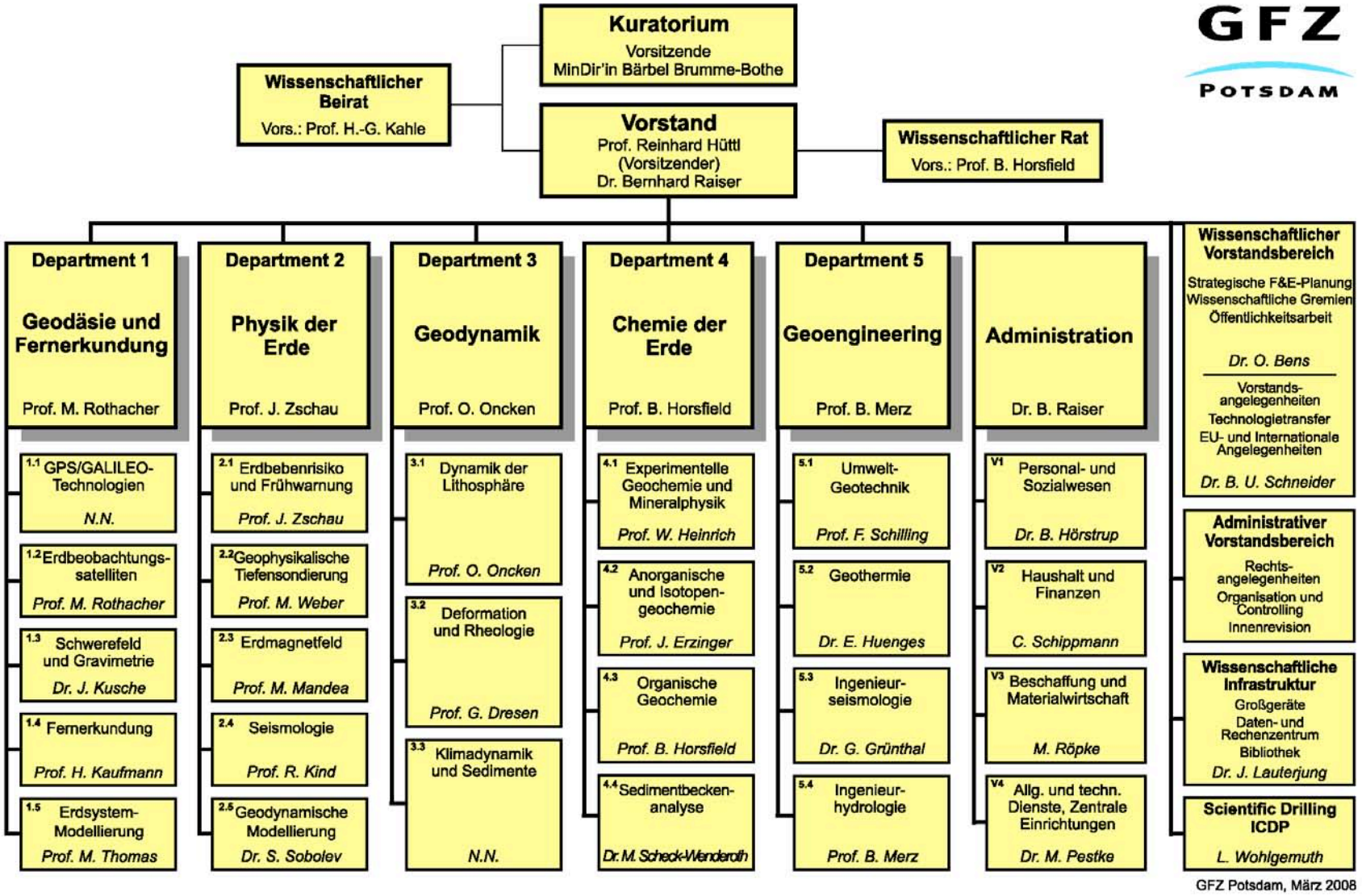
GFZ –Potsdam Campus

GeoForschungsZentrum Potsdam (GFZ)
in der Helmholtz-Gemeinschaft
http://www.helmholtz.de/

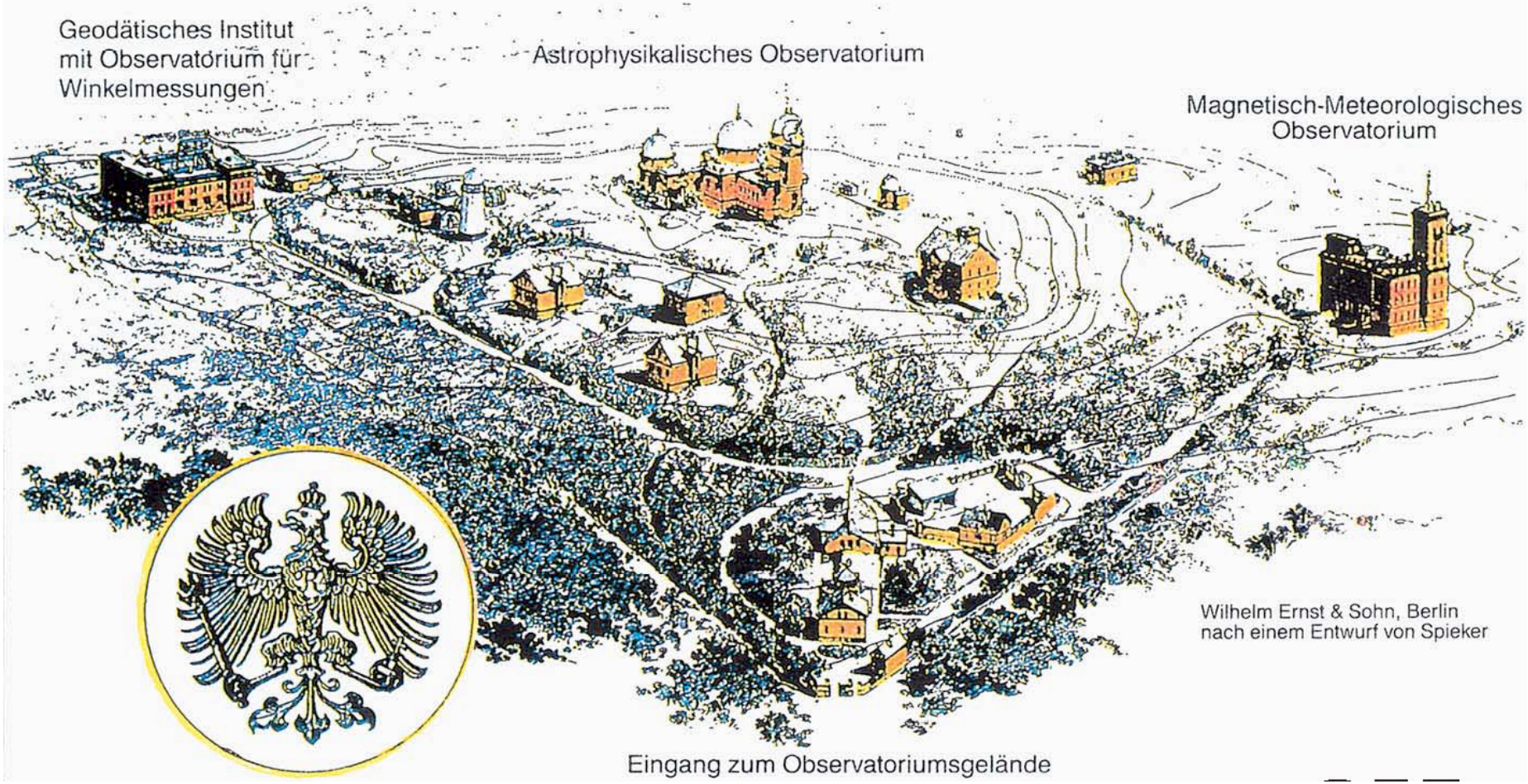
Budget 2006: 70 Mio. €
ca. 40 % Third part money!

