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Annual and seasonal changes in the distribution of daily maximum and minimum temperature data and in temperature extreme indices throughout the 1901-2005 period over mainland Spain

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The new Spanish Daily Adjusted Temperature Series (SDATS: Brunet et al. 2006), composed of 22 daily maximum (T_{max}) and minimum (T_{min}) temperature records, has been used to assess annual and seasonal changes in the distribution of daily extreme temperatures and to explore changes in percentile based temperature extremes indices (T_{max} and T_{min} $< 2^{nd}$, 5^{th} and 10^{th} percentiles, and T_{max} and T_{min} $>$ 90^{th}, 95^{th} and 98^{th} percentiles). In this regard, first, an assessment on annual and seasonal changes in daily maximum and minimum temperatures distributions over the different episodes of rising and falling temperatures identified in the Spanish Temperature Series (STS: Brunet et al. 2007) for the 20^{th} century has been carried out, with special emphasis put on the last period of abrupt and strong warming (1973-2005). Second, an analysis on long-term changes in extreme temperatures occurrence has also been performed in order to address changes in the behaviour of the maximum and minimum upper and lower percentile indices. The presentation will show off the major results.

References:

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