

Incontro su Geoscienze e Rischi Naturali
Potenza 4-5 Marzo 2009

Marco Mucciarelli

**Reti simometriche
ed accelerometriche**

Rete sismica a larga banda BA (codice internazionale IRIS)

<http://www.unibas.it/utenti/mucciarelli/network/network.html>

Mozilla Firefox

<http://www.unibas.it/utenti/mucciarelli/network/network.html>

Seismic Network of Basilicata University

Two Broad Band station, equipped with STS-2 seismometers are installed in Potenza Campus and in Matera, at ASI facilities.

The Matera station is linked to [GEOFON](#), while Potenza will be linked to MEDNET.

To view the last 24 hours of recording at Matera (BA-MATE), click [here](#).

To view and download data after an event recorded at Potenza (BA-PZUN) click [here](#).

To request off-line data, write to marco.mucciarelli@unibas.it



Rete Sismica dell'Università della Basilicata

Due stazioni larga banda, equipaggiate con sismometri STS-2 sono installate presso il campus di Potenza ed a Matera presso l'ASI.

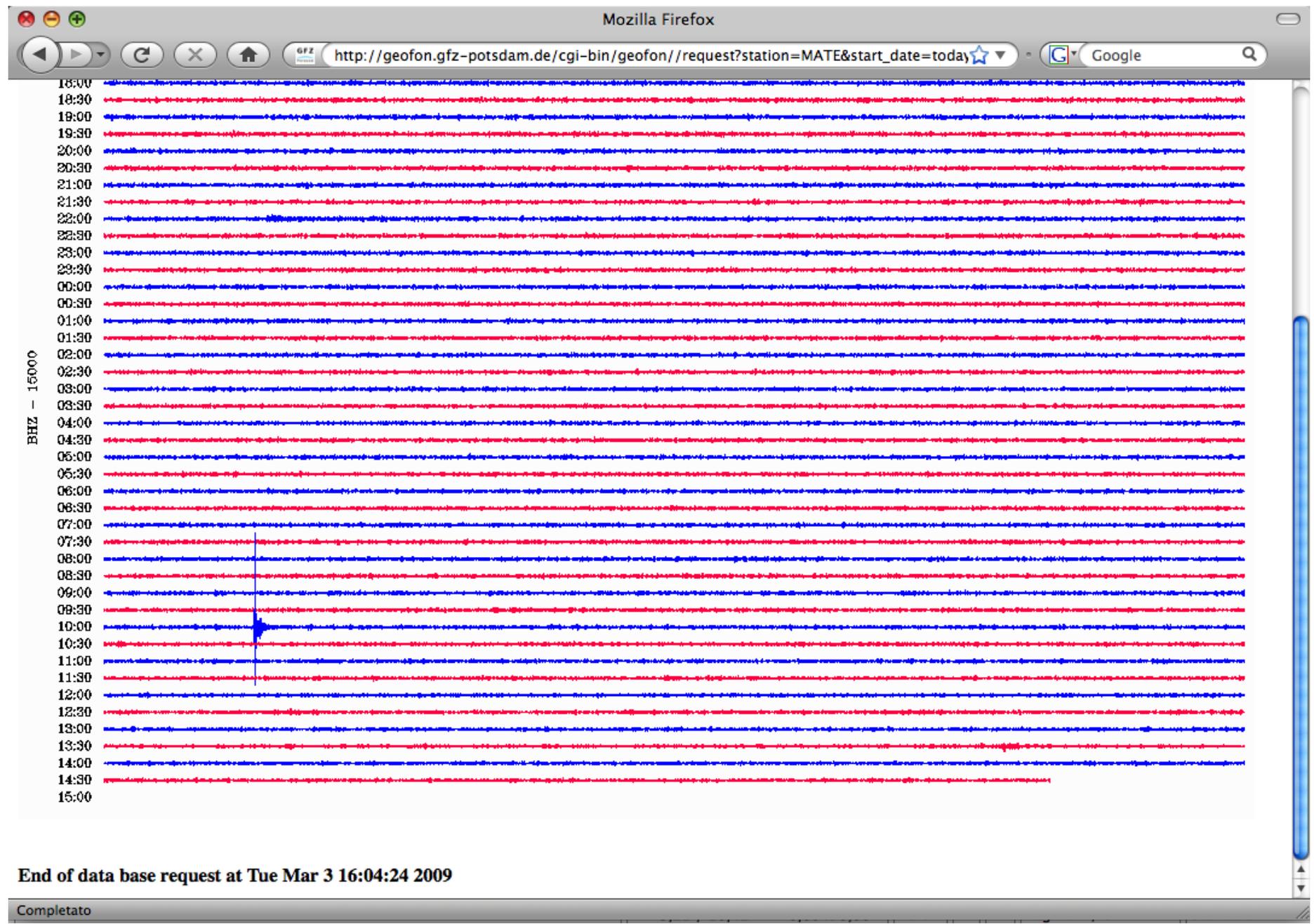
La stazione di Matera è collegata alla rete [GEOFON](#), mentre Potenza è connessa alla rete MEDNET gestita da INGV.

Per vedere le ultime 24 ore di registrazioni a Matera [cliccare qui](#)

Per vedere e scaricare le tracce dopo un evento registrato a Potenza [cliccare qui](#)

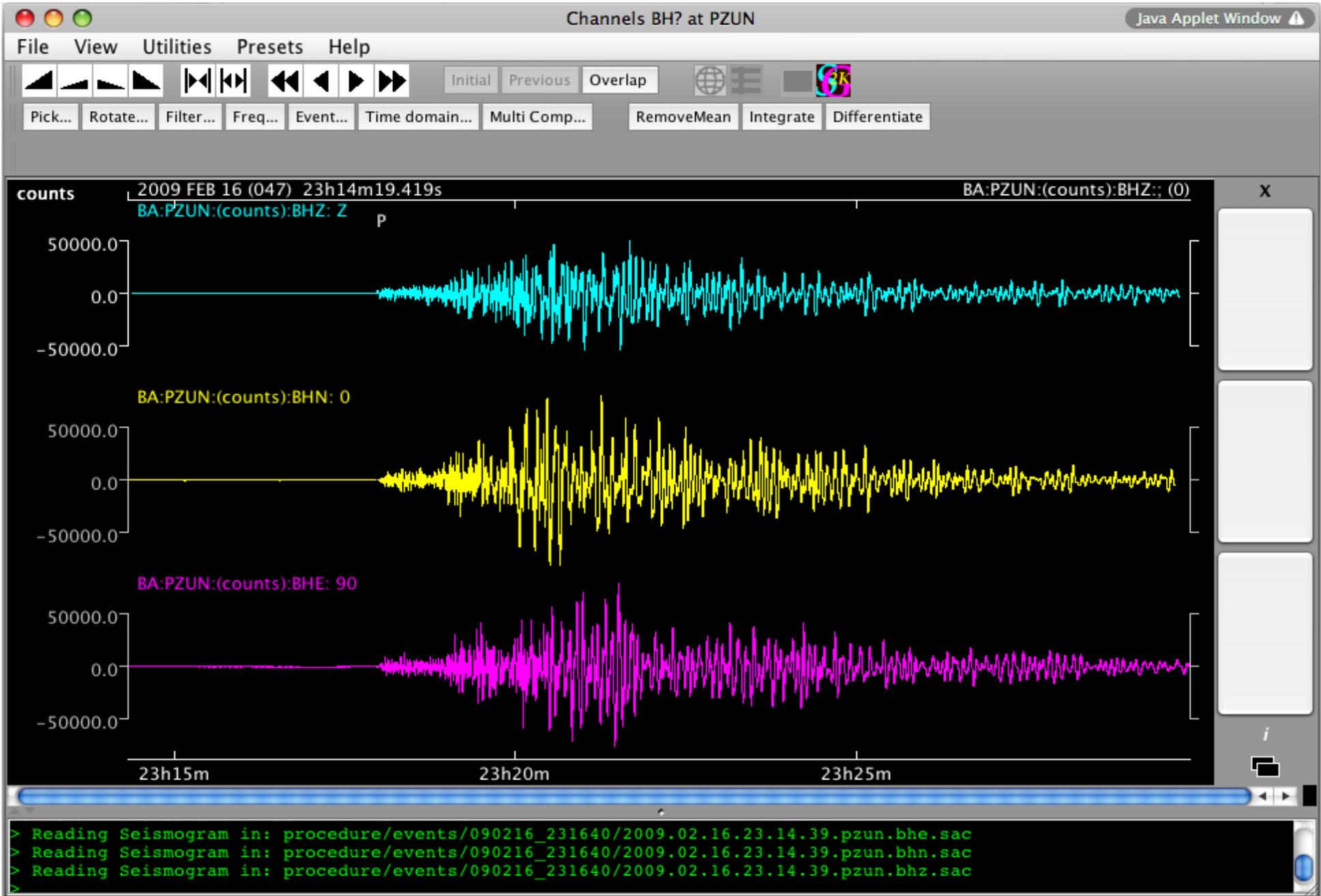
Per richiedere i dati fuori linea scrivere a marco.mucciarelli@unibas.it