Employes: > 750 (December 2006)
about 335 Researchers

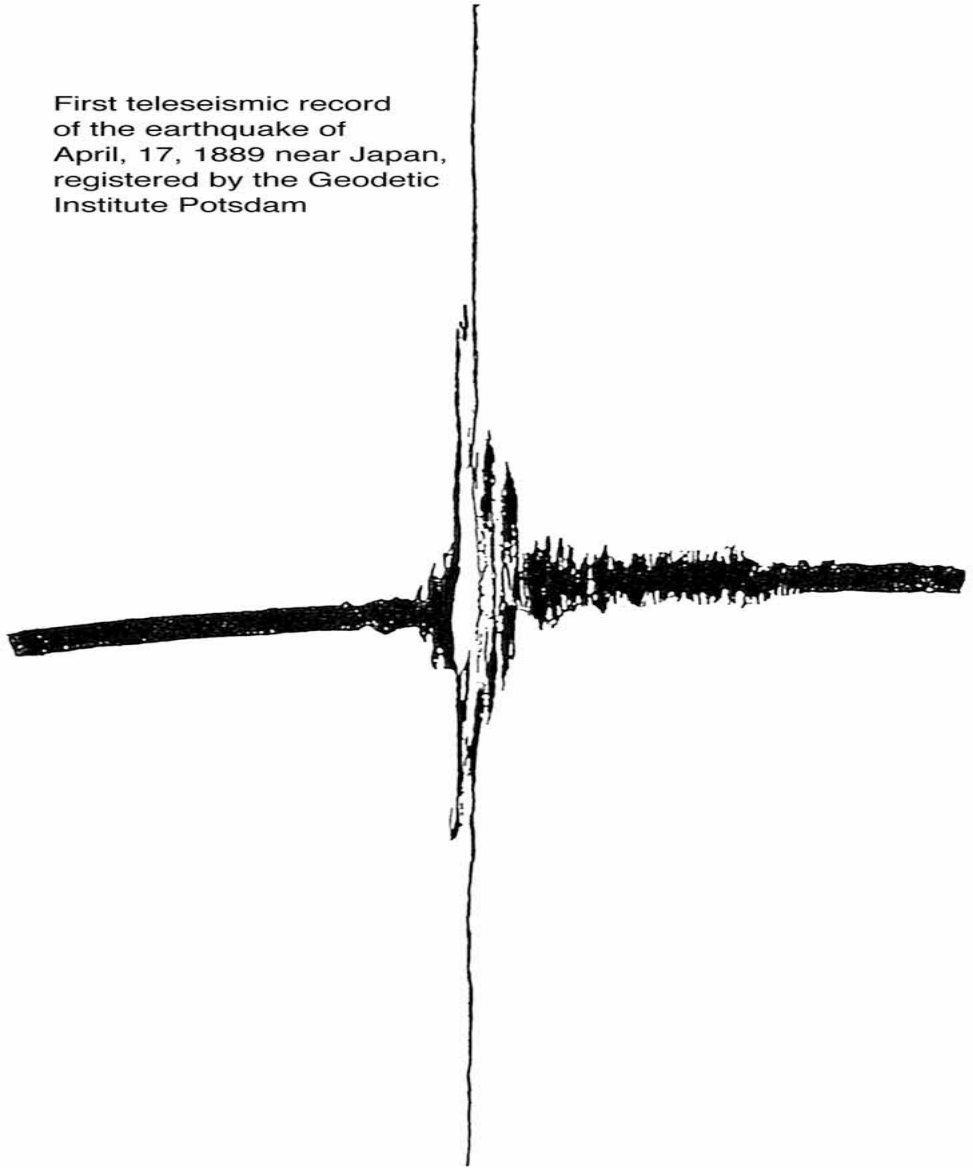
GFZ-Potsdam


Kuratorium
Vorsitzende
MinDir'in Bärbel Brumme-Bothe
Wissenschaftlicher Beirat
Vors.: Prof. H.-G. Kahle
Vorstand
Prof. Reinhard Hüttl
(Vorsitzender)
Dr. Bernhard Raiser
Wissenschaftlicher Rat
Vors.: Prof. B. Horsfield
Department 1
Geodäsie und Fernerkundung
Prof. M. Rothacher
1.1 GPS/GALILEO-Technologien
N.N.
1.2 Erdbeobachtungs-satelliten
Prof. M. Rothacher
1.3 Schwerefeld und Gravimetrie
Dr. J. Kusche
1.4 Fernerkundung
Prof. H. Kaufmann
1.5 Erdsystem-Modellierung
Prof. M. Thomas
Department 2
Physik der Erde
Prof. J. Zschau
2.1 Erdbebenrisiko und Frühwarnung
Prof. J. Zschau
2.2 Geophysikalische Tiefensondierung
Prof. M. Weber
2.3 Erdmagnetfeld
Prof. M. Mandea
2.4 Seismologie
Prof. R. Kind
2.5 Geodynamische Modellierung
Dr. S. Sobolev
Department 3
Geodynamik
Prof. O. Oncken
3.1 Dynamik der Lithosphäre
Prof. O. Oncken
3.2 Deformation und Rheologie
Prof. G. Dresen
3.3 Klimadynamik und Sedimente
N.N.
Department 4
Chemie der Erde
Prof. B. Horsfield
4.1 Experimentelle Geochemie und Mineralphysik
Prof. W. Heinrich
4.2 Anorganische und Isotopen-geochemie
Prof. J. Erzinger
4.3 Organische Geochemie
Prof. B. Horsfield
4.4 Sedimentbecken-analyse
Dr. M. Scheck-Wenderoth
Department 5
Geoengineering
Prof. B. Merz
5.1 Umwelt-Geotechnik
Prof. F. Schilling
5.2 Geothermie
Dr. E. Huenges
5.3 Ingenieur-seismologie
Dr. G. Grünthal
5.4 Ingenieur-hydrologie
Prof. B. Merz
Administration
Dr. B. Raiser
V1 Personal- und Sozialwesen
Dr. B. Hörstrup
V2 Haushalt und Finanzen
C. Schippmann
V3 Beschaffung und Materialwirtschaft
M. Röpke
V4 Allg. und techn. Dienste, Zentrale Einrichtungen
Dr. M. Pestke
Wissenschaftlicher Vorstandsbereich
Strategische F&E-Planung
Wissenschaftliche Gremien
Öffentlichkeitsarbeit
Dr. O. Bens
Vorstands-angelegenheiten
Technologietransfer
EU- und Internationale Angelegenheiten
Dr. B. U. Schneider
Administrativer Vorstandsbereich
Rechts-angelegenheiten
Organisation und Controlling
Innenrevision
Wissenschaftliche Infrastruktur
Großgeräte
Daten- und Rechenzentrum
Bibliothek
Dr. J. Lauterjung
Scientific Drilling ICDP
L. Wohlgemuth
GFZ Potsdam, März 2008

