



## **An exploratory study of climatic extreme events in the Iberian Peninsula: statistical and dynamical characterization, and forcing factors (project EXPICA CGL2007-66546-C03/CLI)**

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Climatic extreme events, with intense impacts on the socio-ecosystem, may be changing their time patterns and intensity as a consequence of the anthropogenic climatic change. The “Climatic extremes events in the Iberian Peninsula; characterization statistical and dynamical, and forcing factors” project we are introducing will explore changes in the climatic extreme events over the Iberian Peninsula, and try to explain these changes in the context of the natural climate variability, and look for relationships with various forcing factors. Under this umbrella, in this presentation, as a preliminary study, we analyze daily temperature and precipitation data for Madrid, extracted from the homogenized datasets SDATS (Spanish Daily Temperature Series) and SDAPS (Spanish Daily Precipitation Series), developed by Brunet et al. (2006, 2007) and the Climate Change Research Group (URV, Spain). Extreme indices have been obtained from temperature and precipitation data and the distribution functions representative of these variables have been analyzed. Changes in the parameters of these functions have been studied and related with changes in possible causal factors obtained from weather type classification.

References:

Brunet, M., Saladié, O., Jones, P.D., Sigró, J., Moberg, A., Aguilar, E., Walther, A., Lister, D., López, D. and Almarza C. (2006): “The development of a new daily adjusted temperature dataset for Spain (1850-2003)”, *International Journal of Climatology* 26: 1777-1802.

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