

# **The Western Mediterranean Oscillation (WeMO) effect on the sunshine duration variability in Iberian Peninsula**

J.A. Lopez-Bustins and **A. Sanchez-Lorenzo**

Group of Climatology, University of Barcelona, Catalonia, Spain (jlopezbustins@ub.edu / Fax: +34 93-4498510 / Phone: +34 93-4409200 Ext. 3210)

Although the sunshine duration variable has been recently measured among the Iberian meteorological observations, at least 31 series are available throughout peninsula for the period 1971-2000. They have been correlated with both NAO and WeMO indexes to be compared during the cold half of the year. Afterwards, the analysis has been also performed for the rainfall of the same 31 observational points. The main results show a stronger WeMO influence on sunshine duration than on precipitation in autumn months. In contrast, in winter months the WeMO effects on both variables are quite similar. February is the winter month when the eastern Mediterranean façade is largest explained by the WeMO over NAO in both variables. In addition, it is found an opposed winter pluviometric behaviour between the Bay of Biscay and the south-eastern Iberian Peninsula. On the other hand, this relationship is also detected in sunshine duration but it is not significant.