Statistical comparison of observed temperature and rainfall extremes with climate model outputs

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Climate model outputs have widely been used to support decision making for social and financial policies, with special focus on extreme events. Moreover, it is a general perception that extreme events will be more frequent in the future. To evaluate whether climate models provide a credible basis for predictions of extremes, we study their ability to reproduce annual extreme values of daily temperature and precipitation. The results from climate models are compared to observed data from stations in the Mediterranean. Furthermore, we fit probability distributions which describe the extreme events in both cases and compare the results.