.84 | >9 | 0.72 | >9 |
| 1.12 | 49.945 | 36.27 | 5.83 | >9 | 0.7 | >9 |
| 2.67 | 25.251 | 22.891 | 1.54 | >9 | 1.85 | >9 |
| 2.94 | 42.659 | 37.526 | 1.76 | >9 | 1.61 | >9 |
| 3.54 | 25.868 | 21.518 | 0.92 | >9 | <0.5 | >9 |
| 5.00 | 27.426 | 23.515 | 0.74 | >9 | <0.5 | 8.86 |
| 7.00 | 21.817 | 19.452 | <0.5 | >9 | <0.5 | 4.22 |
| 8.00 | 25.373 | 22.702 | <0.5 | >9 | <0.5 | 3.84 |
| 8.84 | 19.966 | 19.521 | <0.5 | >9 | <0.5 | 2.38 |
| 9.10 | 55.008 | 40.972 | 0.71 | >9 | <0.5 | 8.37 |
| 10.51 | 22.844 | 21.849 | <0.5 | >9 | <0.5 | 2.32 |

Modulo di reazione Ko

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Ko |
|------------------|--------------------------|--------------------------|------------------------|------|
| 0.86 | 21.583 | 16.98 | Kulhawy & Mayne (1990) | 1.10 |
| 1.12 | 49.945 | 36.27 | Kulhawy & Mayne (1990) | 1.10 |
| 2.67 | 25.251 | 22.891 | Kulhawy & Mayne (1990) | 0.46 |
| 2.94 | 42.659 | 37.526 | Kulhawy & Mayne (1990) | 0.51 |
| 3.54 | 25.868 | 21.518 | Kulhawy & Mayne (1990) | 0.33 |
| 5.00 | 27.426 | 23.515 | Kulhawy & Mayne (1990) | 0.29 |
| 7.00 | 21.817 | 19.452 | Kulhawy & Mayne (1990) | 0.00 |
| 8.00 | 25.373 | 22.702 | Kulhawy & Mayne (1990) | 0.00 |
| 8.84 | 19.966 | 19.521 | Kulhawy & Mayne (1990) | 0.00 |
| 9.10 | 55.008 | 40.972 | Kulhawy & Mayne (1990) | 0.28 |
| 10.51 | 22.844 | 21.849 | Kulhawy & Mayne (1990) | 0.00 |

Fattori di compressibilità C Crm

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | C | Crm |
|------------------|--------------------------|--------------------------|---------|---------|
| 0.86 | 21.583 | 16.98 | 0.12862 | 0.01672 |
| 1.12 | 49.945 | 36.27 | 0.10571 | 0.01374 |
| 2.67 | 25.251 | 22.891 | 0.11967 | 0.01556 |
| 2.94 | 42.659 | 37.526 | 0.10993 | 0.01429 |
| 3.54 | 25.868 | 21.518 | 0.11841 | 0.01539 |
| 5.00 | 27.426 | 23.515 | 0.11549 | 0.01501 |
| 7.00 | 21.817 | 19.452 | 0.12796 | 0.01664 |
| 8.00 | 25.373 | 22.702 | 0.11942 | 0.01552 |
| 8.84 | 19.966 | 19.521 | 0.13361 | 0.01737 |
| 9.10 | 55.008 | 40.972 | 0.10344 | 0.01345 |
| 10.51 | 22.844 | 21.849 | 0.12522 | 0.01628 |

Peso unità di volume

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|--|
| 0.86 | 21.583 | 16.98 | Meyerhof | 1.80 |
| 1.12 | 49.945 | 36.27 | Meyerhof | 1.80 |
| 2.67 | 25.251 | 22.891 | Meyerhof | 1.80 |
| 2.94 | 42.659 | 37.526 | Meyerhof | 1.80 |
| 3.54 | 25.868 | 21.518 | Meyerhof | 1.80 |
| 5.00 | 27.426 | 23.515 | Meyerhof | 1.80 |
| 7.00 | 21.817 | 19.452 | Meyerhof | 1.80 |
| 8.00 | 25.373 | 22.702 | Meyerhof | 1.80 |
| 8.84 | 19.966 | 19.521 | Meyerhof | 1.80 |
| 9.10 | 55.008 | 40.972 | Meyerhof | 1.80 |
| 10.51 | 22.844 | 21.849 | Meyerhof | 1.80 |

