



Comparison of UV erythemal doses from surface and satellite observations in Barcelona

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In this study we present a comparison of UV erythemal doses from ground-based broadband radiometer observations and the Ozone Monitoring Instrument (OMI) satellite estimations. We consider a large data set ranging from 2005 to 2012 from a YES UVB-1 instrument belonging to the Spanish Radiometer Network of the Spanish Meteorological Agency AEMET. These data are completed also with cloud type and cover manual observations from the Fabra observatory in Barcelona city.

Based upon a previous climatology of UV index observations in Barcelona (Bech et al. 2015), the objective of this research is to characterize the average and extreme dose values at different time periods (annual, seasonal, monthly, daily and midday hours) considering the satellite overpass time retrievals and ground observations. Results will contribute to the validation of satellite retrievals with special consideration of the cloud conditions given the importance of biological effects of UV radiation.

Reference

Bech, J., Sola, Y., Ossó, A. and Lorente, J. (2015), Analysis of 14 years of broadband ground-based solar UV index observations in Barcelona. *International Journal of Climatology*, 35: 45–56. <http://dx.doi.org/10.1002/joc.3961>