Interactive comment on “The effect of ENSO activity on lower stratospheric water vapor” by F. Xie et al.

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The manuscript by Xie et al. uses the ECMWF reanalysis products "ERA-40" and "ERA-interim" to derive conclusions about the relationship between stratospheric water vapour anomalies and ENSO. However, the data assimilation for these reanalysis datasets uses only tropospheric column measurements for water vapour. Therefore the stratospheric water vapour is primarily a result from the model, and as such heavily depends on the employed parametrizations for convection, transport algorithms etc. The manuscript is not suitable as a pure model study, because none of such aspects is discussed. In conclusion, the scientific significance is not high enough to warrant publication in ACP. I have attached the major criticism by the reviewers.

Sincerely, Dr. A. Baumgaertner
Please also note the supplement to this comment:

Interactive comment on Atmos. Chem. Phys. Discuss., 11, 4141, 2011.