

TEACHERS

Iacopo Sagliano. Born in Lucca (Italy) in 1991, M.Sc. in Exploration and Applied Geophysics at the University of Pisa. He worked for several years in the UK in the field of near-surface geophysics specialising in diagnostics of structures and soils. He returned to Italy where he worked for a surveying company in Milan. He is currently employed at MoHo s.r.l. as a Data Analyst, and deals with software development for data analysis and customer assistance in geophysical data analysis/processing procedures.

Silvia Castellaro. Born in Venice (Italy) in 1975, M.Sc. in Geophysics, M.Sc. in Civil Engineering, Ph.D in Earth Sciences. Professor at the Department of Physics and Astronomy of the University of Bologna (Italy), where she teaches General Physics, Exploration Geophysics, Engineering Seismology. Her current main interests of research are the dynamic characterization of soils and structures and the use of the modal frequencies to assess some intrinsic properties of different types of structures (building, trees, geological structures...). She is author of about 60 papers on international peer-reviewed scientific journals.

REGISTRATION

To register, please fill in [this form](#). The registration is completed once the payment has been received. **The registration fee is 55 € (EUR). 22% VAT tax applies only to EU residents without a VAT number.** If you are a EU citizen and do not have a VAT number, please email us at info@moho.world before making the payment. Payment can be made with credit card on <https://moho.world/en/payments/> or wire transfer

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For further information, please visit our website <http://moho.world/en/courses/> or contact info@moho.world.

ONLINE PLATFORM

The webinar will be provided on [Zoom](#).

In order to facilitate the course of the seminar, participants are kindly asked to “rename” themselves with their own name once they have logged in.

Participants are invited to keep their webcam on if possible. It will help us to get immediate feedback and makes interaction more enjoyable.

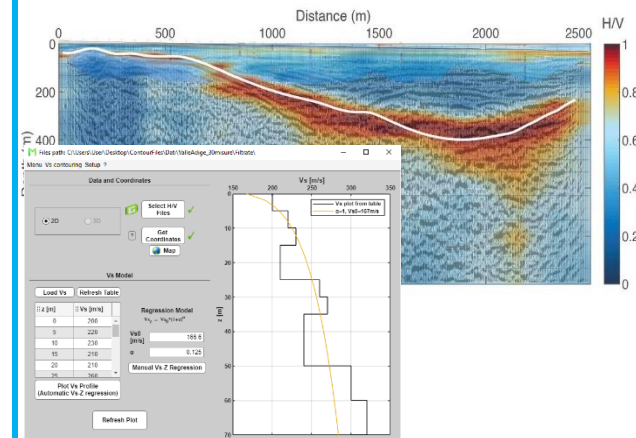
COURSE TIMING

Depending on the participant’s time zone, the webinar can be attended alternatively on:

- **Thu., June 29th, 2023 (UTC afternoon time)**
 - UTC time: 2 pm - 5.30 pm
 - Rome time: 4 pm - 7.30 pm
 - New York time: 10 am - 1.30 pm
 - Los Angeles time: 7 am - 10.30 am
- **Wed., July 12th, 2023 (UTC morning time)**
 - UTC time: 7 am - 10:30 am
 - Rome time: 9 am - 12:30 pm
 - New Delhi time: 12:30 pm - 4 pm
 - Beijing time: 3 pm - 6.30 pm

H/V AND V_s CONTOUR

Online webinar



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Thursday, June 29th 2023
(UTC afternoon time)

or
Wednesday, July 12th 2023
(UTC morning time)

