

Interactive
Comment

Interactive comment on “Uncertainty of the stratospheric/tropospheric temperature trends in 1979–2008: Multiple Satellite MSU, radiosonde, and reanalysis datasets” by J. Xu and A. M. Powell Jr.

Anonymous Referee #1

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The uncertainty of climate data from different sources has significant impact on global warming signal detection and assessment due to the small amplitude of the signal and large uncertainty of these data. All these data, including reanalysis and satellite data have been treated as estimations of observations. Understanding the uncertainty of these data is important in science.

The authors of this work demonstrated the consistency and divergence of linear trends of stratospheric and tropospheric temperature during 1979–2008 and their latitude dependences in various datasets, including satellite MSU, radiosonde, and reanalyses.

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They found that the overall trends of the stratospheric cooling and tropospheric warming are generally consistent, but their amplitudes depend on the datasets and latitudes. These conclusions are significant for the global warming signal detection and assessment.

Interactive comment on Atmos. Chem. Phys. Discuss., 11, 16639, 2011.

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