rossby centre

SMHI

ROSSBY CENTRE NEWSLETTER, DECEMBER 2009

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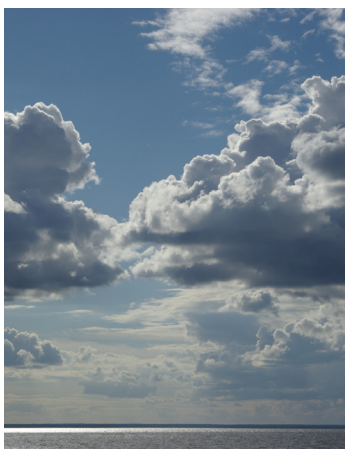


Rossby Centre Day 2009

Several prominent international climate researchers contributed during the Rossby Centre Day which was arranged at the Swedish Meteorological and Hydrological Institute on October 21. The theme was "Using regional climate scenarios in impact and adaptation studies".

http://www.smhi.se/forskning/forskningsomraden/klimatforskning/1.8829

New research funds for SMHI

SMHI has recently been granted new research funds from the Swedish research council FORMAS. Within the framework of strategic research areas SMHI will lead two large projects; advanced simulation of Arctic climate change and impact on the Northern regions, and hydrological climate change impact scenarios. SMHI will also take part in a project about clouds and aerosols.

http://www.smhi.se/forskning/forskningsomraden/klimatforskning/1.8925

Regional Arctic scenario experiments with RCAO

The Arctic sea ice extent has been very low the last couple of years, a scenario which was not projected to occur before 2030 according to the latest IPCC report. Recently run simulations with the Rossby Centre Atmosphere Ocean climate model (RCAO) suggests that the Arctic will be for the first time almost without sea ice in late summer around 2040 and that no substantial recovery takes place after 2060 any longer.

http://www.smhi.se/forskning/forskningsomraden/klimatforskning/1.8830

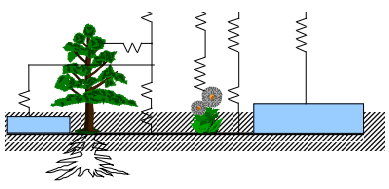
Application of RCA for assessment of climate change impact on water resources in the Pungwe Drainage Basin, Mozambique/Zimbabwe

One of the major challenges with climate change is its impact on water resources and extreme hydrological events. In addition to the surface heterogeneity, the primary rain-bearing systems over the majority of tropical land regions are mesoscale and their simulation benefits from high resolution. In a project financed by Sida through UNDP, regionally-detailed climate change scenarios were provided for southern Africa region up to 2050, and applied in hydrological modelling for the Pungwe River basin in dialogue with regional actors.

http://www.smhi.se/forskning/forskningsomraden/klimatforskning/1.8840

The Rossby Centre Regional Climate Model RCA3: Model description and performance

The physics in the Rossby Centre Regional Climate Model RCA3 has been improved with a tiled surface scheme. In general, RCA3 now shows equally good, or better, correspondence compared to previous model versions. Some biases with respect to observation still exists though.



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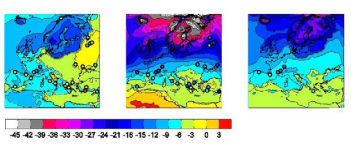
Simulating climate conditions in Europe at the time of the Last Glacial Maximum with RCA3

In a recently finished project the Rossby Centre contributed with regional climate model simulations of past climates including a cold glacial climate corresponding to that of the Last Glacial Maximum (LGM, 20.000 years BP). Here, we summarize the work on investigating the regional climate at LGM.



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CONTACT AND DATA REQUEST

Information about the Rossby Centre can be found at www.smhi.se
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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