

Establishment of a ranking of meteorological extreme events in the Iberian Peninsula from objective methods

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In this work an objective classification of synoptic scale events is performed from a purely meteorological and climatological perspective. This work is derived from a previous study made for the East of the United States. The NCEP-NCAR reanalysis dataset was used for this analysis. The global dataset has a 2.5° x 2.5° resolution at 10 pressure levels (1000-200 hPa) at 12 h intervals, extends from 1 January 1948 through 31 December 2004. Our region of study is 20° W - 10° E and 30° - 60° N , which comprises the southern part of Europe, eastern Atlantic and part of the Mediterranean Sea. For this analysis four meteorological variables were used: temperature, pressure, moisture and wind. The events found in this study include the “Catastrophic flood in Catalonia the 6th of October, 2000”, for example.