



Assessment of the climate change signal for Central and Eastern Europe

S.Pfeifer, D.Jacob

Max Planck Institute for Meteorology (susanne.pfeifer@zmaw.de)

A set of climate change simulations for Europe including three different SRES emission scenarios (A1B, B1, and A2) and three realizations of one of these (A1B) has been compiled using the regional climate model REMO (Jacob, 2001). The regional model has been driven and initialized by the global model ECHAM5/MPI-OM. The model domain encloses Europe with a horizontal grid resolution of 0.44° and the simulations cover the period from 1950 to 2000 (control simulations) and 2001 to 2100 (scenario simulations). In this presentation, analyses will be shown for different Central and Eastern European Countries and for the Danube River Catchment with respect to possible future changes of components of the hydrological cycle. This region is of special interest as it is located at the border of a Northern European region where previous studies (e.g. PRUDENCE, ENSEMBLES) showed that the climate is likely to become warmer and slightly wetter until 2100 and a Southern European region where the climate is expected to become warmer and dryer until the end of the century. The dataset offers the possibility to assess the climate change signal of the different emission scenarios as well as the model uncertainty through multiple realizations of one emission scenario for a sensitive region where the climate change signal is still quite uncertain.