



Earthquake Tectonics and Hazards on the Continents

17 - 28 June 2013

Miramare, Trieste, Italy

The Abdus Salam International Centre for Theoretical Physics, will organize an Advanced Workshop on **Earthquake Tectonics And Hazards On The Continents** from 17 to 28 June 2013. It will be directed by J. Jackson (Univ. of Cambridge, UK), P. England (Univ. of Oxford, UK) and A. Aoudia (ESP, ICTP, Italy).

A series of high-impact earthquakes over the last few years has emphasized the stark contrast between the effects of earthquakes in rich and developing nations. The risk to human life is overwhelmingly concentrated in the developing world, and predominantly in continental interiors, with the Alpine-Himalayan region and central Asia being particularly threatened. Many communities and cities in that region are known to be vulnerable because of past earthquakes, but now have considerably larger exposed populations. Two particular geological effects contribute to continental Asia's special vulnerability: (1) Earthquakes in continental interiors typically occur on widely distributed faults that are poorly known and move relatively infrequently, and (2) Many human settlements in continental interiors concentrate (and then grow) in locations related to earthquake-generating faults, which control topography, water supply or trade routes. Improving knowledge and evaluation of earthquake hazard is linked to an understanding how continental tectonics works, which requires the full range of observational, theoretical and technical capabilities now available to the scientific community.

TOPICS:

The workshop-conference will inform, motivate and train its participants, so that each has a better understanding of the range of circumstances and knowledge related to earthquakes in the countries represented. The aim is to raise national capability in the vulnerable countries, through training and establishing an international network of scientists on which those countries can call to increase their resilience. The programme will involve a series of lectures, seminars, discussions and practical exercises in the following topics:

Continental tectonics: kinematics (fault patterns) and dynamics (driving forces) of continental deformation, and their relation to understanding earthquake-related hazard.

Monitoring and observational foundations of earthquake hazards: the essential modern toolkit, including earthquake seismology, satellite-based radar interferometry (InSAR), GPS, field- and space-based geomorphology and Quaternary geology, paleoseismology

Associated earthquake hazards: understanding landslides and tsunamis (even in 'continental' settings, such as the Mediterranean)

Modelling continental deformation and the earthquake cycle: using models to link geophysical, geological and geomorphological data to hazard evaluation

Communicating hazards: communicating with national, local and community organizations and individuals responsible for preparation, mitigation and education.

PARTICIPATION:

The Programme is specifically designed to benefit scientists in countries that are vulnerable to earthquake hazards, but who currently lack the local infrastructure, expertise, national capability or critical mass of researchers to be effective.

Scientists and students from all countries which are members of the United Nations, UNESCO or IAEA may attend the Workshop. As it will be conducted in English, participants should have an adequate working knowledge of that 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.

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. There is no registration fee.

HOW TO APPLY FOR PARTICIPATION:

The application form can be accessed at the activity website

<http://agenda.ictp.it/smr.php?2464>

Once in the website, comprehensive instructions will guide you step-by-step, on how to fill out and submit the application form.

ACTIVITY SECRETARIAT:

Telephone: +39-040-2240576 Telefax: +39-040-2240585

E-mail: smr2464@ictp.it ICTP Home Page: <http://www.ictp.it/>

Directors

J. Jackson

Univ. of Cambridge, UK

P. England

Univ. of Oxford, UK

A. Aoudia

ICTP, Italy

Co-Sponsors

Natural Environment Research Council, UK

Invited Speakers

K. Abdrakmatov	(Inst. of Seismology, Kyrgyzstan)
R. Bilham	(Colorado Univ. USA)
A. Copley	(Cambridge Univ. UK)
N. D'Agostino	(INGV, Rome, Italy)
A. Densmore	(Durham Univ. UK)
B. Parsons	(Oxford Univ. UK)
Z. Peizhen	(CEA, China)
R. Reilinger	(MIT, USA)
S. Sargeant	(BGS, UK)
K. Synolakis	(Univ. Crete, Greece)
M. Talebian	(GSI, Iran)
R. Walker	(Oxford Univ. UK)
A. Walpersdorf	(Grenoble Univ. France)
S. Wesnousky	(Nevada Univ. USA)
T. Wright	(Leeds Univ. UK)
J. Young	(Overseas Devel. Inst.)

DEADLINE
for requesting participation

1st April 2013

(if financial support and/or visa are needed)

1st May 2013

(if neither financial support nor visa are needed)

