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Influence of the North Atlantic on European climate extremes

Kerstin Prömmel and Ulrich Cubasch

Freie Universität Berlin, Institute of Meteorology, Berlin, Germany (kerstin.proemmel@met.fu-berlin.de)

With the help of simulations performed with the Max Plank Institute for Meteorology Earth System Model (MPI-ESM) we try to understand the processes and mechanisms leading to European climate extremes. These extremes include for example cold, warm or snowy winters. For the analysis of the underlying mechanisms we concentrate on modes like the North Atlantic Oscillation (NAO) and the Atlantic Multi-decadal Variability (AMV), which are supposed to influence each other. The NAO has a strong impact especially on European winter and the changes in minimum temperature are even larger than in maximum temperature. The influence of the spatial resolution of MPI-ESM on the results is also investigated.