

Observed changes in Weather Types over Spain

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It is known that the observed variability of meteorological phenomena, at daily timescales, is due to changes in the atmospheric state and, therefore, alterations in the observed phenomenology are just an effect of changes in the atmospheric variability.

In this work we have compared daily surface observations of extreme temperatures, precipitation and snow occurrence (from the AEMet's network), in two different periods of time (1957-1979 and 1980-2002) in mainland Spain and the Balearic Islands, so as to identify and analyze changes in the daily atmospheric variability. In order to carry this out, a joint probabilistic analysis of Weather Types (WTs) and meteorological phenomena has been made.

The results show that there are significant differences, between the two periods of study, for both, surface observations and WTs' behavior.