3rd International Lund Regional-Scale Climate Modelling Workshop

21st Century Challenges in Regional Climate Modelling

Lund, Sweden
16-19 June 2014
Scope

The workshop is a follow-up to the regional climate modelling workshops held in Lund, Sweden in 2004 and 2009. Research on regional climate modelling has remarkably expanded during the last few years. The aim of the Workshop is to review the overall and specific developments and progress in regional climate modelling over the last five years, to discuss pertinent open issues and challenges, and to provide input for new developments on the field. The meeting will cover a wide range of regional climate related topics, from basic modelling research on numerics, resolution and parameterisation to model evaluation and relevant observations, ensembles and applications. The workshop will also provide opportunities for working meetings for networks and projects. The workshop is jointly organised by Lund University, SMHI, DMI, HZG and the International Baltic Earth Secretariat.

Invited and contributed papers will be presented in plenary complimented by extended poster sessions. Workshop language will be English.

Topics

Regional Climate and Earth System Models
Coupled modelling at regional scales is advancing, with RCMs evolving to coupled models of atmosphere-ocean-sea ice, climate-vegetation, climate-biogeochemistry and aerosols. How can they advance research on climate feedback at regional scales? Development and comparison of approaches to modelling regional climate including global models with regional refinement (high resolution and variable resolution global models) is also considered under this topic.

Very-high-resolution RCMs
The resolution of RCMs continues to increase. More models are now being applied at resolutions of 5-10 km, and some down to 1-2 km. This requires adaptation and new developments in dynamics and physical parameterizations, including non-hydrostatic models. It also involves the development and use of regional climate models and statistical downscaling approaches for local-scale investigations, e.g. urban areas.

Challenges for RCM Evaluation and Application
Developing RCMs with new components and higher resolution imply new model evaluation issues, such as the need for very-high-resolution evaluation data. Relevant developments in advanced statistics, hybrid downscaling approaches, nudging techniques, performance-based metrics and comprehensive added value aspects are fundamental issues to be explored under this topic. In addition to better insight to model performance, evaluation can also enable bias corrections in scenario analysis and provision.

RCM Ensembles
Coordinated experimentation with RCMs is advancing. This brings about many pertinent issues. What is the best design for a regional climate model ensemble? What determines the choice of GCMs and RCMs? Is weighting of ensemble members feasible? Can we account for model independence? Does the ensemble variance provide a good estimate of ‘uncertainty’ in the regional climate projections? Under this topic, use of RCMs in seasonal-to-decadal prediction and lessons learnt from present and former coordinated studies (e.g. CORDEX) are timely.
Call for Papers

Contributions in accordance with the topics of the Workshop, both oral or as poster, are welcome. Complete abstracts in English, maximum of two pages, including figures, tables or diagrams, are requested to be submitted to the International Baltic Earth Secretariat by all participants wishing to give a presentation. After the Workshop, authors may submit a full paper for a special issue in an international journal.

Guidelines for Abstract Preparations

Abstracts must be submitted by e-mail using the electronic abstract template which is available at the Workshop website: www.baltic-earth.eu/RCM2014. Participants are advised to strictly follow the format given in this template. Other formats or paper/fax copies will not be accepted.

Abstracts shall be submitted to the International Baltic Earth Secretariat at balticearth@hzg.de before 15 March 2014.

Abstract Deadline: 15 March 2014

The Scientific Committee will review the submitted abstracts and the authors will be notified accordingly before 31 March 2014. An abstract volume will be distributed at the Workshop.

Scientific Committee

- Babatunde Abiodun (South Africa)
- Raymond Arritt (U.S.A.)
- Lars Bärring (Sweden)
- Michel Déqué (France)
- Jason Evans (Australia)
- Jens Hesselbjerg Christensen (Denmark)
- Song-You Hong (South Korea)
- Elizabeth Kendon (U.K.)
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- René Laprise (Canada)
- Ruby Leung (U.S.A)
- Markku Rummukainen (Sweden)
- Burkhardt Rockel (Germany)
- Silvina Solman (Argentina)
- Izuru Takayabu (Japan)
- Shuyu Wang (China)

Organizing Committee

- Markku Rummukainen (Sweden)
- Lars Bärring (Sweden)
- Marcus Reckermann (Germany)
- Burkhardt Rockel (Germany)
- Jens Hesselbjerg Christensen (Denmark)

Workshop Venue

Elite Hotel Ideon
Scheelevägen 27
223 63 Lund
Sweden

The Conference Hotel is located northeast of the University quarters, within walking distance to most Hotels and the city centre (about 2.5 km). There are also regular bus services to downtown.

Time Line

- Abstract Deadline.............................................15 March 2014
- Notification of Authors.....................................31 March 2014
- Registration and Fee Payment Deadline.............15 April 2014
- Hotel pre-Booking Deadline..............................30 April 2014
- Workshop.......................................................16-19 June 2014

Workshop Organizers and Sponsors (list may be amended)

www.baltic-earth.eu/RCM2014
**Workshop Fee and Registration**

Registration is done via the Workshop website by using the electronic registration tool.

**Registration Deadline: 15 April 2014**

The Workshop fee is 2300 SEK (approx. 250 €), to be paid by 15 April. A reduced fee of 1200 SEK applies to students with proven status. After 15 April, an increased fee of 2800 SEK (1700 SEK for students) will be charged. The fee must be transferred in Swedish currency, see the website for payment details. The fee covers the Workshop venue, the Workshop abstract volume, the ice breaker, the daily lunch including morning and afternoon refreshments as well as the Workshop Dinner. The number of Workshop participants will be limited to 200, on a first come, first serve basis (priority will be given to those who submit an abstract). Participants from developing countries as well as students and early career scientists may apply for support. Details on registration, payment and support options and conditions are available at the Workshop website.

**Social Events**

- Monday, 16 June: Ice Breaker (included in fee)
- Tuesday, 17 June: Workshop Dinner (included in fee)
- Thursday, 19 June: Excursion (not included in fee)

A guided city walk through Lund will be organized.

**Accommodation**

Rooms have been pre-booked in various hotels in Lund until 30 April 2014. A list of hotels is available at the Workshop website. Be sure to make your booking timely.

**Travel Information**

Lund is easily reachable. International connections are mostly through Copenhagen Kastrup Airport (CPH), which has flights to many destinations worldwide. There are frequent railway connections between CPH and Lund (every 20 min), taking less than 1h. Another nearby airport is Malmö Sturup (MMX) with a limited number of domestic and international flight connections. Sturup has a convenient bus connection to Lund.

For travel and tourist information about Lund, see: http://wikitravel.org/en/Lund, or http://www.lund.se/

**Details on abstract submission and registration procedures and the Workshop in general are available at the Workshop website**

www.baltic-earth.eu/RCM2014

General questions related to the Workshop may be directed to the International Baltic Earth Secretariat

balticearth@hzg.de