

## ***Interactive comment on “Solar irradiances measured using SPN1 radiometers: uncertainties and clues for development” by J. Badosa et al.***

### **Anonymous Referee #3**

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#### 1 General comments

The measurement of solar irradiances is very important for climatology. Especially, in the last years those measurements became more and more important for the selection of sites for solar power plants as well as later for the monitoring of solar power plants. Therefore, it is necessary to have not only the total incoming solar radiation but rather its components too.

The described and investigated SPN1 radiometer is one good value possibility to replace the exact but expensive and costly method of measuring the three components of the incoming solar radiation.

The authors analyzed carefully on the base of a comprehensive data set, including data  
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of different climate zones and atmospheric conditions, the features and errors of the SPN1 in comparison to the exact measurements of the solar radiation components. So they described in-depth sources of uncertainty and deduced proposals for their reduction.

This paper is a valuable contribution to interpret the results of the SPN1 in a right manner and for future improvements.

#### 2 Specific comments

P 8154 L 22: Three SPN1 radiometers have been installed . . . Why only the results of one SPN1 of the Payerne measurements were presented (best or worst case)?

P8156/8157: Some more sentences about the slope comparison and re-calibration leading to the results presented in Table 4 (P8178), especially the last two columns, would be desirable.

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