Prova n. 8

Peso unità di volume saturo

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Peso unità di volume saturo (t/m ³) |
|------------------|--------------------------|--------------------------|--------------|---|
| 0.86 | 21.583 | 16.98 | Meyerhof | 2.10 |
| 1.12 | 49.945 | 36.27 | Meyerhof | 2.10 |
| 2.67 | 25.251 | 22.891 | Meyerhof | 2.10 |
| 2.94 | 42.659 | 37.526 | Meyerhof | 2.10 |
| 3.54 | 25.868 | 21.518 | Meyerhof | 2.10 |
| 5.00 | 27.426 | 23.515 | Meyerhof | 2.10 |
| 7.00 | 21.817 | 19.452 | Meyerhof | 2.10 |
| 8.00 | 25.373 | 22.702 | Meyerhof | 2.10 |
| 8.84 | 19.966 | 19.521 | Meyerhof | 2.10 |
| 9.10 | 55.008 | 40.972 | Meyerhof | 2.10 |
| 10.51 | 22.844 | 21.849 | Meyerhof | 2.10 |

Liquefazione - Accelerazione sismica massima (g)=0

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Fattore di sicurezza a liquefazione |
|------------------|--------------------------|--------------------------|------------------------|-------------------------------------|
| 0.86 | 21.583 | 16.98 | Robertson & Wride 1997 | 0 |
| 1.12 | 49.945 | 36.27 | Robertson & Wride 1997 | 0 |
| 2.67 | 25.251 | 22.891 | Robertson & Wride 1997 | 0 |
| 2.94 | 42.659 | 37.526 | Robertson & Wride 1997 | 0 |
| 3.54 | 25.868 | 21.518 | Robertson & Wride 1997 | 0 |
| 5.00 | 27.426 | 23.515 | Robertson & Wride 1997 | 0 |
| 7.00 | 21.817 | 19.452 | Robertson & Wride 1997 | 0 |
| 8.00 | 25.373 | 22.702 | Robertson & Wride 1997 | 0 |
| 8.84 | 19.966 | 19.521 | Robertson & Wride 1997 | 0 |
| 9.10 | 55.008 | 40.972 | Robertson & Wride 1997 | 0 |
| 10.51 | 22.844 | 21.849 | Robertson & Wride 1997 | 0 |

Permeabilità

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Permeabilità (cm/s) |
|------------------|--------------------------|--------------------------|-----------------------|---------------------|
| 0.86 | 21.583 | 16.98 | Piacentini-Righi 1988 | 1E-11 |
| 1.12 | 49.945 | 36.27 | Piacentini-Righi 1988 | 1E-11 |
| 2.67 | 25.251 | 22.891 | Piacentini-Righi 1988 | 1E-11 |
| 2.94 | 42.659 | 37.526 | Piacentini-Righi 1988 | 1E-11 |
| 3.54 | 25.868 | 21.518 | Piacentini-Righi 1988 | 1E-11 |
| 5.00 | 27.426 | 23.515 | Piacentini-Righi 1988 | 1E-11 |
| 7.00 | 21.817 | 19.452 | Piacentini-Righi 1988 | 1E-11 |
| 8.00 | 25.373 | 22.702 | Piacentini-Righi 1988 | 1E-11 |
| 8.84 | 19.966 | 19.521 | Piacentini-Righi 1988 | 1E-11 |
| 9.10 | 55.008 | 40.972 | Piacentini-Righi 1988 | 1E-11 |
| 10.51 | 22.844 | 21.849 | Piacentini-Righi 1988 | 1E-11 |

Coefficiente di consolidazione

| Prof. Strato (m) | qc (Kg/cm ²) | fs (Kg/cm ²) | Correlazione | Coefficiente di consolidazione (cm ² /s) |
|------------------|--------------------------|--------------------------|-----------------------|---|
| 0.86 | 21.583 | 16.98 | Piacentini-Righi 1988 | 6.4749E-07 |
| 1.12 | 49.945 | 36.27 | Piacentini-Righi 1988 | 1.49835E-06 |
| 2.67 | 25.251 | 22.891 | Piacentini-Righi 1988 | 7.5753E-07 |
| 2.94 | 42.659 | 37.526 | Piacentini-Righi 1988 | 1.27977E-06 |
| 3.54 | 25.868 | 21.518 | Piacentini-Righi 1988 | 7.760401E-07 |
| 5.00 | 27.426 | 23.515 | Piacentini-Righi 1988 | 8.2278E-07 |
| 7.00 | 21.817 | 19.452 | Piacentini-Righi 1988 | 6.5451E-07 |
| 8.00 | 25.373 | 22.702 | Piacentini-Righi 1988 | 7.611899E-07 |
| 8.84 | 19.966 | 19.521 | Piacentini-Righi 1988 | 5.9898E-07 |
| 9.10 | 55.008 | 40.972 | Piacentini-Righi 1988 | 1.65024E-06 |
| 10.51 | 22.844 | 21.849 | Piacentini-Righi 1988 | 6.853199E-07 |