



High-resolution climate change simulations within EURO-CORDEX: Projected changes in climatic extremes under a low emission scenario

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Within the EURO-CORDEX initiative a first set of downscaled climate change projections at a horizontal resolution of 12.5 km has been completed for the RCP emission scenarios. Up to now the majority of the simulations follow the emission pathways of the RCP4.5 and RCP8.5 scenarios and only a smaller number of simulations downscaling the RCP2.6 scenario exists. Also, the analysis in so far published papers on the projections of the EURO-CORDEX ensemble is focused on the higher emission scenarios. However, for policy makers it is of special importance to identify the magnitude of future climate change that would already occur under a low emission scenario like the RCP2.6 scenario.

In this study, we therefore want to present the results of the new high resolution climate change projections for European impact research within the WCRP EURO-CORDEX initiative with focus on RCP2.6 simulations. We will compare the results of the RCP2.6 simulations with respect to the other two scenarios. Our analysis will encompass projected changes in the large scale patterns of temperature and precipitation as well as their statistical distribution of projected changes for selected regions in Europe. In addition, projected changes in climatic extremes of the RCP2.6 projections will be highlighted and compared to the other two RCPs.