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Daily extremes from the ENSEMBLES regional models: a comparison between the ERA-40 driven integration and the present period of the A1B GCM-driven simulations

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The European project ENSEMBLES has produced a set of Regional Climate Model (RCM) integrations, driven by the ECMWF ERA-40 re-analysis and by a range of GCMs under the SRES A1B emission scenario

Seasonal extremes from the daily distributions of precipitation and minimum and maximum temperatures extracted from these RCM integrations have been estimated by Extreme Value Analysis and compared with the same indices estimated from the ENSEMBLES RT5 observational dataset. In addition to the assessment of the model biases, it is also possible to evaluate the importance of the driving boundary conditions, which determine the large scale circulation, with respect to the smaller scales, resolved or parametrised by the regional models.

Preliminary results indicate the RCMs give a good description of these extremes and that the small scales dominate over the lateral boundary conditions. A more comprehensive assessment of these issues will be presented at the conference, where results from the full set of ENSEMBLES RCM integrations will be presented.