Completato





Mediterranean Very Broadband Seismographic Network



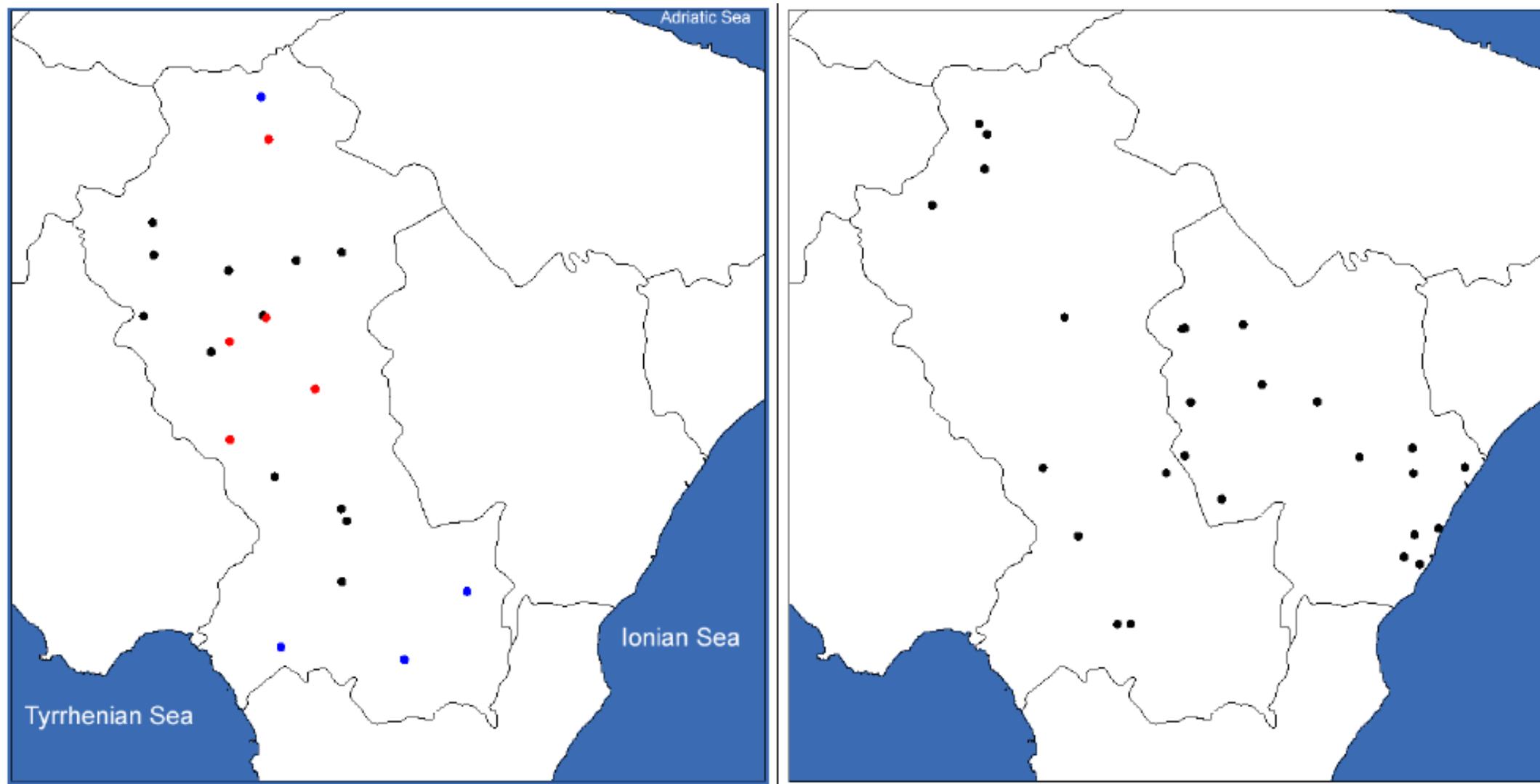


Figure 1
The accelerometric networks in Basilicata. On the left, the permanent stations (Red = University-IMAA, Black = Province, Blue = Province to be installed); on the right, the University-IMAA temporary stations.

MICROZONAZIONE SISMICA Regione Basilicata - Mozilla Firefox

File Modifica Visualizza Cronologia Segnalibri Strumenti ?

http://www.crisbasilicata.it/microzonazione/home.html

MICROZONAZIONE SISMICA Regione Basilicata

[Documentazione](#)

Eventi sismici registrati nel Comune di PESCOPAGANO

21 Aprile 2005		
23 Aprile 2005		
29 Aprile 2005		
3 Maggio 2005		
6 Maggio 2005 16:30		
6 Maggio 2005 16:33		2 Giugno 2005
8 Maggio 2005 13:30		3 Giugno 2005
8 Maggio 2005 13:36		9 Giugno 2005
10 Maggio 2005		20 Giugno 2005
12 Maggio 2005		18 Giugno 2005

Completato

PZ_N.png - Mozilla Firefox

File Modifica Visualizza Cronologia Segnalibri Strumenti ?

http://www.crisbasilicata.it/microzonazione/PZ_N.html

Provincia di Potenza (zona nord)

- Comuni non microzonati
- Comuni in cui la microzonazione è in corso
- Comuni parzialmente microzonati
- Comuni microzonati