Die Königlich Preußischen Observatorien bei Potsdam
auf dem Telegraphen-Berge (um 1892)

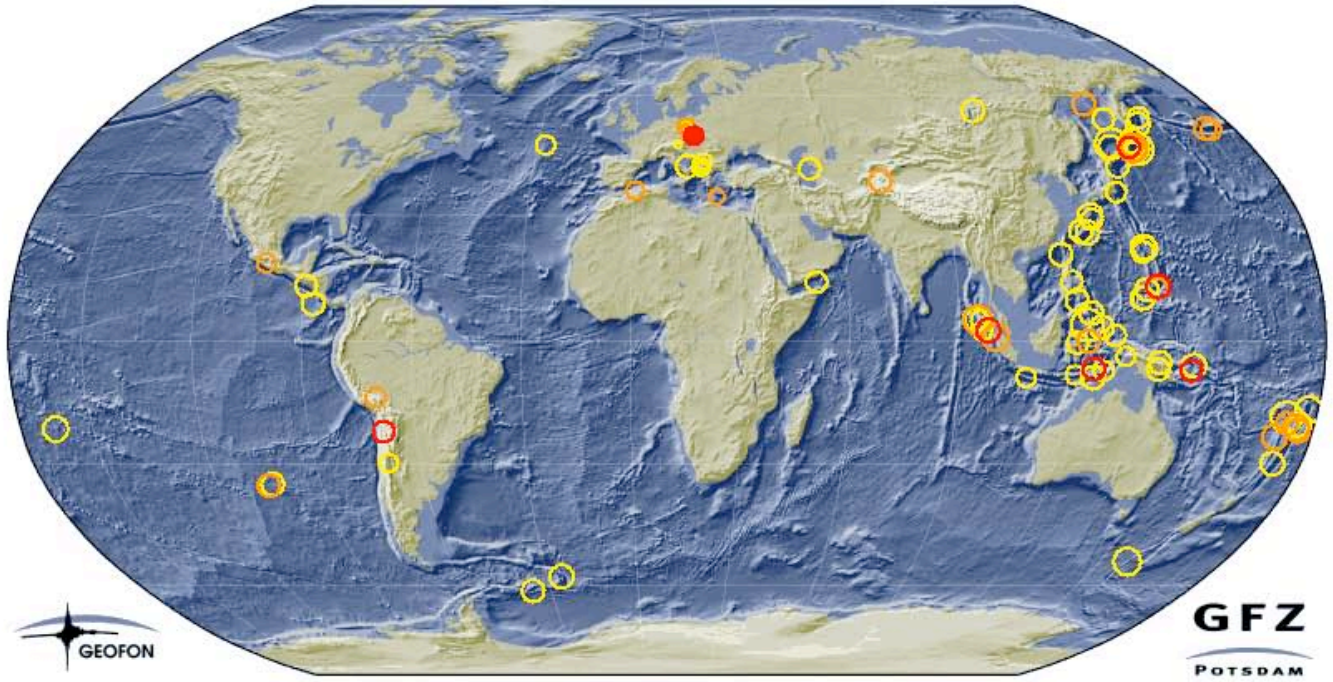


Eingang zum Observatoriumsgelände



First teleseismic record of the earthquake of April, 17, 1889 near Japan, registered by the Geodetic Institute Potsdam

Automatic GEOFON Global Seismic Monitor



The displayed events are within the last **24 hours** / 1-4 days / 4-14 days .

Most recent large event:

Czech And Slovak Republics

Magnitude: 3.5 (ML)

Origin time: 2006/12/19 02:35:19 UTC

Longitude: 18.39°E

Latitude: 49.59°N

See also:
- The specific page for this event
- The complete list of automatic GEOFON alerts

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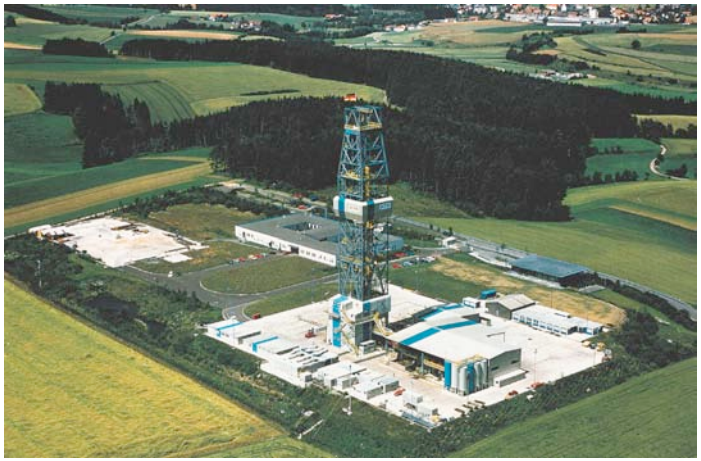
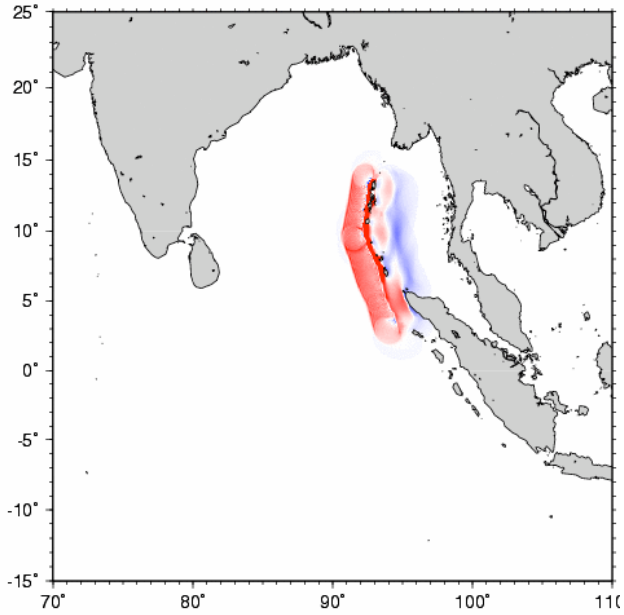
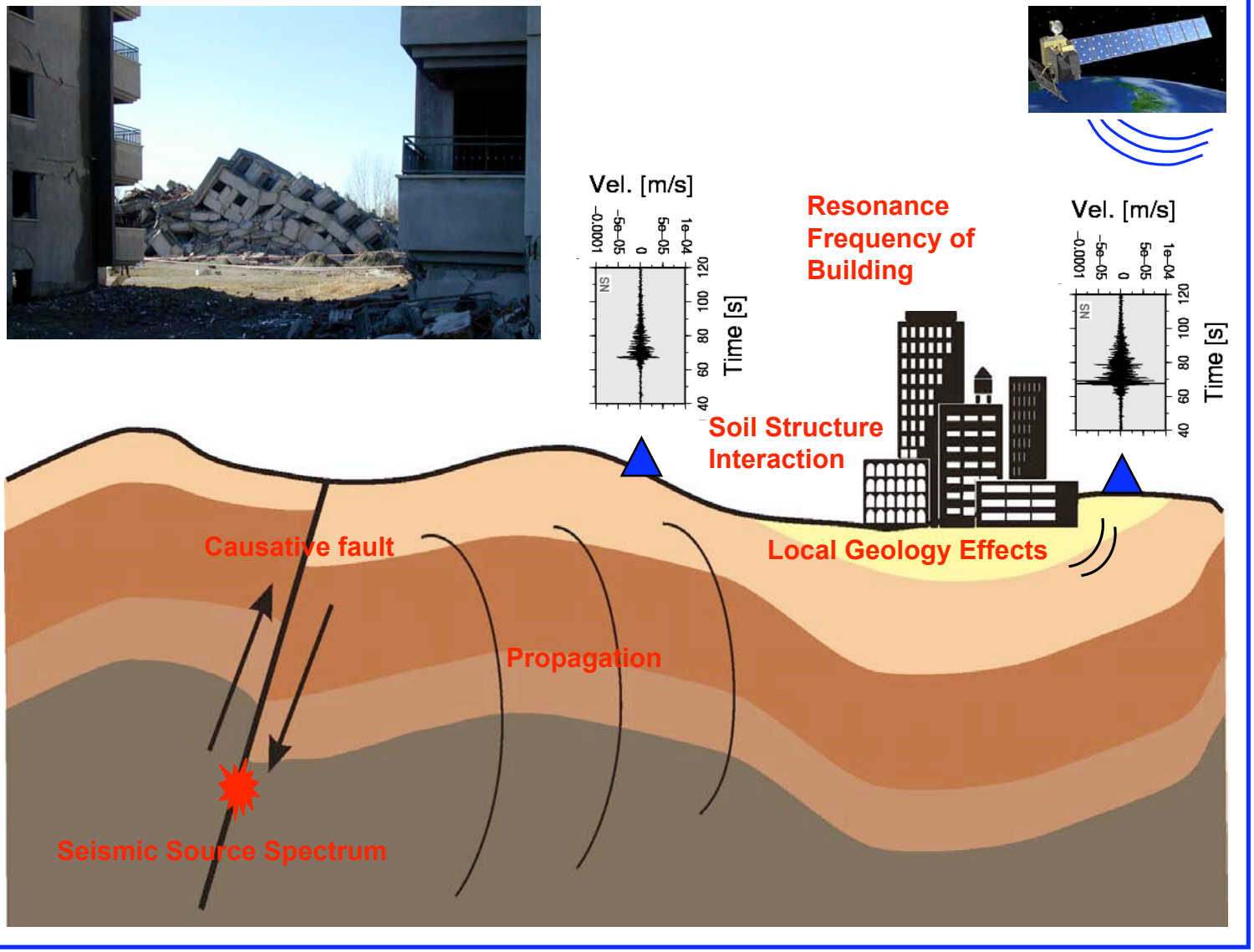


