



IASPEI Commission on Education and Outreach

short report

International Trainings Course on Array Seismology

Arezzo, Italy

30 June to 3 July 2007

An “International Trainings Course in Array-Seismology” was created as part of the XXIV^o IUGG General Assembly held in Perugia (Italy) and requested by the IASPEI Commission on “Education and Outreach”. The Trainings course was held in Arezzo from June 30 - July 3, 2007, a few days before the beginning of the IASPEI-sessions in Perugia.

The event was organized by the Italian research institute “Istituto Nazionale di Geofisica e Vulcanologia” together with the Norwegian Research Institute NORSTAR (Kjeller, Norway), and German institutes, Institute of Geophysics (University of Hamburg), Institute for Geosciences (University of Potsdam), and the Seismological Central Observatory (Federal Institute for Geosciences and Natural Resources, Gräfenberg). Six research scientists from the above mentioned research institutes gave lectures on theory and applications (which comprised practical exercises), including the following topics:

- Introduction to Array Seismology (plane wave concept, shift and sum in time domain, semblance, vespagram, slowness power spectrum);
- Fundamentals of data processing (narrowband filtering and aliasing effect, beam forming, plane wave parameter estimation, f-k analysis);
- Concept and practical aspects of array design (array transfer function, resolution capabilities);
- Introduction to, and practice with the “Seismic Handler” Software;
- Exercises on data analysis of local, regional and teleseismic events;
- Direct imaging of spatio-temporal source processes;
- Review of microtremor/ambient vibration array analysis.

The trainings course was attended by 17 young seismologists coming from USA (2), Sweden (1), India (1), Taiwan (1), Italy (9) and Germany (3). As closing ceremony a press conference was organized with the participation of Peter Suhadolc (IASPEI secretary), Donella Mattesini (deputy mayor of the city of Arezzo) and Enzo Boschi (President of INGV).

The array trainings-course was sponsored by IASPEI, INGV and the City of Arezzo,

Arezzo, 10 July 2007, Thomas Braun (course chairman)