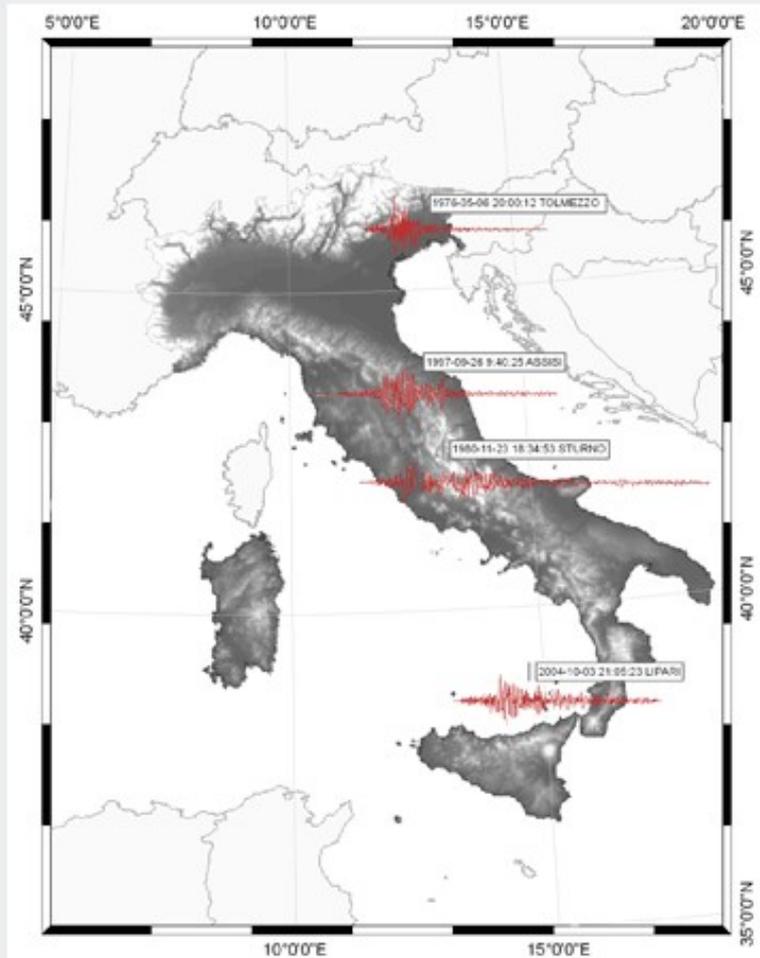
Completato



Istituto Nazionale
di Geofisica
e Vulcanologia



Beta version



News



2008, 23 December (M. 5.1)

PARMA EARTHQUAKE DATA

- [Interactive Database](#)
- [User Manual \(PDF, 1.8M\)](#)
- [Disclaimer](#)
- [Send Comments](#)

The Stability of the Horizontal-to-Vertical Spectral Ratio of Triggered Noise and Earthquake Recordings

by Marco Mucciarelli, Maria Rosaria Gallipoli, and Massimiliano Arcieri

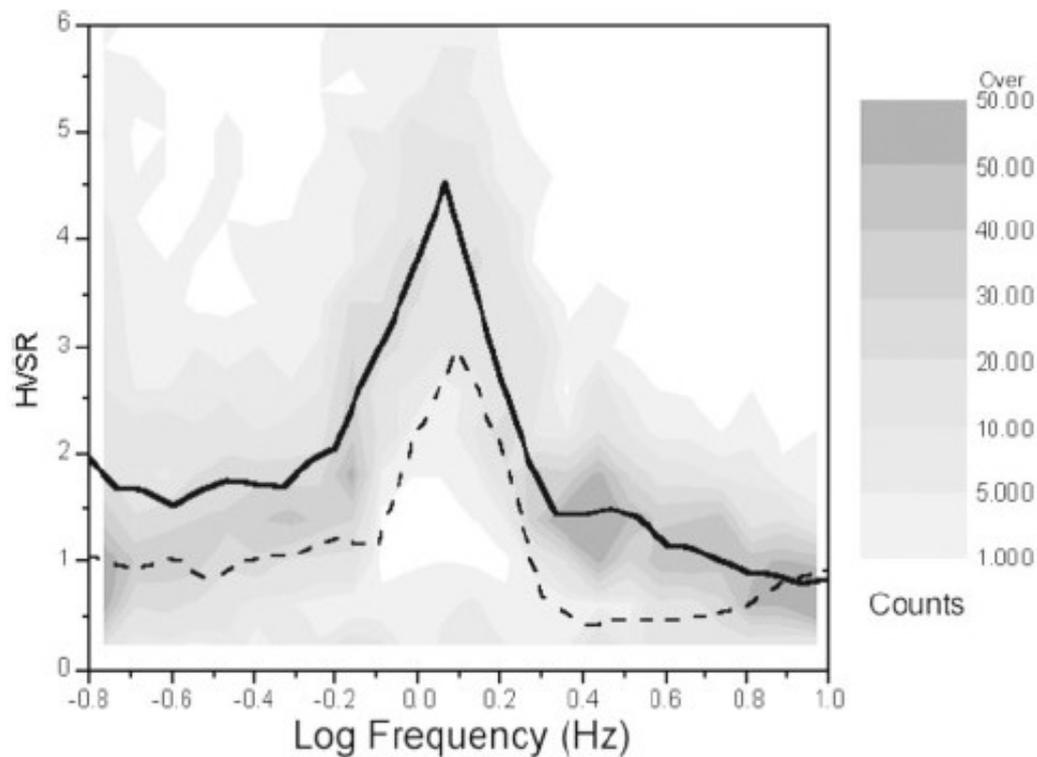


Figure 3. Density distribution of the observed HVSR for earthquakes. The superimposed lines are the average HVSR from earthquakes (solid line) and the HVSR from a standard ambient noise measurement (dotted line).

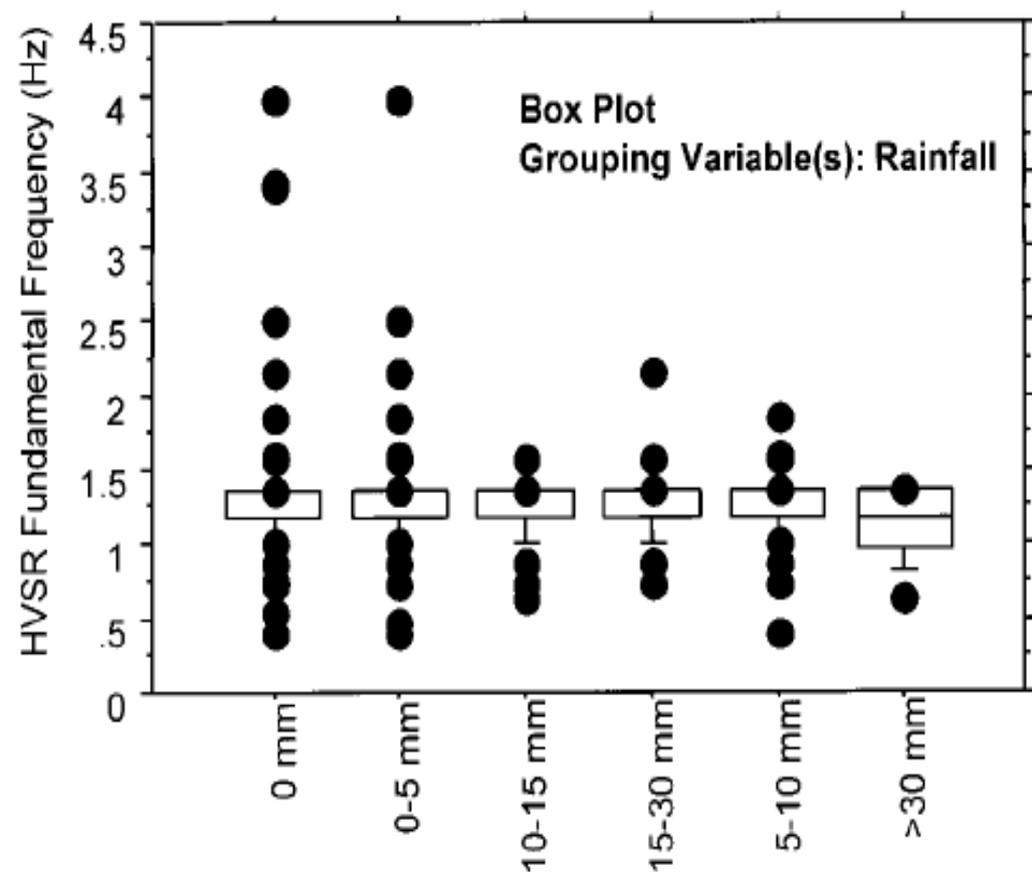


Figure 4. Box-and-whisker plot of the relationship between the rainfall in the 72 hr preceding an earthquake and the corresponding fundamental HVSR frequency.

