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Atmospheric Measurement Techniques Discussions

Interactive comment on "Influence of the calibration on experimental UV index at a midlatitude site, Granada (Spain)" *by* M. Antón et al.

Anonymous Referee #1

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The paper describes the application of different calibration methods to broadband UV radiometers (model YES UVB-1) in order to check the accuracy of the UV radiation estimates over Southeastern Spain. The topic is simple but anyway well described; the paper's structure is complete and clear, but some information about the level of accuracy are missing in my opinion. These instruments are widely used in several locations, thus the conclusions of this work can be useful for other users and for further applications of the same kind of instrument (i.e. higher latitude sites). The paper can be published in AMT after minor revisions.

1. In section 2.2 could you specify the value and features of the surface albedo you used in the model input? Could you also add information about the standard profiles you used in the model (i.e. ozone and aerosol profiles)? Could you estimate the error in the UVI derived from the model calculation?

2. In section 3.2 and 3.3 you compare Brewer erythemally integrated irradiance and UVB-1 radiometer output obtained during the campaign in 2007. The UVB-1 calibration factors based on the one-step method depend on the accuracy in the Brewer calibration factors. Could you estimate this accuracy and give some comment about that?

3. Your work refer to the 2007 campaign. Does the calibration coefficients showed any changes during the period 2007-today? How your results would be affected by this change? Could you give a quantitative estimate of this difference?

4. Minor comments

Page 5657 Line 6: change "manufacturer' " with "manufacturer's"

Figure 6 at Page 5670: change "manufacturer' " with "manufacturer's"

P5663 L4: there are two double-dots, please replace with one. ":: => :"

Interactive comment on Atmos. Meas. Tech. Discuss., 3, 5645, 2010.