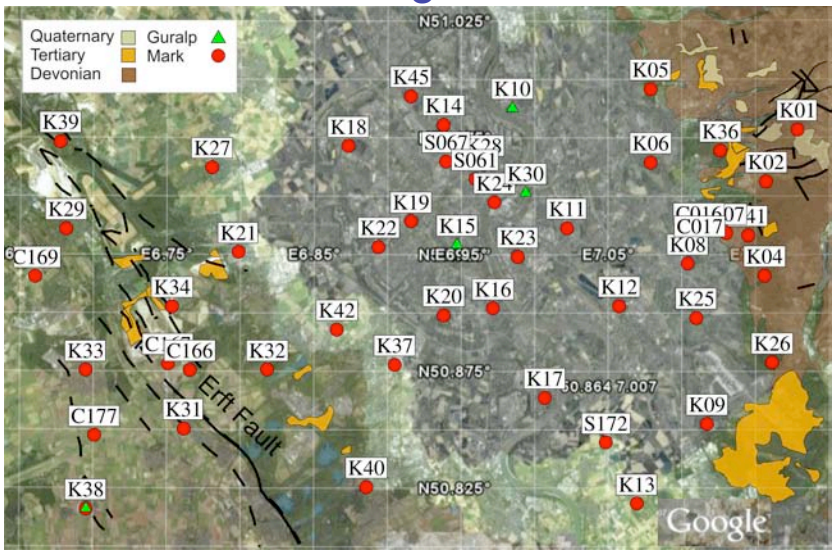
2004 Sumatra Earthquake 010 min



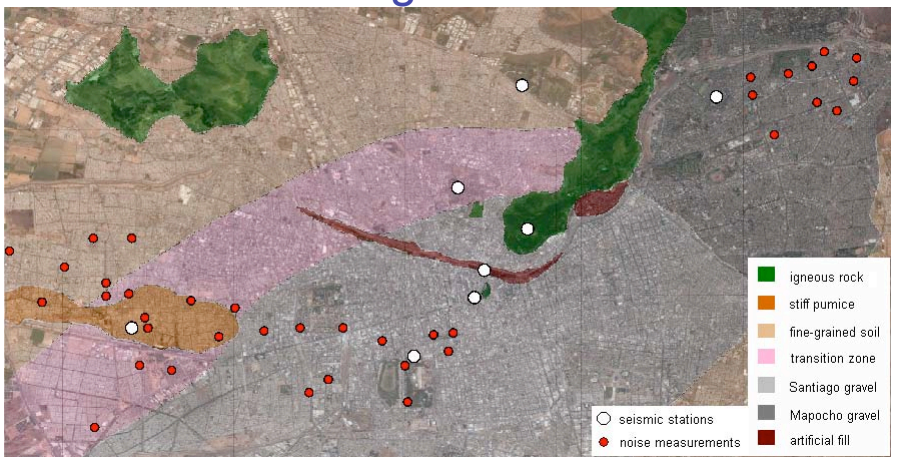

Vel. [m/s]
Time [s]
Resonance
Frequency of
Building
Vel. [m/s]
Time [s]
Soil Structure
Interaction
Causative fault
Local Geology Effects
Propagation
Seismic Source Spectrum

