

United Nations Cultural Organization

8th ICTP WORKSHOP ON THE THEORY AND USE OF

REGIONAL CLIMATE

Models

23 May - 3 June 2016 Miramare, Trieste, Italy



The Abdus Salam International Centre for Theoretical Physics (ICTP) is organizing its **"Eighth ICTP Workshop on The Theory and Use of Regional Climate Models"** to be held on 23 May - 3 June 2016 in Trieste, Italy.

The directors of the Workshop are **F. Giorgi** (ICTP, Italy), **E. Coppola** (ICTP, Italy), **T. Cavazos** (CICESE, Mexico), **X. Gao** (CMA, China).

Regional climate models (**RCMs**) are widely used tools to produce high resolution climate information at regional scales, and can be run at resolutions of a few km which allow explicit description of convection processes. The ICTP regional climate modeling system, **RegCM**, is one of the most used **RCMs** worldwide. Its latest version, **RegCM4**, has been recently augmented in several aspects, in particular towards the application of the model to very high resolution, convection permitting, simulations. Among the main model improvements in this direction are the implementation of non-hydrostatic dynamics, the refinement of an advanced explicit cloud microphysics scheme and the full coupling with the **MIT** ocean model, the **CHYM** hydrological model, the **CLM4.5** land-surface model including interactive vegetation and an augmented version of a chemistry/aerosol module.

As in previous workshops of this series, this event will provide lectures and extensive hands-on sessions on



the theory of regional climate change and regional climate modeling as well as on the use of the **RegCM4** modeling system. The focus of the present workshop will be on the application of the **RegCM4** to high resolution experiments, in particular within the framework of the international program **CORDEX** (**CO**ordinated **R**egional **D**ownscaling **EX**periment). During the workshop, the new features of the model will be described and tested, and a new version of the model will be released. In addition, the contribution of the **RegCM** community to the next phase of the **CORDEX** program will be discussed. The workshop will also include a special session on the interactions be-

tween air quality, climate processes and climate change in diverse region of the world under the framework of the **EU REQUA** (Regional climate-air quality interactions) project.

The workshop is also aimed at providing a forum for current and future model users to discuss relevant issues and formulate needs and priorities for further model development and dissemination. A limited number of participants are envisioned, with proven experience in climate modeling and a strong interest in using the **RegCM4** system for regional climate studies.

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 IAEA. The activity will be conducted in English, Limited funding (including travel grants) for participation in the conference is available for scientists from developing countries. No registration fee is required.

Directors:

F. Giorgi (ICTP, Italy)

E. Coppola (ICTP, Italy)

T. Cavazos (CICESE, Mexico)

X. Gao (IAP/CAS, China)

Invited Speakers

N. Ban (ETH, Switzerland) M. Bukovsky (NCAR, USA) L. Caporaso (CMCC, Italy) R. Farneti (ICTP, Italy) I. Guettler (DHMZ, Croatia) E. S. Im (MIT- SMART, Singapore) R. Porfirio da Rocha (U. Sao Paulo, Brazil) F. Stordhal (U. Oslo, Norway) M. B. Sylla (WASCAL, Burkina Faso) U.U. Turuncoglu (ITU, Turkey) N. van Lipzig (KU Leuven, Belgium) P. Zanis (U. Thessaloniki)

How to apply for Participation:

The on-line application form can be accessed at ICTP activity website:

http://indico.ictp.it/event/7613

Once in the website, comprehensive instructions will guide you step-by-step, on how to fill out and submit the application form. Please send all file attachments in Word or PDF format.

Contact Information:

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ICTP Home page: <u>http://www.ictp.it</u>

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Laboratory Instructors:

G. Giuliani (ICTP) L. Mariotti (ICTP) U.U. Turuncoglu (ITU, Turkey) C. Torma (ICTP) R. Fuentes Franco (ICTP) R. Farneti (ICTP) F. Di Sante (ICTP) F. Solmon (ICTP)

APPLICATION DEADLINE

29 February 2016

