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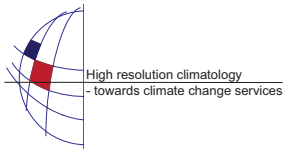

The role of teleconnection patterns on extreme precipitation indices over Europe

A. Casanueva (1), C. Rodriguez-Puebla (2), and N. Gonzalez-Reviriego (3)

(1) University of Salamanca, Atmospheric Physics, Salamanca, Spain (anacv@usal.es), (2) University of Salamanca, Atmospheric Physics, Salamanca, Spain (concha@usal.es), (3) University of Salamanca, Atmospheric Physics, Salamanca, Spain (nube@usal.es)

The purpose of this study is to present results about the variability of some extreme precipitation indices over Europe and to find causes for the occurrence of extreme precipitation by taking into account the influence of teleconnection patterns. We use the daily gridded dataset derived through interpolation of station data (E-OBS) version 3.0. The variability of the indices would be analyzed by means of Empirical Orthogonal Function to reduce the dimensionality and to regionalize the extreme indices. We also use regression analysis to find association between the extreme and teleconnection indices. Some discussion about the trends of the extreme indices over different European regions and results derived of the comparisons between extreme and mean precipitation will be shown. The motivations to perform this study are the greater vulnerability of ecosystems to climate extremes and the interest to derive statistical models to characterize how warmer climate would affect the occurrence of climate extremes.