Earthquake Microzonation Group: network installations

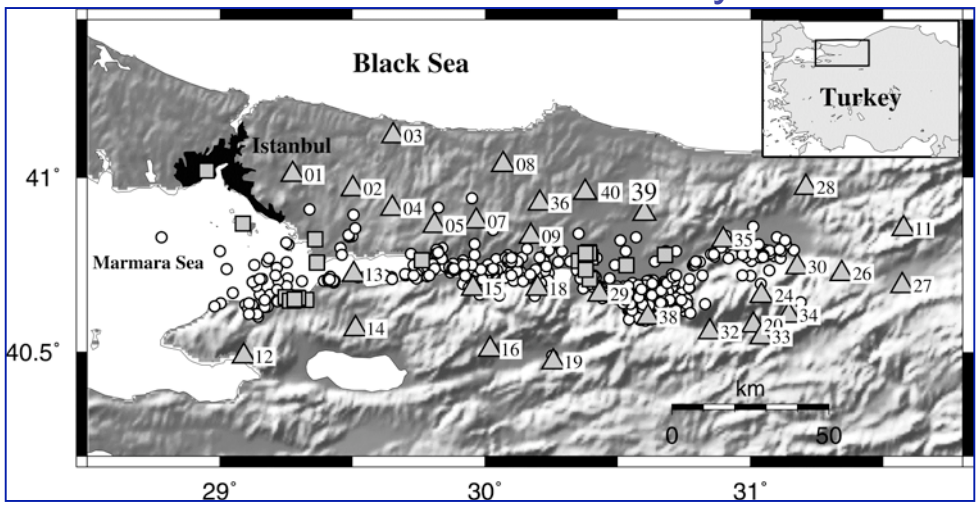
Cologne



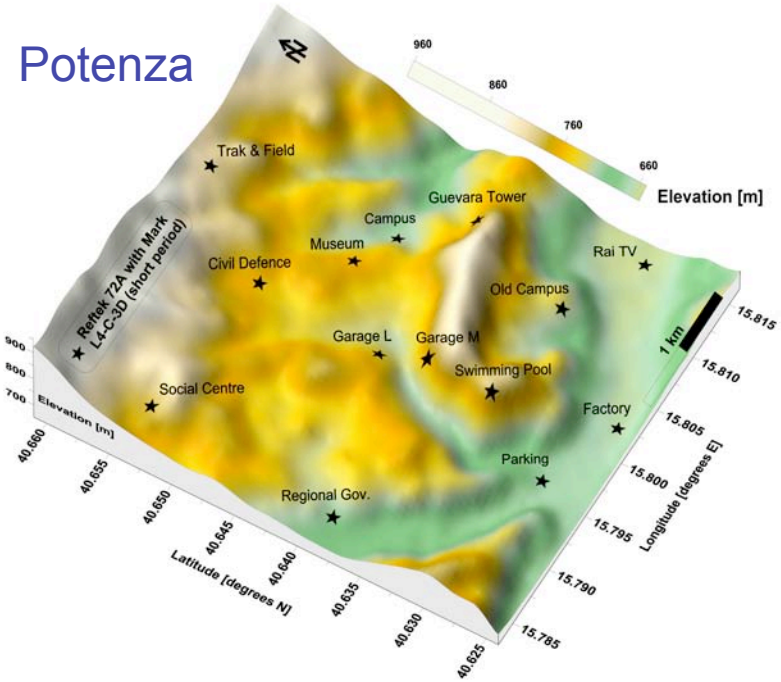
Santiago de Chile



Northwestern Turkey

