



Large-Scale atmospheric variability over the Euro-Atlantic. Comparison between IPCC models and reanalysis data

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The suitability of some global climate models included in the Intergovernmental Panel on Climate Change 4th Assessment Report (IPCC-4AR) is confronted against the NCEP-NCAR reanalysis. The aim is to select models that best represent the spatial and temporal variability over the Euro-Atlantic zone for use in climate change studies. The comparison was carried out for the sea level pressure, jet stream and moisture fluxes of the 20th century experiments. Spatial and temporal performance is analysed on the main variability modes obtained by using spectral and Empirical Orthogonal Function analyses. Due to the relationships between large-scale and regional-scale, and by means of downscaling methods, one can derive precipitation and temperature over a particular region. Therefore, the results of our study could be used to learn about the effect of climate change on regional climate by projecting the scenarios of different models onto the smaller area.