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Organising Committee

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Organising Institutions



Danmarks Meteorologiske Institut

Sveriges meteorologiska och hydrologiska institut



Lunds universitet

**Helmholtz-Zentrum Geesthacht**  
Zentrum für Material- und Küstenforschung

Time Table

2 <sup>nd</sup> Announcement	October 2013
Abstract Submission	January 2014
Registration and Hotel Reservations	April 2014

**GEOCENTRE  
PALAESTRA ET ODEUM  
Lund University**  
Lund, Sweden



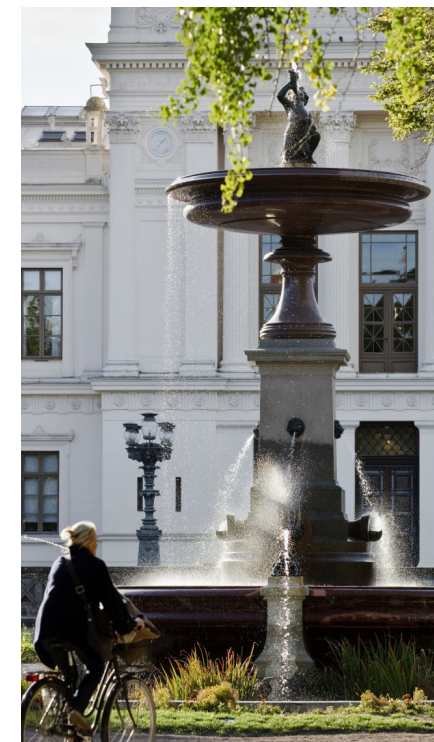
Lund is located in southern Sweden close to Copenhagen and Malmö. Copenhagen Airport Kastrup has flight connections to many destinations worldwide. Frequent connections between Kastrup and Lund are by bus or railway, taking 45 minutes. Another nearby airport is Malmö Sturup with a limited number of domestic and international flight connections.



Further Information

Details on registration procedures and the Workshop in general will be available at the BALTEx website:  
[www.baltex-research.eu/RCM2014](http://www.baltex-research.eu/RCM2014)

**21<sup>st</sup> Century  
Challenges in Regional  
Climate Modelling**



**Lund, Sweden  
16 - 19 June 2014**



**First Announcement**

The workshop is a follow-up to the regional climate modelling workshops held in Lund, Sweden in 2004 and 2009. Developments and progress achieved in the last five years will be presented and discussed along with open issues and expected future challenges related to regional climate modelling. The meeting will cover a wide range of RCM-related topics, from basic research - such as theoretical aspects of numerics and parameterisations - to applications. The workshop is jointly organised by Lund University, SMHI, DMI and HZG with support by the International BALTEX Secretariat.

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



### Associated Programmes



### 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-biogeochimistry 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 need of very-high-resolution evaluation data. Relevant developments in advanced statistics, hybrid downscaling approaches, 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.



Lund is a city in Skåne, southern Sweden, with about 100,000 inhabitants. Lund has a history dating back to 990, when the Viking King Svend Tveskaeg founded the city at the site of the village of Uppåkra. It was later moved by only some five kilometres to its present location, which, on a hill and on the other side of a fjord, granted considerable defensive advantages.

Lund is located less than ten kilometres from the sandy shore of the Öresund Straits. From the top of the hill Sankt Hans Backar it is possible to see Copenhagen, the capital of Denmark.



Lund University was founded in 1666. Today it is an international centre for research and education with approximately 39,000 students. Lund University is respected as one of the best Universities in Sweden. The culture in Lund is characterized by the large student population. Hence, the city has a young and vivid cultural life with many bars and restaurants.

#### Photo credits

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