Global and basin scale climate modes as predictors of hydroclimatic extremes in the Iberian Peninsula

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We use a linear statistical relationship to detect potential predictor of hydroclimatic extremes on the Iberian peninsula. The selected predictors are used to build an stochastic model and set to the hindcast of hydroclimatic extremes on the Iberian peninsula.

Extremes are identified from two datasets of monthly totals of Precipitation and monthly mean Temperature from the University of Delaware (UDel-AirT-Precip data provided by NOAA/OAR/ESRL PSD,Boulder, Colorado, USA, from their web site at http://www.esrl.noaa.gov/psd.

The statistical treatment (identification of variables and construction of the stochastic model) follow the methodology presented in OrtizBevia et al.(2012), recently updated in Tasambay-Salazar et al. (2015).

References

Ortiz Beviá, M. J.; Alvarez Garc[U+0092]a, F. J.; Ruiz de Elvira Serra, A.. Liguori , G.; Carretero, J. H. The Western Mediterranean Summer Variability and its Feedbacks. Climate Dynamics. 2012, 39, p. 167-180. doi: 10.1007/s00382-012-14092.

Tasambay Salazar, M.; Ortiz Beviá, M. J.; Alvarez García, F. J.; Ruiz de Elvira Serra, A. The Niño3.4 region predictability beyond the persistence barrier. 2015. Tellus A. 67, p. 1-17. doi: 10.3402/tellusa.v67.27457,