



Modelling last glacial maximum climate variability with a high resolution regional climate model

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The last glacial maximum climate is modelled with a fully coupled AOGCM for several hundred years. Selected periods of this simulation are dynamically downscaled with a regional climate model with 50 km resolution over Europe. The high resolution of the regional simulation is important for a better representation of the boundary conditions (e.g. the topography associated with the ice sheet covering Scandinavia during this period) which in turn leads to a more realistic simulation of the atmospheric circulation, in particular baroclinic eddies, and precipitation.

The long time period of the AOGCM simulation makes it possible to study the variability of the simulated climate. Periods within the AOGCM simulation with large variability and/or rapid changes are studied in more detail with the regional model.