Comparison of Empirical and Numerical Site Responses at the Tito Test Site, Southern Italy

by S. Parolai, M. Mucciarelli, M. R. Gallipoli, S. M. Richwalski, and A. Strollo

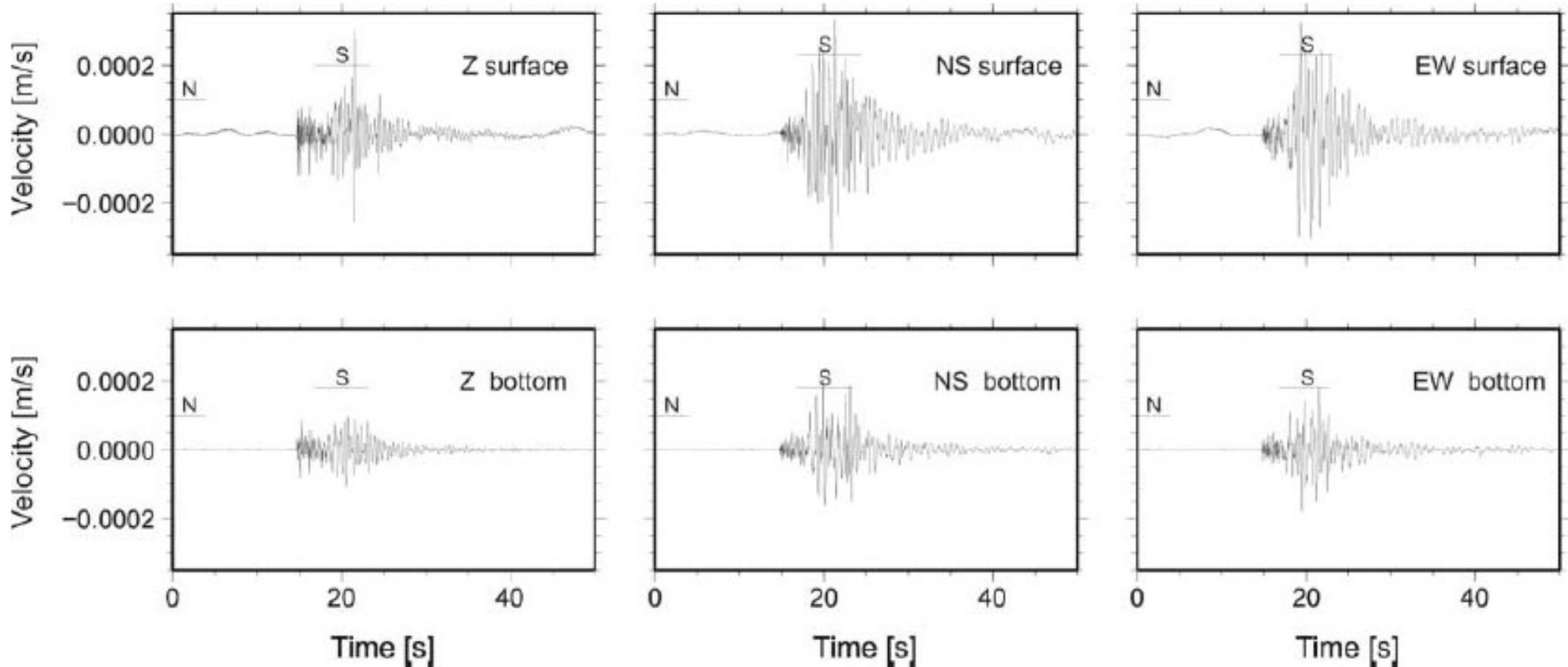


Figure 14. Vertical (Z), north–south (NS), and east–west (EW) component recordings of the event BA923 (Table 2). The signal (S) and the pre-event noise (N) windows used for the analysis are shown. (top) Surface station; (bottom) borehole station.

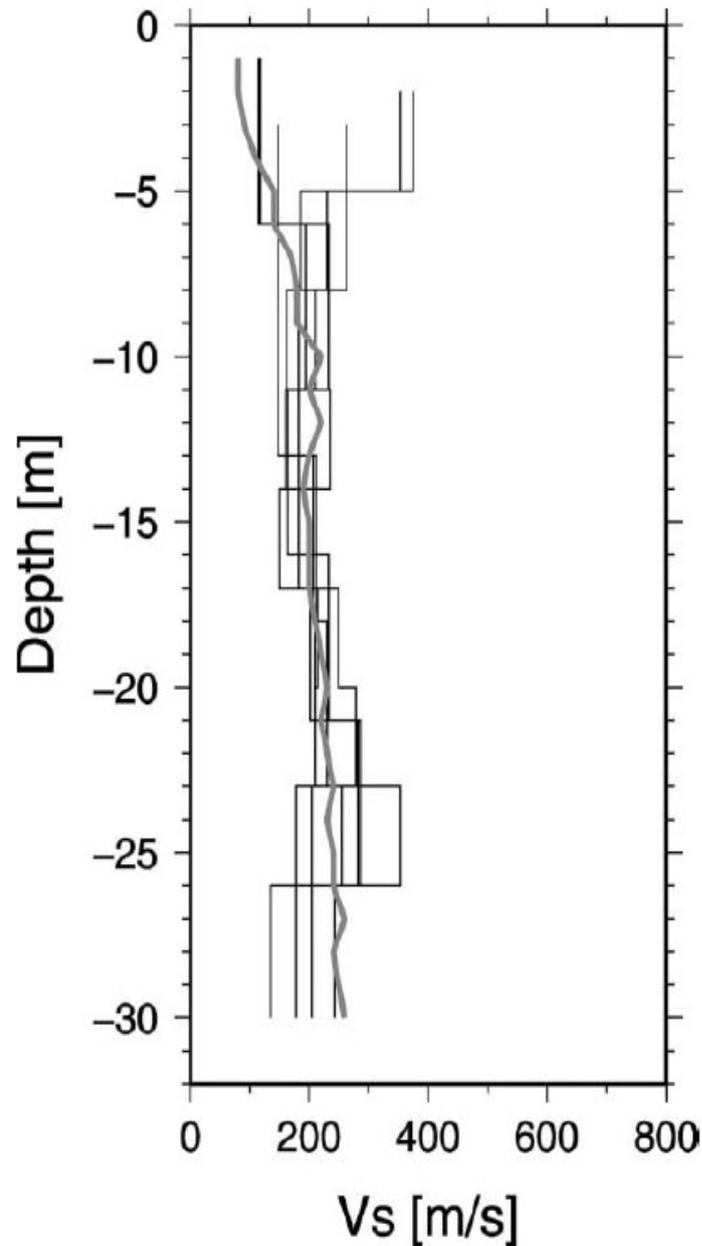


Figure 3. *S*-wave velocity profiles (black lines) determined in this work. The *S*-wave velocity structure provided by the service company is shown by the gray line.

