

Interactive comment on “Modelling the global tropospheric ozone budget: exploring the variability in current models” by O. Wild

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My compliments for this well written, systematic evaluation of what the main uncertainties in the current ozone budget are. I want to pick on one specific issue that too my opinion is very dependent on how the specific parameterisation is done: the role of stratospheric ozone influx and resolution. Too my own experience the STE (strongly) increases when decreasing the horizontal resolution. This is because vertical motions around the tropopause are now better resolved.

The authors state that at T42L37 the STE increases by 8% compared to T41L21 which I think means that the role of vertical resolution (or a better transport scheme) is perhaps even more important than suggested by this number.

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There is a quite rich literature on this: I suggest to search for results of the STACCATO project; and the group at KNMI/ Bregman also did substantial work on this. There must be many others.

Again- nice paper.

Interactive comment on Atmos. Chem. Phys. Discuss., 7, 1995, 2007.

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