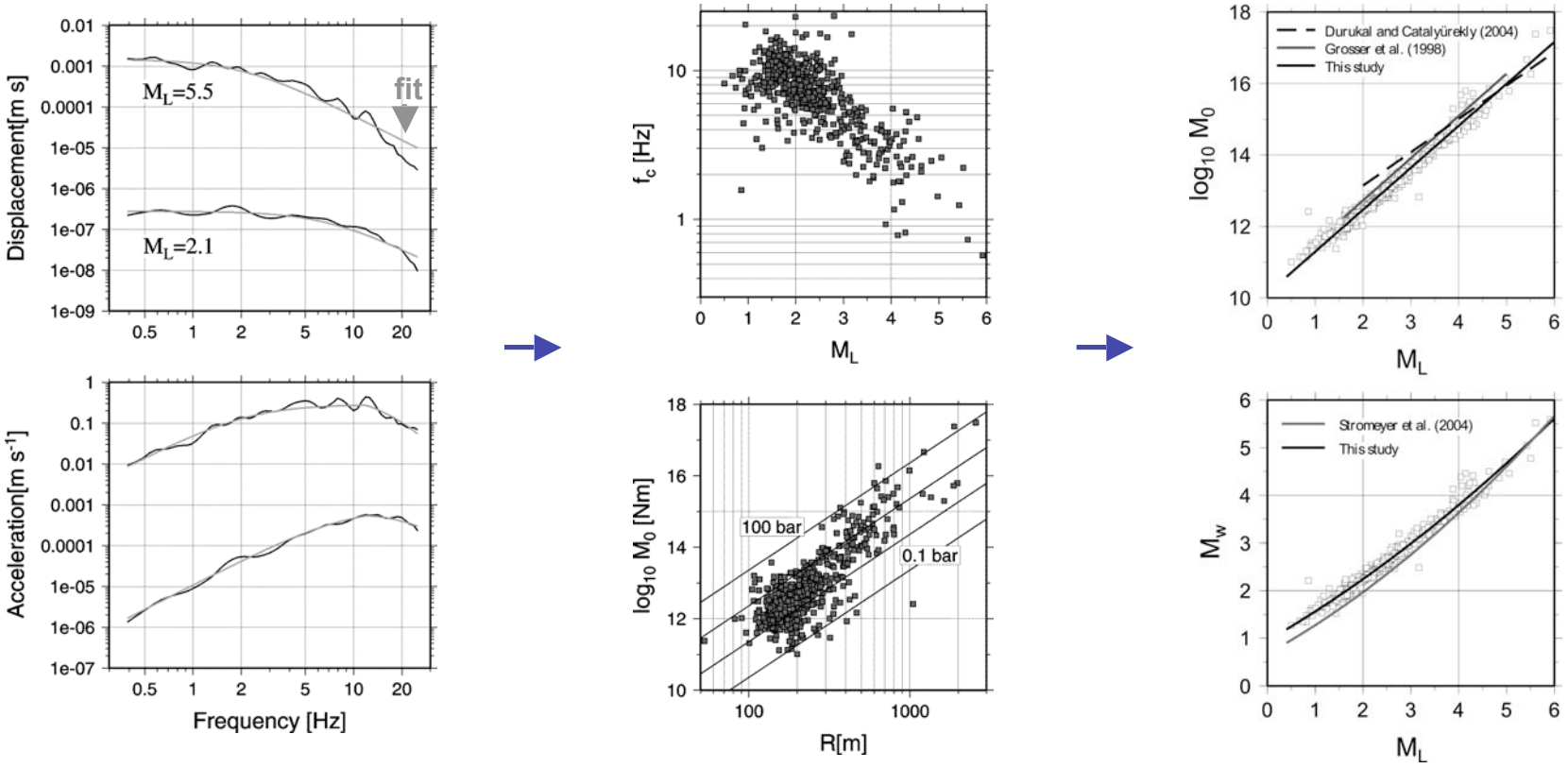


Potenza

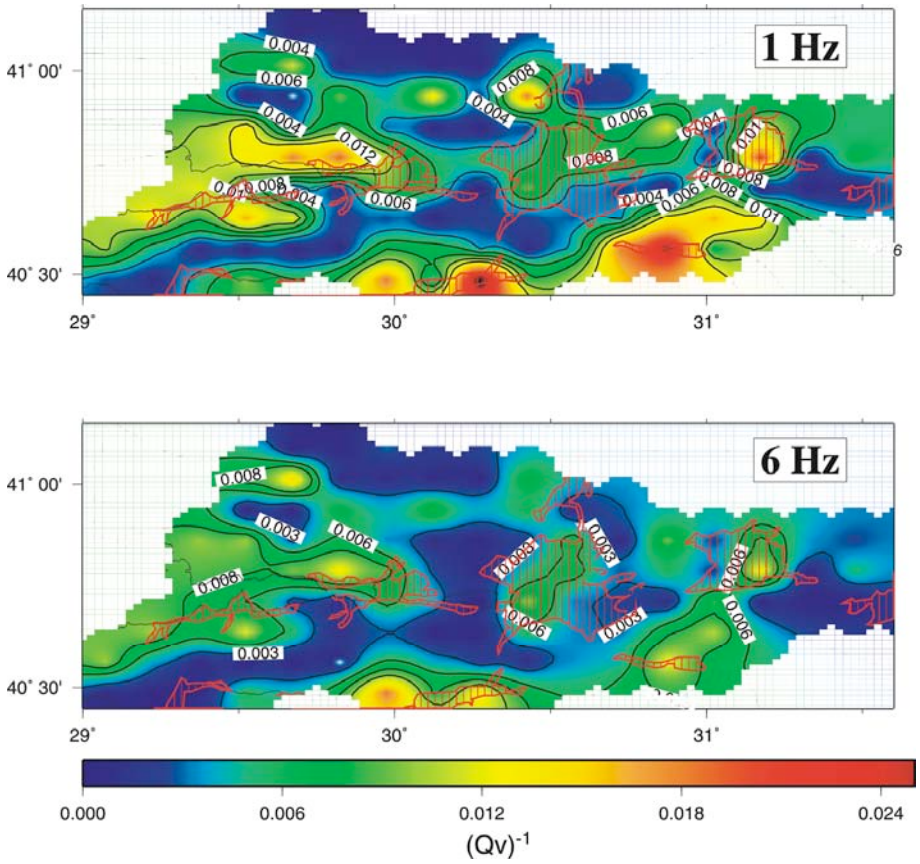


GFZ POTSDAM

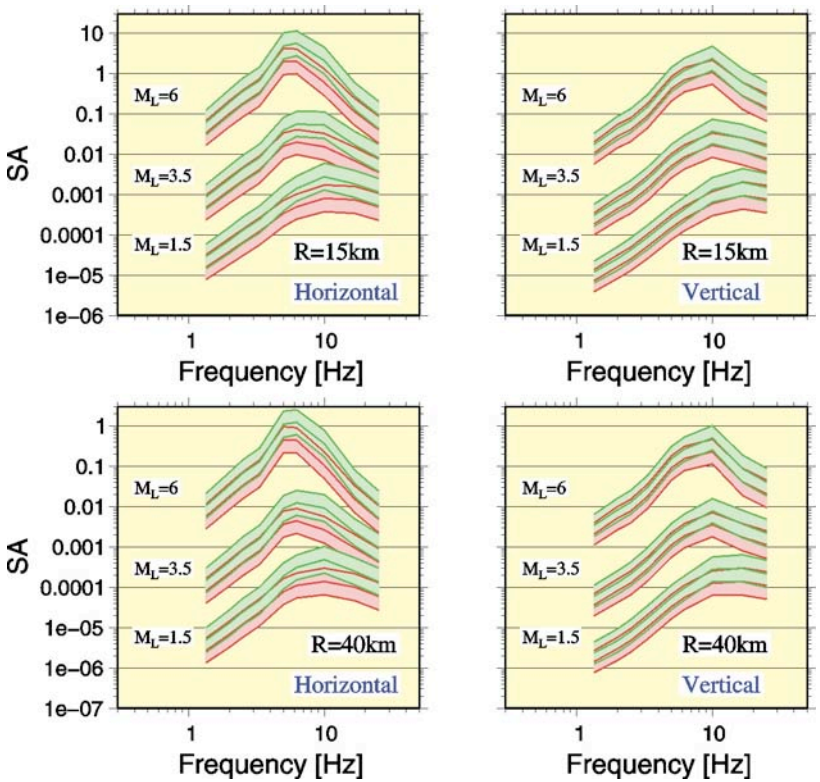
Spectral fitting → Source parameter relationships → M_w-M_L relationship