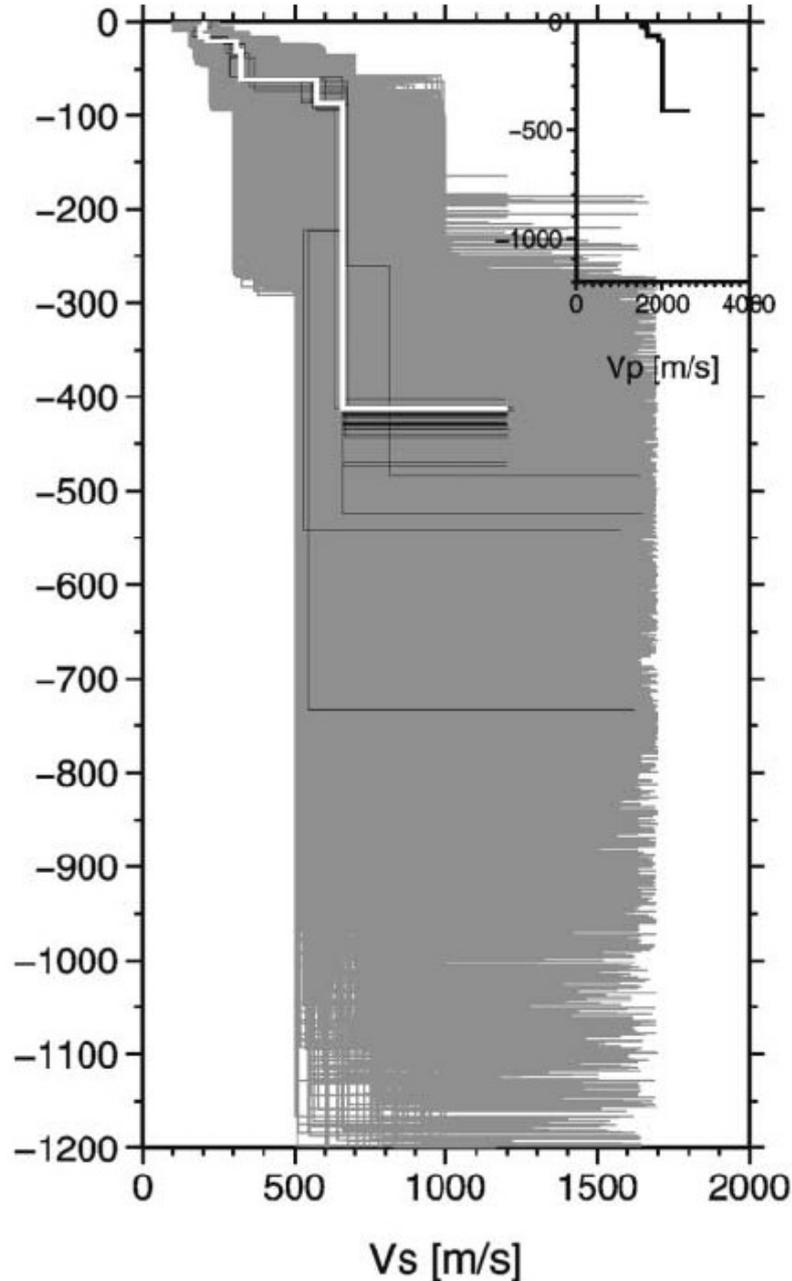
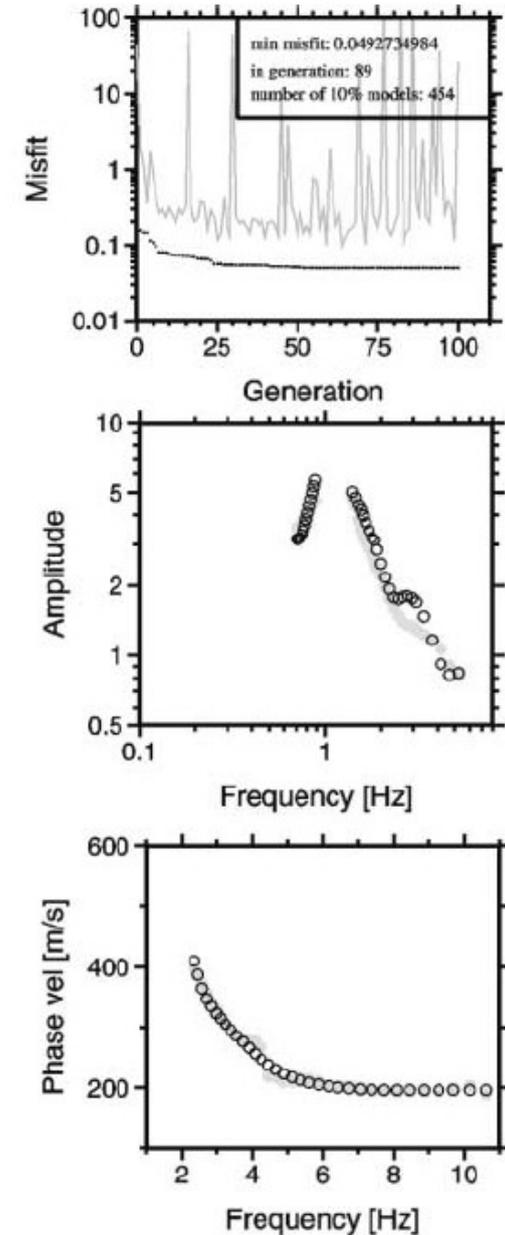


Figure 8. (left) Joint inversion for array 1: all tested models (dark gray), the minimum misfit model (white), and models lying inside the minimum misfit + 10% range (black). The inset shows the *P*-wave velocity model using equation (6) in the joint-inversion procedure. (right top) Minimum misfit (black dots) and average misfit (gray line) versus number of generations for the seed number leading to the best model. (right middle) Observed (gray circles) and calculated (white circles) *H/V* spectral ratio. (right bottom) Observed (gray circles) and calculated (white circles) apparent phase velocities.



The influence of wind on measurements of seismic noise

Marco Mucciarelli,^{1,*} Maria Rosaria Gallipoli,^{1,2} Domenico Di Giacomo,¹
Francesco Di Nota³ and Enrico Nino⁴

