



EC-EARTH: an Earth System model based on ECMWFs modelling system

W. Hazeleger (1), K. Wyser (2) and EC-EARTH team

(1) KNMI, (2) SMHI

In a new initiative, a number of member states of ECMWF are developing ECMWFs Integrated Forecasting System into an earth system model, nicknamed EC-EARTH. Following a seamless prediction strategy, the weather forecast model that is also used for seasonal forecastst, will be used for longer term integrations. Different than current climate models, the model contains parameterizations developed for weather forecast models. Also, it has data-assimalation capacities which makes it ideally suited for decadal prediction experiments.

The first version of the system will consist of ECMWFs IFS atmosphere model, the OPA ocean and sea-ice model, the TESSEL land component, the TM atmospheric chemistry component and the OASIS coupler. In this presentation, the strategy of the model development will be outlined as well as first results in which ECMWFs (cycle31r2, T95-40 layers resolution) atmosphere model has been used for long-term integrations for present-day and future climate.