



## **High-resolution retrospective precipitation climatology for the Euro-CORDEX domain with the Weather Research and Forecast model**

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The Weather Research and Forecast model (WRF) is used to downscale the ECMWF ERA-Interim reanalysis over the Euro-CORDEX domain at horizontal grid spacing of  $0.04^\circ$  in a nested domain covering continental western Europe. Explicit convection is used. A high resolution climatology of precipitation is derived from 1979 to 2008. Our results are compared with available observational precipitation datasets (including EOBS, CRU, GPCC), in particular in terms of the spatial distribution of seasonal means and the statistics of extreme precipitation. A particular focus is on the Alpine region with a comparison with the EURO4M and HISTALP datasets. We explore the role of resolution comparing our results with a second WRF simulation in the same period at coarser horizontal resolutions of  $0.11^\circ$  with parameterized convection.