

rossby centre news

SMHI

A NEWSLETTER FROM THE ROSSBY CENTRE

New version of high resolution climate model

After several years of work the Rossby Centre regional climate model has now been updated to a fourth version. RCA4 will be an important part in the CORDEX project, where many countries cooperate to produce high resolution climate simulations for many parts of the world. About this and much more you can read in the latest Rossby Newsletter which contains a number of articles outlining recent activities at the Rossby Centre.

We hope this finds you well and wish all our readers and collaborators a good summer.

Colin Jones
Head of Rossby Centre



Rossby Centre regional atmospheric model, RCA4

A new version of the Rossby Centre regional atmospheric model, RCA4, will be used for the upcoming downscalings for CORDEX using CMIP5 GCM's as boundary conditions. Since RCA3, RCA has undergone both physical and technical changes. The ambition has been to make the code easy to maintain and more user-friendly.

[Read more about the new version of RCA](#)



Volcanoes in EC-EARTH

Volcanoes, although occurring intermittently and highly localized, are nevertheless an important driver for the global climate. Volcanoes are not explicitly represented in the EC-EARTH model. Like in other climate models, the effects of volcanoes are parameterized as an extra source of aerosols in the stratosphere.

[Read more about volcanoes in EC-EARTH](#)



The effect of melt ponds on Arctic climate in EC-EARTH

Melt pond formation is an important driver of sea ice surface albedo during summer, and therefore important to the surface heat budget of the Arctic Ocean. Most global coupled models do not include melt ponds and tend thus to overestimate summer sea ice albedo. A melt pond scheme is now implemented into the global coupled model EC-Earth

[Read more about the effect of melt ponds on Arctic climate in EC-EARTH](#)



How can vegetation affect the climate?

By mapping historical land use are researchers hoping to get more knowledge about how vegetation affects the regional climate. The north European research network Landclim has recently held a workshop at SMHI in Norrköping.

[Read more about the Landclim workshop](#)

ABOUT THE ROSSBY CENTRE

The Rossby Centre pursues research on climate processes and the behaviour of the climate system. The principal tools are the global and regional climate models developed within the research unit.

[Rossby Centre at www.smhi.se](http://www.smhi.se)

CONTACT AND DATA REQUEST

[Climate scenario data](#) from the Rossby Centre is available via a web application or as netCDF-files for download. The Rossby Centre can be reached via rossby.data@smhi.se, where requests for data and other material can be made.

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