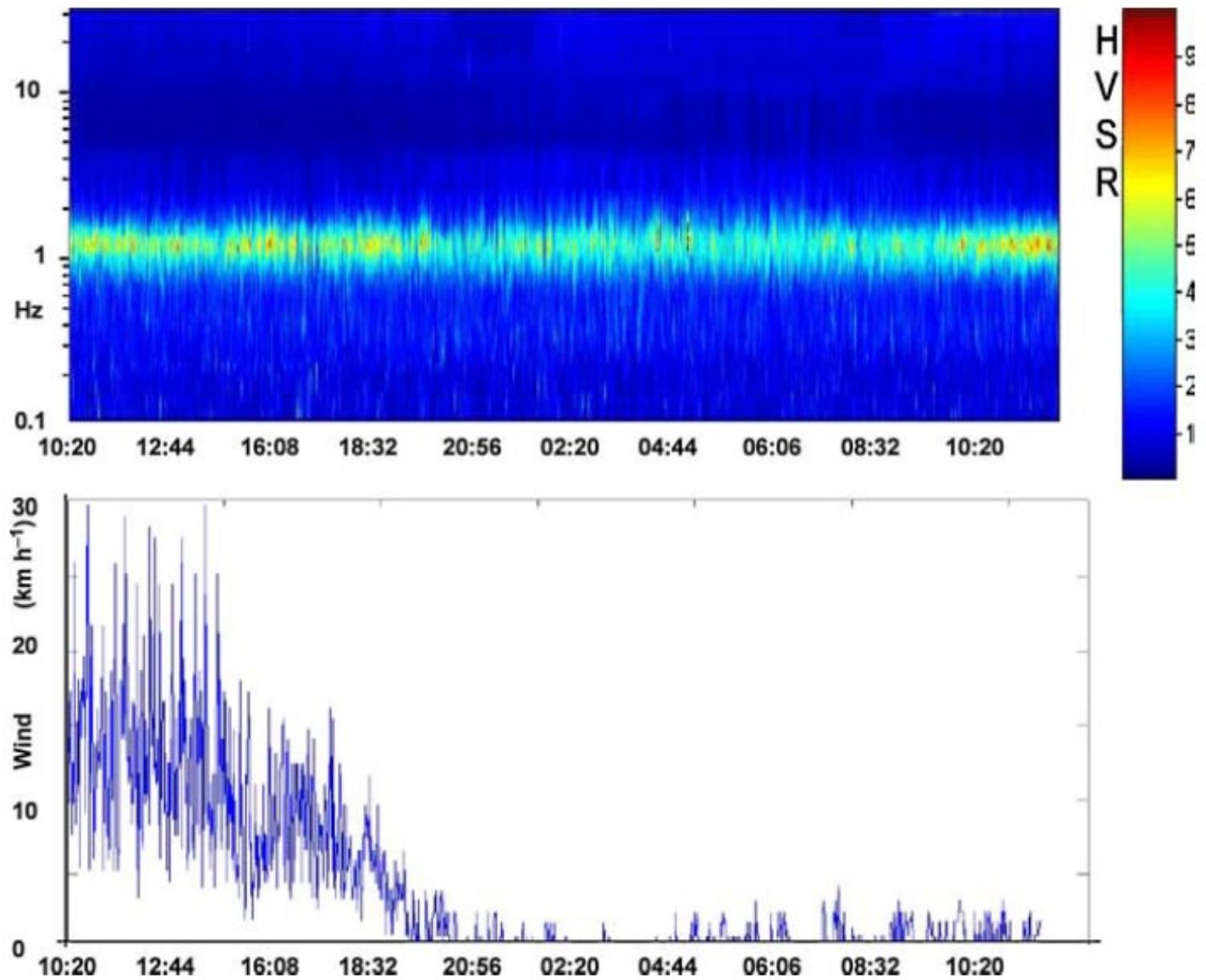


Figure 1. Wind speed and HVSR plotted at 1 min intervals during a windy working day at TIT seismic station, Italy.

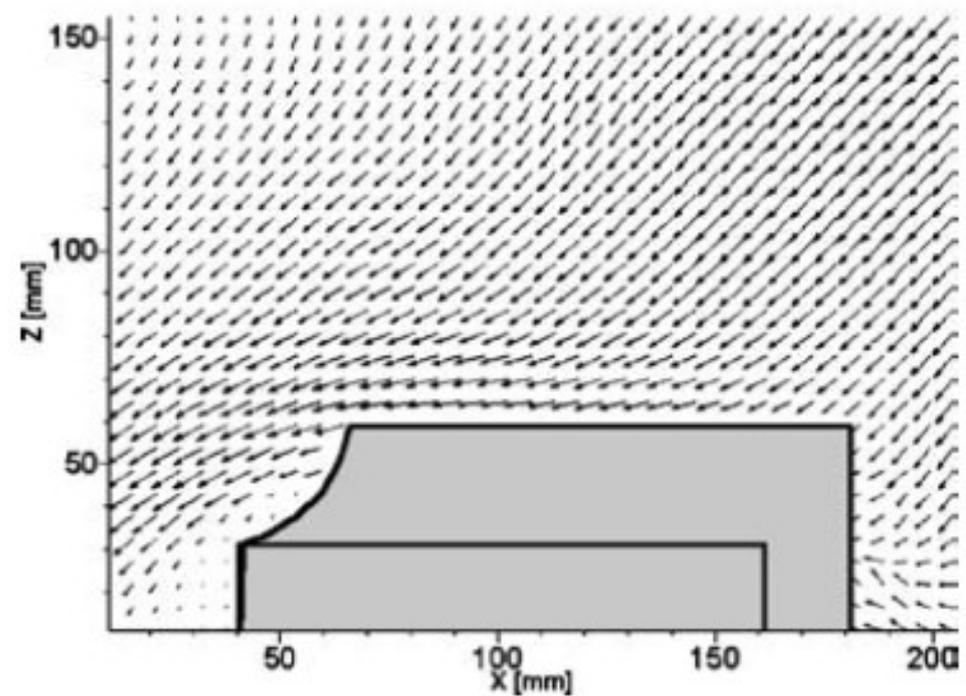
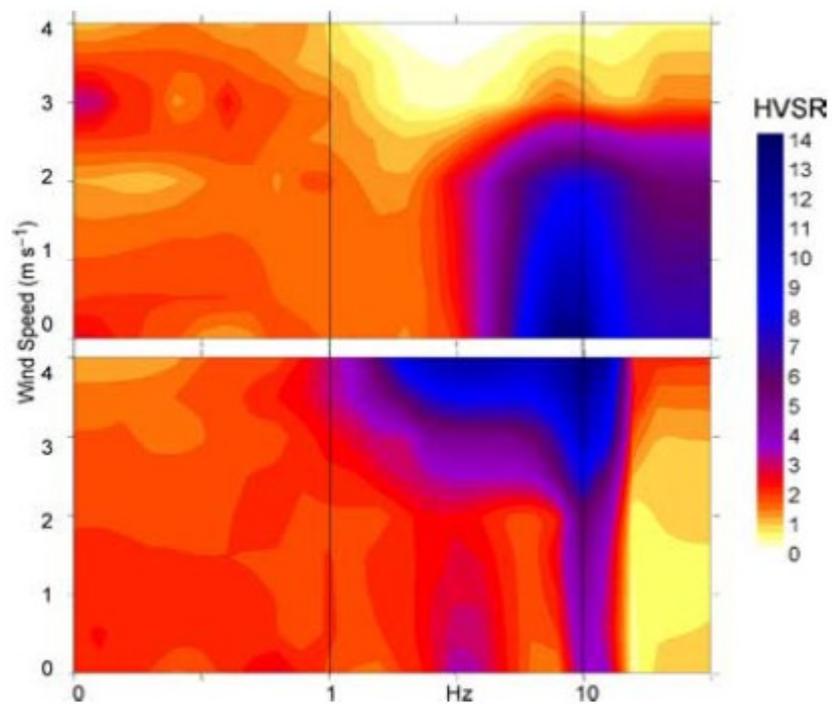
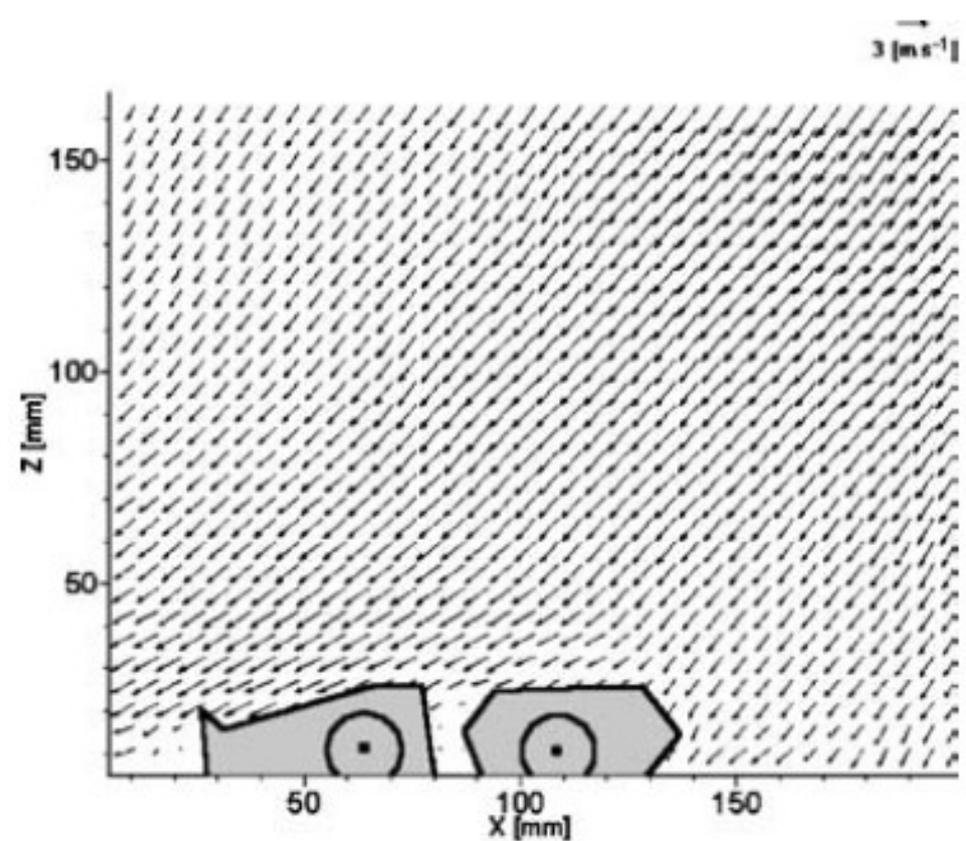
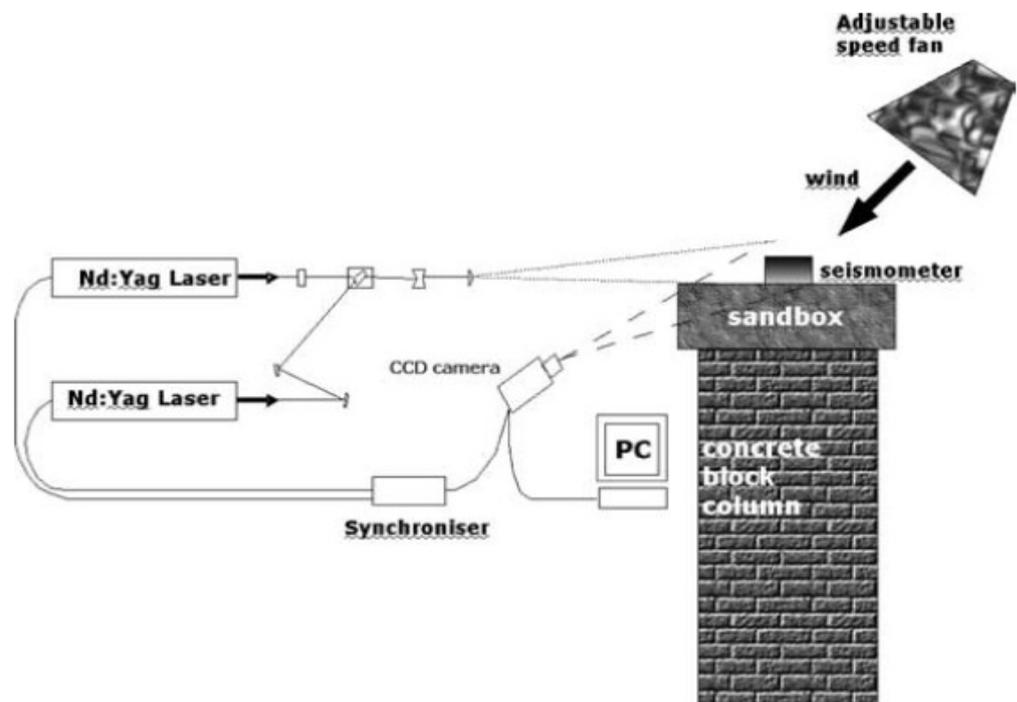


