



# Autumn School on "Application of RegCM over China and East Asia for Climate Impact Studies"

September 2-6, 2013

(Beijing - P.R. China)

The Abdus Salam International Centre for Theoretical Physics and the National Climate Center, China Meteorological Administration (NCC/CMA), in collaboration with the Adapting to Climate Change in China (ACCC), National Science Foundation of China (NSF), are jointly organizing the Autumn School on "Application of RegCM over China and East Asia for Climate Impact Studies", to be held in Beijing, P.R. China, from September 2 to 6, 2013.

Atmosphere-ocean coupled General Circulation Models (AOGCMs) are the widely used tools in simulating present climate and conduct sensitivity experiments. In particular, it is the primary tools used for climate change projections. However, due to limited computer capabilities, the resolution of present day AOGCMs is usually not high enough to represent the details of coastline, small-scale topography, surface characteristics and other local forcing. This is a major drawback for the community impact modellers that are typically asking for much higher resolution climate model output to be feed inside the impact models.

Located in the East Asian monsoon region, China is a country with complex topography. Most of today's AOGCMs tend to exhibit a poor performance in simulating the climate in China, especially for precipitation. Previous experiments have shown that regional climate models (RCMs) with a higher resolution can greatly improve the simulation of the East Asia monsoon climate. Furthermore, when applied in climate change projection, RCMs not only can introduce finer scale topographically-induced structures in the climate change signal, but can also simulate some significantly different regional scale change patterns compared to the driving GCMs. Such a finer scale structure and detailed climate change information is essential when the regional model output has to be used as input for example of a hydrological model to more realistically reproduce the discharge characteristics of the basin.

In order to aid scientists in Eastern Asian developing countries to achieve a better working knowledge of the RegCM and its use related to the impact modelling community, this workshop aims at providing lectures and discussions on:

- Example of applications of RegCM in East Asia/China and other regions;
- Example of applications of other RCMs over East Asia;
- Introduction of the latest version of the RegCM4.3--new packages, capabilities, and performances;
- Discussion of possible reasons of the model deficiencies in simulating present climate;
- Discussions and plans on the possible improvements of the model over the region;
- Example of coupling of the RegCM with impact models (hydrology, agriculture, health).

#### **PARTICIPATION:**

Attendance is open to scientists and graduate students working in the areas of Atmospheric Physics and Dynamics, Climatology, Oceanography, Physics and Mathematics from all countries that are members of the United Nations, UNESCO or IAEA from the Asian region. As the Workshop 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 other regions 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. **Registration is free-of-charge for all attendees.**

**APPLICATION:** The "On-line Application" form can be accessed at the:  
**ICTP activity website:** <http://agenda.ictp.it/smr.php?2391>  
inclusive of a **step-by-step instruction guide**.

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#### **co-sponsors**



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#### **INVITED SPEAKERS**

##### **From outside China:**

**Prof. Filippo Giorgi** (ICTP)  
**Dr. Laura Mariotti** (ICTP)  
**Dr. Liqiang Sun** (N. Carolina S. U., USA)  
**Dr. Paolo Ruti** (ENEA-Rome, Italy)

##### **From China:**

**Dr. Shourong Wang** (NCC, CMA)  
**Dr. Shuyu Wang** (Nanjing U.)  
**Dr. Zhenghui Xie** (IAP, CAS)  
**Dr. YinLong Xu** (IEDA, CAAS)  
**Dr. Tianjun Zhou** (IAP, CAS)

**DEADLINE**  
**June 30, 2013**

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