

Interactive comment on “Assessing water vapor tomography in Hong Kong with improved vertical and horizontal constraints” by Pengfei Xia et al.

Anonymous Referee #2

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General comments

The paper investigates the improvement in the estimation of atmospheric water vapor by 1) constructing a new T_m model, 2) determining the scale height of water vapor, which used to calculate the vertical constraint and 3) Deriving the smoothing factor in the horizontal constraint. This study is interesting and worth to be published. It is well written and well-organized.

Specific comments

In page 20, section 4.2, lines 386-387. The authors set up a set of criteria to evaluate the tomography profile $PPC > 0.9$ and $RMS < 2.0 \text{ g/m}^3$. Can you please explain why you choose these criteria? Are there any references for choosing these specific numbers?

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Interactive comment on Ann. Geophys. Discuss., <https://doi.org/10.5194/angeo-2018-37>, 2018.

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