



On extreme daily precipitation totals at Athens, Greece

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The paper studies changes in daily precipitation records at the National Observatory, Athens, during the period 1891-2004. This is the longest available time series of precipitation for Greece. The results show that both the shape and scale parameter of a fitted two parameter gamma distribution when studied the last two decades do show a significant difference of these parameters, when compared to any previous period from the 1890s through the 1970s. Also important changes are observed in daily precipitation totals exceeding various thresholds such as 50, 60, 70 and 80 mm. The changes of extreme precipitation events in this part of SE Europe have significant environmental consequences which are discussed in the text.