



Recent trends in the temporal and spatial structure of precipitation in Mainland Portugal

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The characterization of the behavior (and changes) of the climate system is often biased due to the large temporal and spatial variability of many of the relevant processes in climate studies, the lack of data of suitable resolutions and the limited length of the records. Nevertheless, even the analyses of point precipitation data recorded during a few decades can contribute with valuable information to the understanding of changes/variability of the governing processes.

The purpose of this work is to contribute to a better understanding of the structure of precipitation in Mainland Portugal by investigating recent trends in the temporal and spatial structure of this process. The study uses precipitation data from over one hundred locations scattered over the territory. The time span of the records is 60 years, from 1941 to 2000. The data are analyzed using statistical methods. The analyses of both annual and monthly data lead to a characterization of changes in the distribution of precipitation within the year, which further strengthens the well-known strong seasonal character of precipitation in Mainland Portugal. This may have important implications for some of the studied regions.