



Updating and extending the "dimming" and "brightening" over Spain

Arturo Sanchez-Lorenzo (1), Josep Calbó (2), Enric Pallé (3), Jose Antonio Guijarro (4), Michele Brunetti (5), and Martin Wild (1)

(1) ETH Zürich, Zürich, Switzerland (arturo.sanchez@env.ethz.ch), (2) University of Girona, Dept. of Physics, Girona, Spain (josep.calbo@udg.edu), (3) Institute of Astrophysics of the Canary Islands, Spain, (4) State Meteorological Agency (AEMET), Balearic Islands, Spain, (5) Institute of Atmospheric Sciences and Climate, Italian National Research Council, Italy

In this work we present and update, for the period 2005-2010, of a previously published sunshine duration data set (Sanchez-Lorenzo et al., 2007) for the peninsular Spain. In addition, in order to complete the analysis to cover all Spanish areas, the data set has been extended using series from the Canary Islands (partially studied in Sanroma et al., 2010) and the Balearic Islands. With the aim of studying the direct effect of the anthropogenic aerosols on the sunshine duration records, we also show the sunshine duration mean series for cloudless sky conditions for the whole Spain, extending and updating previous analysis limited to the 1961-2004 period (Sanchez-Lorenzo et al., 2009). Finally, for the first time in Spain, we complete these analyses with the trends in sunshine duration during partly cloudy and overcast conditions.

References:

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