Figure 6. Comparison between HVSR for the two seismometers under increasing wind speed. Top: geophones wired to an external acquisition system. Bottom: stand-alone unit.

Analysis and Modeling of HVSR in the Presence of a Velocity Inversion: The Case of Venosa, Italy

by Domenico Di Giacomo, Maria Rosaria Gallipoli, Marco Mucciarelli,
Stefano Parolai, and Sandra M. Richwalski

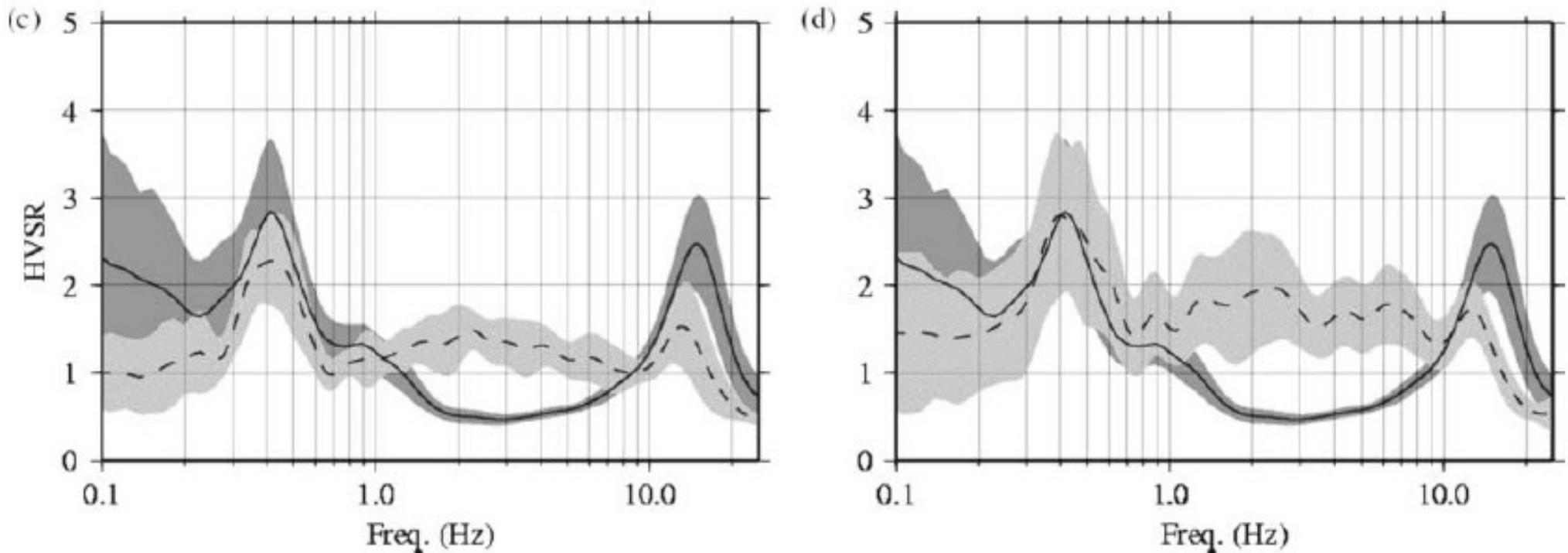


Figure 3. Comparison between the mean spectral ratio of earthquakes (dashed lines) and triggered noise (solid lines). Dark-gray area represents ± 1 S.D. of the triggered noise. Light-gray area represents ± 1 S.D. of (a) the local earthquakes; (b) San Giuliano di Puglia 2002 sequence; (c) regional and teleseismic events; (d) all the analyzed earthquakes.

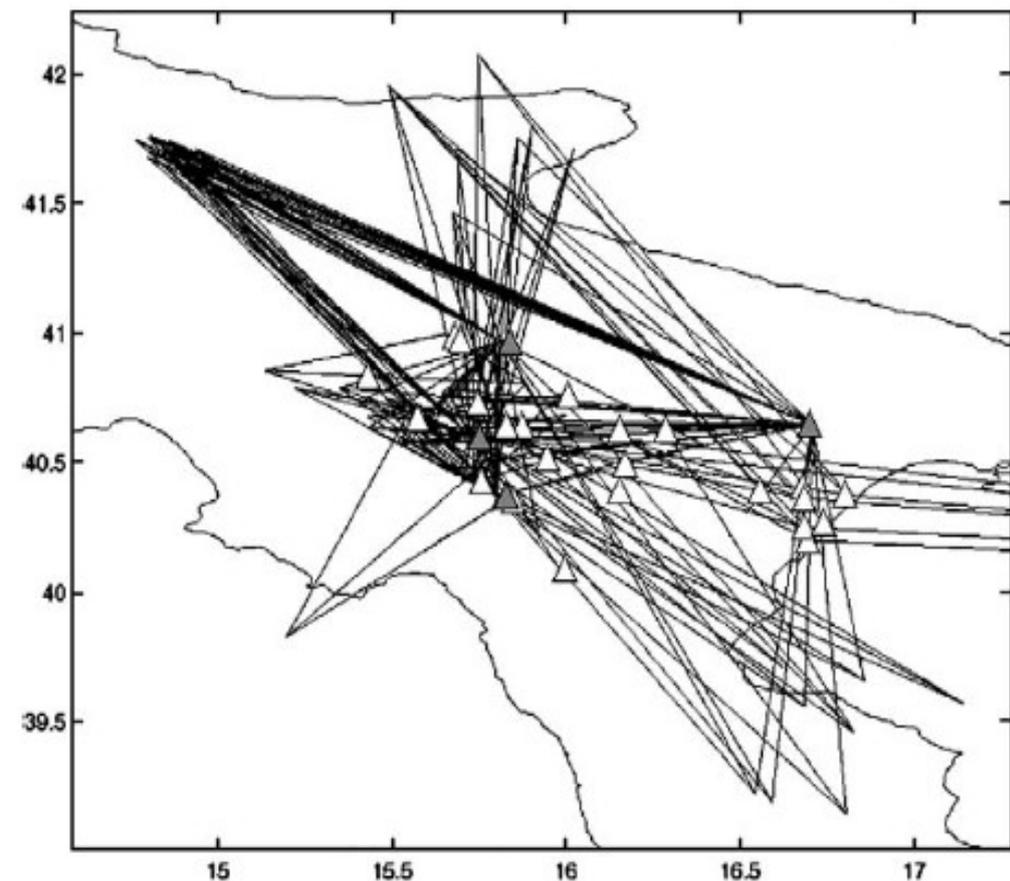
Crustal Q in Southern Italy determined from regional earthquakesRaúl R. Castro ^{a,*}, Maria Rosaria Gallipoli ^{b,c}, Marco Mucciarelli ^c

