

Workshop and Conference on EL NIÑO & TROPICAL OCEAN-ATMOSPHERE INTERACTIONS

***3 to 14 June 2002
Miramare, Trieste, Italy***

The Abdus Salam International Centre for Theoretical Physics (ICTP) is sponsoring a Workshop and Conference on "El Niño and Tropical Ocean-Atmosphere Interactions" to be held from 3 to 14 June 2002, in Trieste, Italy. The activity will be directed by G. Philander (Princeton Univ., U.S.A.) together with F. Molteni (ICTP, Italy), local organizer.

According to the forecasts by a number of research institutions, a new El Niño event is expected to develop in 2002. Twenty years after the intense and devastating El Niño event of 1982, which led to intensive research programmes to understand and predict this phenomenon, it is an appropriate time to assess what has been accomplished so far.

Workshop - 3 to 10 June 2002

The purpose of the workshop is to introduce students, post-doctoral fellows and young scientists to tropical ocean-atmosphere interactions and related phenomena such as El Niño. Mornings will be devoted to lectures, afternoons to projects, some involving computer modeling.

Conference - 11 to 14 June 2002

The number of studies devoted to multi-faceted El Niño is growing so rapidly that research on the many different aspects of this topic runs the risk of becoming fragmented and disconnected. The aim of the Conference is to synthesize recent results on El Niño and related phenomena. Given that there are several different perspectives that need to be reconciled, the sessions are designed to have ample time for discussions. Each daily session will consist of invited lectures, poster presentations, and panel discussions of poster presentations. A limited number of posters to be discussed will be selected based on abstracts submitted by conference applicants.

Main Topics

- How did El Niño of 1997-98 evolve? What were the roles of different dynamical mechanisms and phenomena (e.g. westerly wind bursts, oceanic Kelvin and Rossby waves, ocean-atmosphere interactions, the delayed oscillator, the recharge mechanism, normal and non-normal modes, non-linearities)? How predictable was that event? How predictable is El Niño in general?

- Is El Niño changing? Has there been a change in the properties of El Niño over the past hundred years? If so, to what extent are these changes attributable to noise, or to modifications of the background state? Why is each El Niño episode distinct?
- Ocean-atmosphere interactions in other worlds. What determines its properties in the different worlds created by coupled ocean-atmosphere models, and why do the various models behave so differently? The models appear to be very sensitive to small changes in certain parameter values; are the properties of the observed El Niño similarly sensitive? What do paleo-records say?
- The future of El Niño studies. What remains to be learnt about El Niño? How much longer can the exponential growth of the number of people studying El Niño, and the number of papers on that topic, continue?

Invited Keynote Speakers include: D. Anderson (ECMWF, Reading, U.K.), D. Barber (Duke University, U.S.A.), D. Battisti (JISAO, University of Washington, U.S.A.), P. Chang (Texas A&M University, U.S.A.), A. Fedorov (Princeton University, U.S.A.), S. Gadgil (Indian Institute of Science, India), D. Halpern (JPL, California Institute of Technology, U.S.A.), M. Latif (Max-Planck-Institute, Hamburg, Germany), D. Neelin (University of California at Los Angeles, U.S.A.), J. Slingo (CGAM, University of Reading, U.K.), T. Yamagata (IGCR, University of Tokyo, Japan), S. Zebiak (IRI-LDEO, Columbia University, U.S.A.).

The activity is intended primarily for scientists and graduate students working in the areas of Atmospheric Physics, Climatology, and Oceanography. It is open to scientists from all member countries of the United Nations, UNESCO and IAEA. Although the main purpose of the Abdus Salam ICTP is to help researchers from developing countries through a programme based on international cooperation, students and scientists from developed countries are also welcome to attend. The course will be conducted in English.

Limited funds are available for applicants from, and working in, developing countries only, to be selected by the organizers. There is no registration fee. Individuals interested in participating should submit an application (with optional poster abstract) to arrive no later than 15 March 2002.

The application form included in this bulletin can also be obtained either

- 1) By accessing the web page <http://www.ictp.trieste.it/~pwc> and downloading the form or
- 2) By sending an e-mail message to smr1411@ictp.trieste.it with the subject "get application". You will automatically receive the form via e-mail.

Please send your completed application form via e-mail, fax, or post to:

the Abdus Salam ICTP
El Niño 2002
(c/o P. Pieri) Strada Costiera 11, 34014 Trieste, Italy
Tel: +39 040 2240 374 / Fax: +39 040 2240 449
E-mail: smr1411@ictp.trieste.it

Any questions concerning the activity should be addressed to the secretary, at smr1411@ictp.trieste.it.

