



5th ICTP Workshop on the Theory & Use of **REG**ional **CL**imate **Models**

May 31 - June 11, 2010

The Abdus Salam International Centre for Theoretical Physics (Abdus Salam ICTP) is organizing its *5th ICTP Workshop on The Theory and Use of **REG**ional **CL**imate **Models***, to be held from **May 31 to June 11, 2010**, in Trieste, Italy.

During the last decade the ICTP Earth System Physics section (ESP) has maintained, developed and distributed a state-of-the-art regional climate model (RegCM), continuing an effort started in the late eighties at the National Center for Atmospheric Research (NCAR) in Boulder, CO. After about 20 years from its **first development**, the RegCM has been used by a large scientific community including hundreds of users and a wide range of applications, such as paleoclimate, climate change, chemistry-climate and biosphere-atmosphere interactions, regional process studies. As in previous workshops of this series, this event is intended to provide lectures and extensive hands-on sessions on the theory of regional climate change and regional climate modeling as well as the use of the RegCM modeling system. In particular a new version of the model will be released, which includes, among other updates, the capability of coupling with the CLM land surface/biosphere scheme, gas-phase chemistry and a regional ocean model.

The workshop will also provide a forum for current and future model users to discuss relevant issues and formulate needs and priorities for further model development and dissemination. In addition, the workshop will discuss the new WCRP CORDEX project, with an aim toward organizing the RegCM community for significant participation in the project. It is planned to produce a *special issue of an international journal* from the papers presented at the workshop. In order to expedite the production of the special issue, *participants who plan to contribute to it are requested to submit an extended abstract of several pages detailing their work*, which will be discussed in a special session of the workshop. A limited number of participants is envisioned, with proven experience in climate modeling and strong interest in using the RegCM system for regional climate studies.

The workshop will cover the following *topics*:

- Climate change at the regional scale;
- Uncertainties in regional climate change projections;
- Regional climate modeling;
- New developments in the ICTP regional climate model (RegCM);
- New applications of the RegCM;
- First CORDEX experiment results and future plans.

PARTICIPATION

The workshop is intended for scientists and graduate students working in the areas of Atmospheric Physics and Dynamics, Climatology, Oceanography, Physics and Mathematics. It is open to scientists from all member countries of the United Nations, UNESCO and the IAEA. The main purpose of the Abdus Salam ICTP is to help researchers from developing countries through a program based on international co-operation. The activity will be conducted in English.

Limited funding (including travel grants) for participation in the workshop is available for scientists from developing countries. *Registration is free-of-charge for all attendees.*

APPLICATION

The "On-line Application" form can be accessed at:

ICTP agenda page:

http://cdsagenda5.ictp.trieste.it/full_display.php?smr=0&ida=a09151

(Please save and upload file attachments in either: **RTF format, .doc or .pdf**)

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Directors

R. Anyah (U. Connecticut, USA)
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W. Gutowski (Iowa State U., USA)
F. Giorgi (ESP-ICTP)

Invited Speakers

M. Ashfaq (Oak Ridge National Lab., USA)
E. Coppola (ESP-ICTP)
S. Cozzini (SISSA)
S.K. Dash (I.I.T - Delhi, India)
E. Eltahir (MIT, USA)
X. Gao (Nat'l Climate C., Beijing, P.R. China)
T. Halenka (Charles U. Prague, Czech R.)
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Laboratory Instructors

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Application Deadline

January 31, 2010