Fig. 1. Map of the southern Italy region showing the source-station paths that sample the attenuation zone studied. Gray triangles indicate stations with seismometers and white triangles stations with accelerometers.

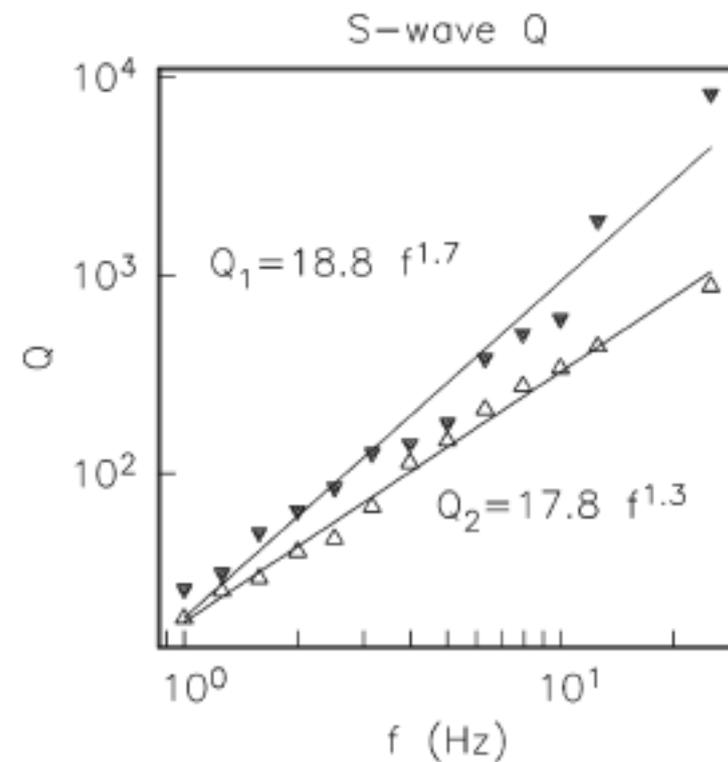


Fig. 9. Comparison between values of Q_1 obtained for the upper crust (filled triangles) and estimates of Q_2 for the lower crust (open triangles). The Q - f regression functions are also shown.

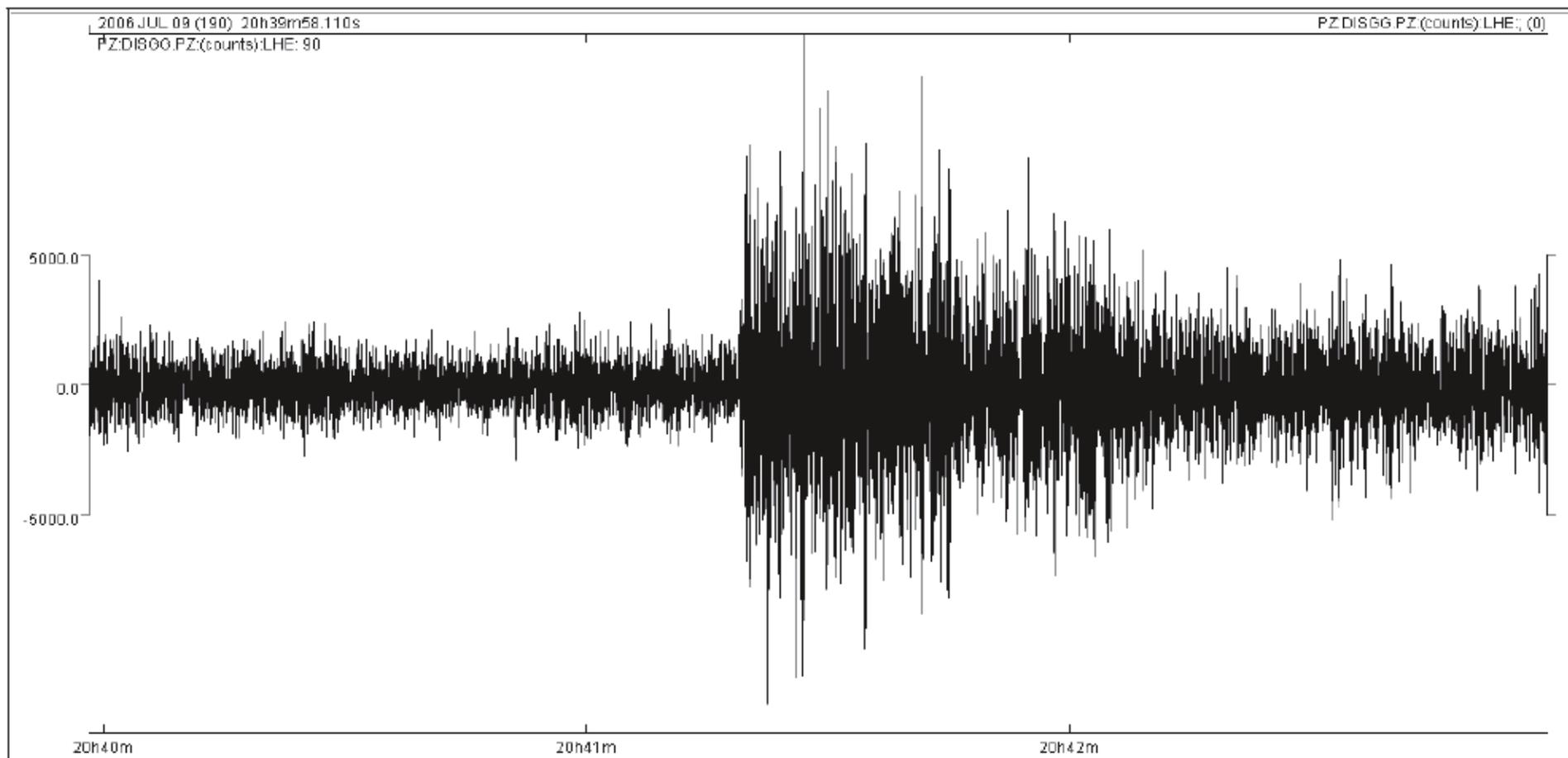
EARTHQUAKE



LITES

Jumpin' Joy Quake

http://www.youtube.com/watch?v=8rw0sdjdNZI&feature=channel_page



▲ **Figure 1.** Vertical component of acceleration recorded at the seismic station of the University of Basilicata, Potenza Campus (Italy).