

Interactive comment on “Removing spurious inertial instability signals from gravity wave temperature perturbations using spectral filtering methods” by Cornelia Strube et al.

Anonymous Referee #2

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General comment:

The study is well organized and well written about a relatively new topic which is of high interest. Thus, I recommend a publication in AMT after a minor revision. I have two points which need a further discussion by the authors.

1) Why do the authors often use TIMED/SABER measurements in their studies which have a poor horizontal resolution? For example, the horizontal sampling of Aura/MLS is better. It would be important to know why the approach of Jiang and Wu disappeared after 2005 or so. They used high resolution brightness temperature measurements of MLS. It makes more sense to discover gravity waves in satellite data sets having a high

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horizontal resolution.

2) line 349 "... which indicates real gravity wave activity" This seems to be a speculation since there are steep meridional and zonal gradients at the polar vortex edge which might be misinterpreted as enhanced gravity wave activity around the polar vortex. Please discuss this fundamental problem in more detail.

Interactive comment on Atmos. Meas. Tech. Discuss., doi:10.5194/amt-2020-29, 2020.