INTRODUCTION

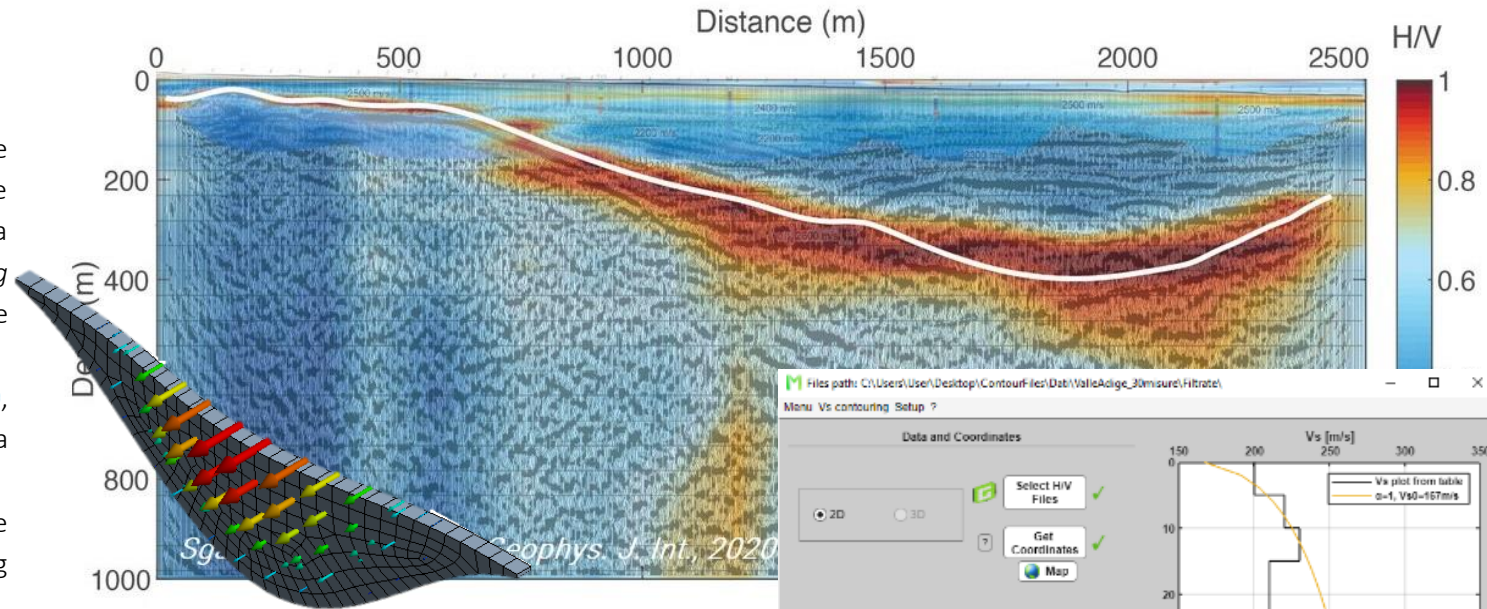
Acquiring microtremor data is today standard practice and often many tests relating to the same area are available. In this seminar we will look at how these data can be interpreted and presented through *contouring* procedures in a way that is concise, but at the same time informative and understandable.

For this purpose, we will use the new software **HeeVee**, which works in cascade with *Griffa* traditional data analysis.

We will discuss the effect of different possible mathematical functions that can be used in creating contour plots. Moving from the frequency domain, typical of H/V curves, to the depth domain, which is our goal, requires an estimation of the Vs profiles. We will see how to deal with the knowledge or lack of knowledge of these values. We will apply simplified gradients or real Vs profiles. The latter can also be contoured separately. We will examine the effect of velocity inversions, impedance contrasts, and we will point out the limits of interpretation in terms of H/V, at which point one must move towards 2D resonance interpretations.

We will focus on several practical examples relating to the mapping of:

- buried bedrock morphologies
- high impedance seismic reflectors (e.g., gravel)
- low impedance seismic reflectors (e.g., clay-sand alternations)
- landslides
- debris covers on glaciers (rock glaciers)



COURSE CONTENTS

First part (2h)

Contour of the H/V data: applicability, meaning, underlying hypotheses, interpretative aspects. Examples of contours with the **HeeVee** software.

10 min coffee break

Second part (1h20min)

Contour of the Vs data.

When H/V doesn't work: authentic 2D resonances, how to recognize them and deal with them with the **HeeVee** software. How to infer Vs in these cases. Final discussion.

