



The Abdus Salam
International Centre for Theoretical Physics



IAEA
International Atomic Energy Agency



*Ninth Workshop on
Three-Dimensional Modelling of
Seismic Waves Generation,
Propagation and their Inversion*

*22 September - 4 October 2008
(Miramare - Trieste, Italy)*

The Abdus Salam International Centre for Theoretical Physics (ICTP), in collaboration with the Department of Earth Sciences of the University of Trieste, will organize the Ninth Workshop on studies of seismic wave propagation in realistic three-dimensional earth models and on methods for inversion of seismic data. The Workshop will take place from **22 September - 4 October 2008**. It is also endorsed by the Commission on Earthquake Hazard, Risk and Strong Motion of the International Association for Seismology and Physics of the Earth Interior (Chair, Wu Zhongliang, Beijing), which will be represented by one of its members.

The Workshop will provide training in advanced methodologies of R&D in fundamental studies of the Earth's evolution and dynamics, and in numerous applied problems, such as prospecting for mineral resources, estimation and mitigation of possible seismic hazard, development of tsunami warning systems etc. These methodologies are based on a deep understanding of physics of seismic wave generation by natural and artificial sources and the propagation of these waves through complicated Earth structures.

The Workshop is a natural follow-up of a sequence of previous ones organized by the Trieste Science Centre (Italy) in 1992, 1994, 1996, 1998, 2000, 2002, 2004, 2006.

The Workshop will cover practically all aspects of the above mentioned problems, focusing both on the methodology and results of interpretation of seismic observations. An essential part of the programme will be devoted to new computational approaches for numerical simulation of seismic wave fields, for processing, management and interpretation of large volume observations.

A set of lectures will be delivered by winners of the Beno Gutenberg medal, established by the European Geosciences Union in recognition of the scientific achievements of Beno Gutenberg. The medal is reserved for individuals who have made outstanding contributions to Seismology.

Students will be able to become acquainted with the newest developments in all these directions, not only by listening to the intensive lecture courses, but also by active participation in computer demonstrations and exercises. Main topics of the exercises will be:

- *Frequency-time analysis;*
- *Modelling of seismic responses of layered media;*
- *Source mechanism interpretation using seismic wave data;*
- *2D and 3D seismic tomography;*
- *Seismological databases.*

Students are encouraged to make presentations of their recent results related to the school programme.

PARTICIPATION

Scientists and students from all countries which are members of the United Nations, UNESCO or IAEA may attend the School. As it will be conducted in English, participants should have an adequate working knowledge of this language. Although the main purpose of the Centre is to help research workers from developing countries, through a programme of training activities within a framework of international cooperation, a limited number of students and post-doctoral scientists from developed countries are also welcome to attend. A degree in Physics, Mathematics, Geophysics (theoretical or computational), Computer Science and/or similar disciplines is required.

As a rule, travel and subsistence expenses of the participants should be borne by the home institution. Every effort should be made by candidates to secure support for their fare (or at least half-fare). However, limited funds are available for some participants who are nationals of, and working in, a developing country, and who are not more than 45 years old. Such support is available only for those who attend the entire activity.

Requests for participation

There is no registration fee for attending the Workshop. The "Request for Participation" form is obtainable via Web server: <http://agenda.ictp.it/smr.php?1965> It should be completed, signed and returned by using **only one** of the following ways:

If sending an application by e-mail to smr1965@ictp.it please save and send file attachments in either PDF (preferably) or RTF zipped or Doc format.

If sending an application form by regular mail or courier it should be posted to:

9th Workshop on 3D Modelling of Seismic Waves Generation
(smr 1965 c/o Ms. G. De Meo)
the Abdus Salam International Centre for Theoretical Physics
Strada Costiera 11
34014 Trieste, Italy

(recent photograph & signature of the candidate are compulsory)

ACTIVITY SECRETARIAT: Telephone: +39-040-2240355 Telefax: +39-040-2240585

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ICTP Home Page: <http://www.ictp.it/>

Seismic Waves

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Deadline for:

requesting participation

28 May 2008