

Interactive comment on “Measurement of the water vapour vertical profile and of the Earth’s outgoing far infrared flux” by L. Palchetti et al.

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I believe that more emphasis should be given to the fact that a uncooled detector was used. For instance, explaining the reason of using uncooled detectors which does not seem obvious because a cooled detector will offer better signal to noise ratio. Also, the title could be change in order to include with uncooled detectors.

More emphasis should be given to the fact that the OLR from water vapour is one of the uncertainties in climate research and numerical weather prediction.

In the abstract line 18 it is said that the derived flux differs in the far infrared (0-600) ... Are you interpolating between 0-100 cm⁻¹ because the spectral range you used is only between 100-1400cm⁻¹.

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In p. 17744 when the sections are introduced, section 6 (the conclusions) is not mentioned.

In p. 17745 some characteristics of FIRST are mentioned, I believed that if this measurements are not going to be used there is not point in mentioned. The results of the paper will be more efficient if the analysis of FIRST data gives the same results (considering that the FIRST spectral range covers the whole spectral range of REFIR-PAD)

In p. 17747 when it is mentioned that the Lorentz function is replaced with the Van Vleck Weisskopf function a explanation (maybe a plot showing the interference of the imaginary part) of why this is important for the FIR and not for the IR will make the things clearer.

In p. 17749 line 7 it is written errore rather than error

At the end of p. 17753 and the beginning of page 17754 it is written that the characterization of the outgoing radiation flux could be attained, using uncooled detectors ... I think that the characterization can be done also with cooled detectors.

Fig. 3 label should say temperature rather than only T.

Interactive comment on Atmos. Chem. Phys. Discuss., 7, 17741, 2007.

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