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Atmospheric Measurement Techniques Discussions

Interactive comment on "Estimating of total atmospheric water vapor content from MSG1-SEVIRI observations" *by* A. Labbi and A. Mokhnache

Anonymous Referee #1

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The manuscript entitled "Estimating of total atmospheric water vapor content from MSG1-SEVIRI observations" (manuscript ID amt-2015-232), aims to present an operational algorithm for estimating total atmospheric water vapor content from the MSG1-SEVIRI data over land surfaces. This algorithm is based on a quadratic formula relationship between water vapor and the ratio of the two split-window channel transmittances. This topic is of interest for Atmospheric Measurement Techniques. However, 1).This paper does not bring new knowledge as compared to what is already published in the literature. The methods used in this paper are existing techniques. The authors stated that 'The main contribution of the present work is to consider that the relation-

ship between TAWV and the ratio of the two split-window channel transmittances is a quadratic formula', but it seems like that we can use a quadratic formula or a linear formula or other polynomial depending on the fitting accuracy, and it is not so important in this point. Other authors also used a quadratic formula to build the relationship between TAWV and the ratio of the split-window channel transmittances, e.g. Ren, H., Du, C., Liu, R., Qin, Q., Yan, G., Li, Z., and Meng, J.. 2015. "Atmospheric water vapor retrieval from Landsat 8 thermal infrared images." Journal of Geophysical Research: Atmospheres, 120, doi: 10.1002/2014JD022619. 2).It would improve the quality of the paper if the authors can give in-depth analysis and discussion. 3).The radiosonde observations and the AERONET data acquired in 2006 were used as validation data in this study. It might be better to employ more validation data (especially newer validation data in recent years) to test the effectiveness of the algorithm.

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