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Atmospheric Measurement Techniques Discussions

Interactive comment on "Assessment of adequate quality and collocation of reference measurements with space borne hyperspectral infrared instruments to validate retrievals of temperature and water vapour" *by* X. Calbet

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1) The referee states that the errors calculated from observed (OBS) minus calculated (CALC) radiances by performing a smoothing average over the spectrum is not clear. After re-reading I have observed this is actually the case. The reason for doing this moving average is not properly explained. The paragraph from section 3.2 starting in line 10 has been completely rewritten. The reason to make a moving average is that the individual values of OBS-CALC constitute individual samples of these differences

and, therefore, do not provide us with their covariance. To estimate the covariance, many more values are needed, and this is the reason why values from neighboring channels are used.

2) Text changed following referee's comments.

With respect to the ozone profiles which might not be accurate, a "most likely" has been included to allow for other posibilities (RTMs)

3) Apodized IASI resolution now mentioned in the text

Bias corrections applied to the retrieval are more clearly explained in Calbet 2012. They have been obtained using ECMWF analyses, as is explained in the text in this paper. I believe the reader interested in these bias corrections should consult Calbet 2012.

Reason not to use retrievals in the assessment are now better explained following the referee's proposals.

Interactive comment on Atmos. Meas. Tech. Discuss., 8, 5591, 2015.