Attenuation

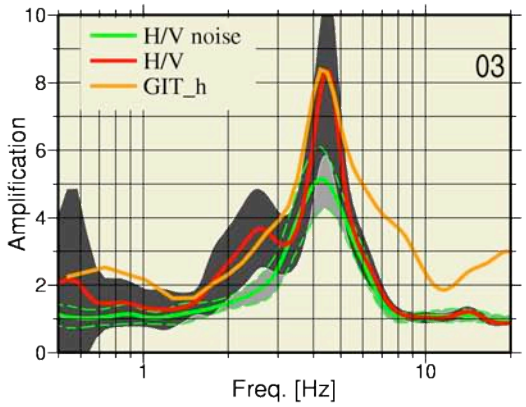


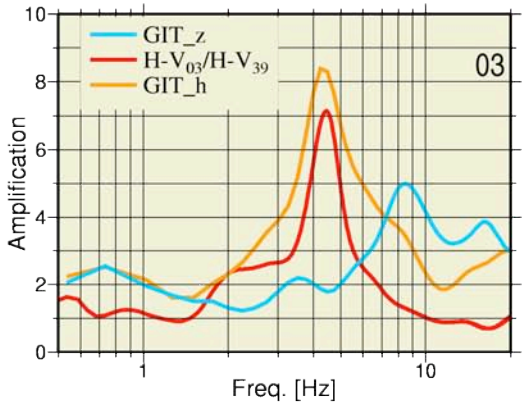
Spectral Acceleration

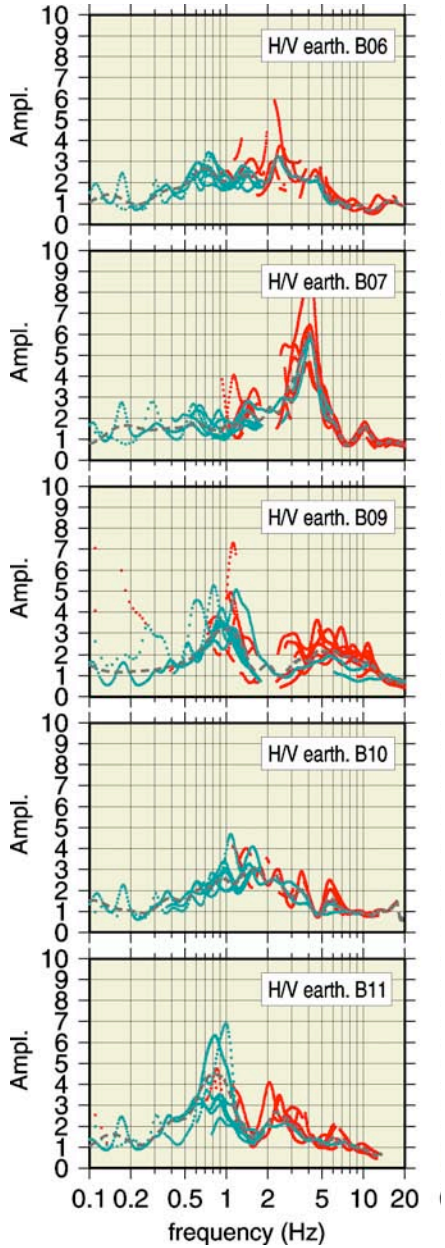


GFZ POTSDAM

Application of reference and non reference site techniques

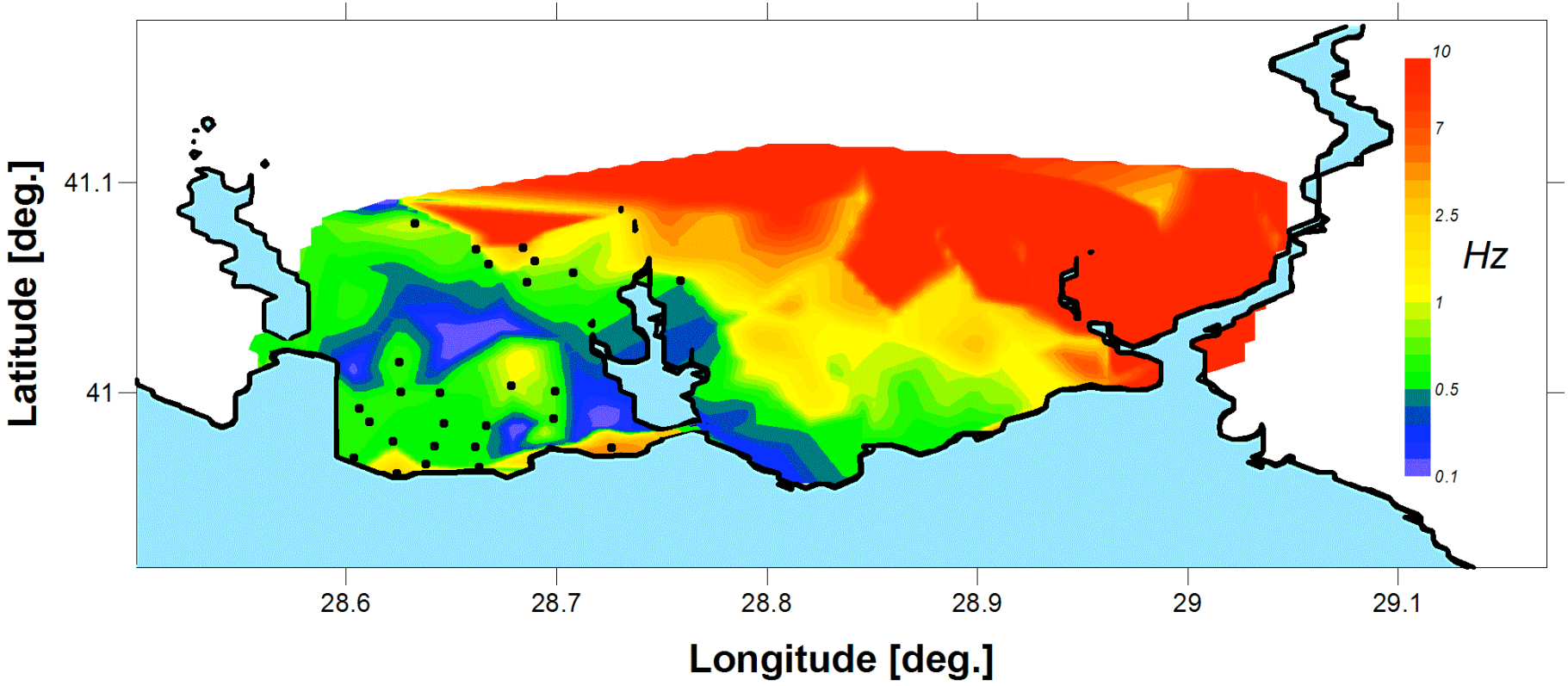






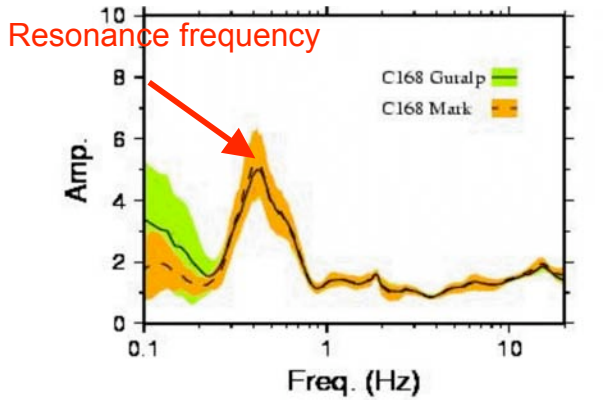
Analysis of local, regional and teleseismic events

Western Istanbul resonance frequency map

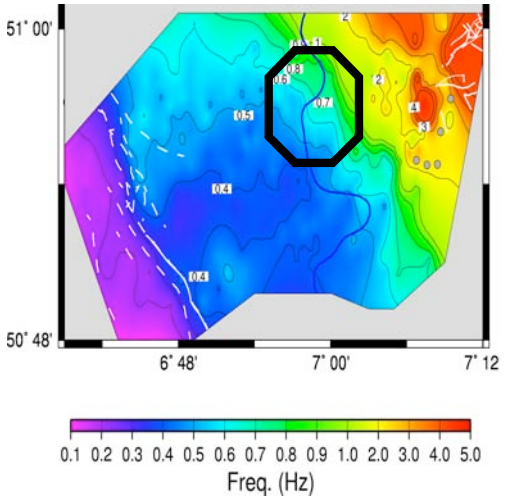


Earthquake Microzonation Group: Noise H/V

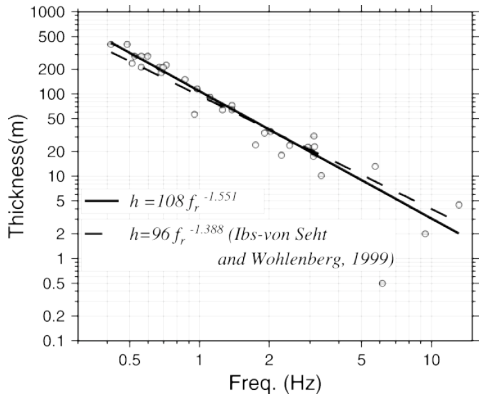
Noise Measurements (H/V)



