Introduction
The occurrence of heat waves and cold spells has a special attention in the last years due to their impact in human health, ecosystems and other aspects such as economy (Bielí et al., 2015). In the context of climate change, there are evidences that extreme temperature episodes, not only the mean temperature, are changing in response to the anthropogenic radiative forcing. This work focuses in the analysis of the extreme temperature events in the Iberian Peninsula in a recent 20-year period.

Material & methods

Annual distribution

NAO, AO, WeMO climatic indices versus H/C extremes

No significant correlations were found with the number of H/C events.

Results

Geographical distribution

4-days trajectory densities for H/C extremes at 100 and 1500 m.a.s.l.

There is a significant (p<0.01) negative correlation between the number of cold days and NAO and AO annual indices. Slow warm air-mass advection from Northern Africa affects the occurrence of cold events in the Iberian Peninsula.

Conclusions:

No significant correlations were found with both NAO and AO indices. This is consistent with the warmer temperatures in North Africa transporting hot air-masses to the western Mediterranean basin and Iberia.

References
