



Precipitation Episodes and their association to weather types over Mainland Portugal

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Characterizing daily precipitation with respect to wet episodes may be an important tool in accessing the features of those episodes. Typically, daily precipitation studies focus on variations of total precipitation caused by a change in the frequency or intensity of daily precipitation. However, few studies focus on the precipitation episodes that may occur over a period of time more than one day (i.e. episode). This study motivation is an attempted to classify precipitation events based on the daily circulation patterns and hence add value to precipitation simulations with NWP's models. In the past, other authors had study this relationship mainly focused on the wintertime precipitation (Trigo and DaCamara, 2000; Santos et al, 2005; Zhang et al; 2012). In this study were used observations of daily precipitation covering the time period from January 2001 to December 2010. To each day of this period was associated a second one with daily circulation patterns. For each weather type we identify the number and characteristics of episodes in terms of duration and intensity. The majority of the events are related with the C (Cyclonic flow over Britain) E (Easterly flow) and NW weather regimes, mostly distributed during the last four months of the year.

References

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