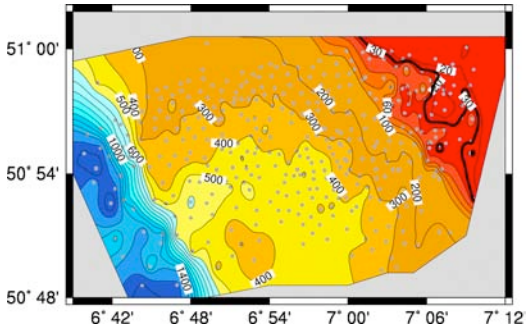
Fundamental resonance frequency map



Fundamental resonance frequency vs sedimentary cover thickness

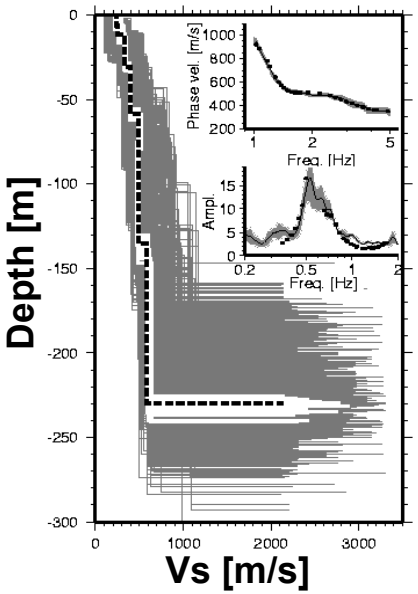


Sedimentary cover thickness map



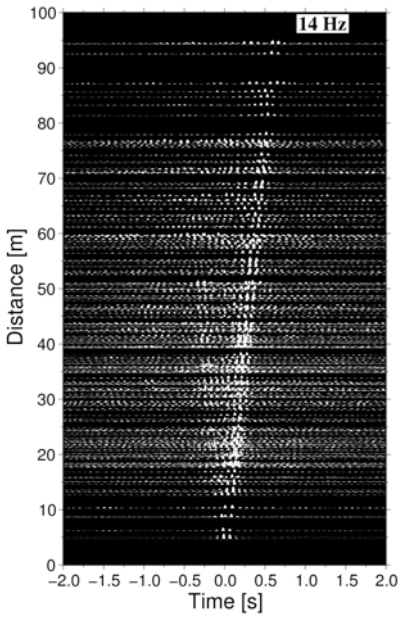
The challenge of subsoil investigation in Megacities

1-D structure ⟷ *2D-3D structure*

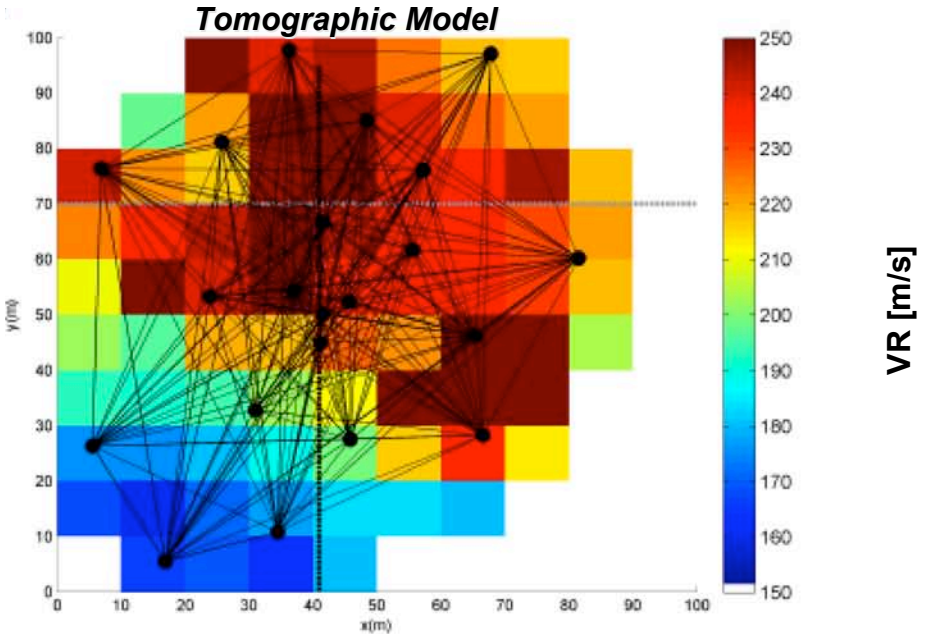


Parolai et al. (2005)

Green's Functions



Tomographic Model

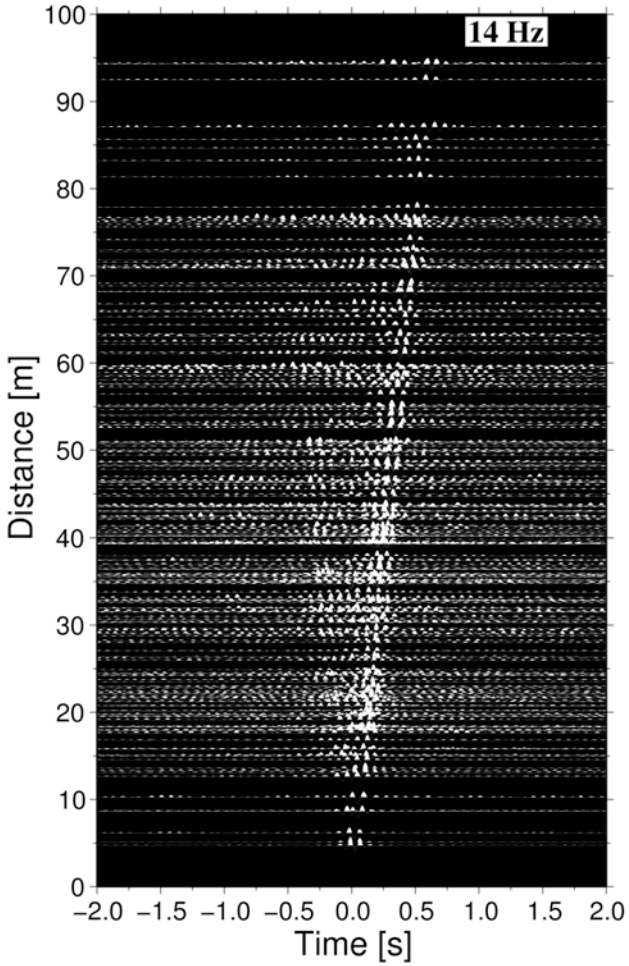


Picozzi et al. (2008)

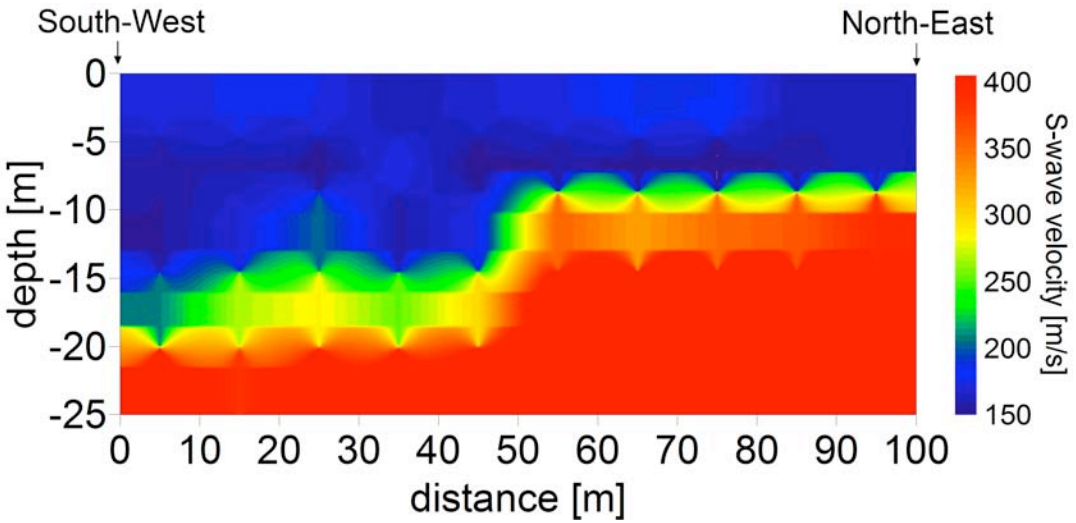
The challenge of subsoil investigation in Megacities

- 2D-3D velocity and quality factor structure from seismic noise

Green's Functions



Tomographic Model



Picozzi et al. (2008)