



Trend of the North Atlantic Oscillation (NAO) under climate change

C. Rodriguez-Puebla (1), S. Nieto (2)

(1) Dept. of Atmospheric Physics. University of Salamanca. Spain (2) Dept. of Applied Mathematics. University of Salamanca. Spain

The NAO is a recurrent pattern of atmospheric circulation that we have characterized by the leading EOF from Sea Level Pressure anomalies in the North Atlantic area. The NAO is associated with changes in the wind and moisture fluxes and the NAO fluctuations affect precipitation, temperature and agriculture over the Iberian Peninsula. Research regarding the trend of the NAO in the past and future has become of great interest because the positive trend observed could be attributed to climate change. First, we assess the ability of the Coupled Models Intercomparison Project (CMIP3) models for the 20CM3 to simulate the NAO by comparing them with the NCEP/NCAR reanalysis data in the temporal and spectral domain. Then, we compare the trend of the NAO for the 21st century using different scenarios with the corresponding trend for the 20th century.