

*Spring Colloquium
on the Physics of Weather and Climate:*
**REGIONAL WEATHER PREDICTION
MODELING AND PREDICTABILITY**

**8 - 19 April 2002
Miramare, Trieste, Italy**

The Abdus Salam International Centre for Theoretical Physics (ICTP) is sponsoring a Spring Colloquium on "Regional Weather Prediction Modeling and Predictability" to be held from 8 to 19 April 2002, in Trieste, Italy. The co-organizers of the colloquium are F. Mesinger (NCEP, U.S.A.), G. Kallos (Univ. Athens, Greece) and F. Giorgi (ICTP, Italy).

The purpose of the Colloquium is to address issues of current research aimed at understanding and advancing the predictive capabilities of regional weather prediction models. This is to be achieved through the following combination of activities:

*Workshop on
"Design and Use of Regional Weather Prediction Models"
8 - 16 April 2002*

This workshop will include tutorial lectures on regional weather prediction modeling, with emphasis on different aspects of active research, such as approach to numerical model design and parameterization of surface fluxes, boundary layer processes, and precipitation. There will also be lab sessions in which students will be taught how to install and run the limited area weather prediction ETA Model and will be encouraged to complete small projects.

The invited lecturers are S.C. Chou (CPTEC, Brazil), K. Droegemeier (CAPS, OU, U.S.A.), B. Ferrier (NCEP, Maryland, U.S.A.), G. Kallos (Univ. of Athens, Greece), J. Klemp (NCAR, Boulder, CO, U.S.A.), F. Mesinger (NCEP, Maryland, U.S.A.), N. Pinardi (Univ. of Bologna, Italy), S. Tibaldi (SMR-ARPA, Bologna, Italy), R. Walko (Colorado State Univ., U.S.A.), S. Zilitinkevich (Uppsala Univ., Sweden), M. Zupanski (Colorado State Univ., U.S.A.).

*Conference on
"Current Efforts Toward Advancing the Skill of Regional Weather
Prediction; Challenges and Outlook"
17 - 19 April 2002*

The conference will include invited and contributed papers on the following topics:

- Operational and data considerations: State-of-the-art and the future
- Basic numerical design: Expectations and results from various approaches, such as grid point Eulerian/semi-Lagrangian, nested spectral, stretched grids, finite volume/piecewise-polynomial and other

- Specific issues of the numerical design: Non-hydrostatic dynamics, vertical coordinate and topography representation, lateral boundary conditions
- Resolution vs. domain size: Benefits from "local" vs. regional models
- Physical parameterizations: Balance of efforts, convection parameterizations, explicit cloud physics, subgrid-scale transport
- Regional weather predictability: Error growth, value added by limited area models and downscaling; ensemble prediction; storm-scale prediction

The invited speakers for the Conference are A. Buzzi (ISAO-CNR, Bologna, Italy), S.C. Chou (CPTEC, Brazil), K. Droegemeier (CAPS, OU, U.S.A.), B. Ferrier (NCEP, Maryland, U.S.A.), G. Kallos (Univ. of Athens, Greece), J. Klemp (NCAR, Boulder, CO, U.S.A.), L. Lazic (Univ. Belgrade, Yugoslavia), F. Mesinger (NCEP, Maryland, U.S.A.), D. Orrell (Univ. College, London, U.K.), C. Schaer (ETH, Zurich, Switzerland), J. Shukla (COLA/IGES, U.S.A.), A. Simmons (ECMWF, Reading, U.K.), J. Steppeler (DWD, Germany), S. Tibaldi (SMR-ARPA, Bologna, Italy), P. Uden (SMHI, Sweden), R. Walko (Colorado State Univ., U.S.A.), S. Zilitinkevich (Uppsala Univ., Sweden), D. Zupanski (Colorado State Univ., U.S.A.).

The Colloquium is intended primarily for scientists and graduate students working in the areas of Atmospheric Physics and Chemistry, Climatology, Physics and Mathematics. 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 funding (including travel grants) for participation in the course is available for scientists from developing countries. There is no registration fee. Individuals interested in participating in the course should submit an application to arrive no later than **15 December 2001**.

The "**Request for Participation**" form included in this Bulletin can also be obtained either by:

- 1) Accessing the ICTP web page <http://www.ictp.trieste.it/~pwc/springcoll.html> and downloading the form or
- 2) Sending an e-mail message to smr1403@ictp.trieste.it, with the subject "get application". You will automatically receive the form via e-mail.

Please send your completed application form via electronic mail, telefax, or post to:

the Abdus Salam ICTP
Spring Colloquium on the Physics of Weather and Climate
(c/o P. Pieri) Strada Costiera 11, 34014 Trieste, Italy

Tel: + 39 040 2240-374 / Fax: + 39 040 2240-449 / E-mail: smr1403@ictp.trieste.it

Any questions concerning the Colloquium should be addressed to the secretary, at smr1403@ictp.trieste.it.