



Early meteorological data in southern Spain, 1790-1830

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The increased interest in climate change and variability has created a demand for more empirical data about past climate. In this work, new data sources with early meteorological data (temperature, pressure, wind direction and force, rainy days, cloudiness) of Andalusia (southern Spain) covering the short time period from 1790 to 1830 are presented and analyzed. Among the documentary data sources, early newspapers and medical studies ('medical topographies') deserve special attention. These data sources are interesting due to its potential as climatic data sources in a period prior to the existence of an official meteorological service. In addition, the period between 1790 and 1830 is known as Dalton Minimum, a period characterized by a minimum in the solar irradiance and intense volcanic activity, with the Tambora eruption in April 1815 as main event. From a climatic point of view, therefore, the analysis of climatic data during this period is particularly interesting, due to the role of these external forcing factors. Some extreme events are studied, and future research challenges are outlined.