

Interactive comment on “Long-memory processes in global ozone and temperature variations” by C. Varotsos and D. Kirk-Davidoff

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Scaling analysis certainly is becoming an important approach to the analysis of atmospheric data. The authors may wish to consider the following references: Koscielny-Bunde et al., Indication of a universal persistence law governing atmospheric variability, Phys. Rev. Lett., 81, 729 (1998) Tuck and Hovde, Fractal behaviour of ozone, wind and temperature in the lower stratosphere, Geophys. Res. Lett., 26, 1271 (1999) Syroka and Touni, Scaling of central England temperature fluctuations?, Atmos. Sci. Lett., 2, 143 (2001) Touni et al., Robust non-Gaussian statistics and long range correlation of total ozone, Atmos. Sci. Lett., 2, 94 (2001) Lovejoy et al., Direct evidence of multifractal cascades from planetary scales down to 1 km, Phys. Rev. Lett., 86, 5200 (2001) Tuck et al., Scale invariance in jet streams: ER-2 data around the lower stratospheric polar

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night vortex, Q. J. R. Meteorol. Soc., 130, 2423 (2004)

All of them said original things relevant to the scaling of temperature, ozone or both; the last in particular focussed on jet streams. Schertzer and Lovejoy, The dimension and intermittency of atmospheric dynamics, in Turbulent Shear Flows, Vol. 4, Springer, New York, pp. 7-33 (1985) originated the application of scaling to the atmosphere, although its power law roots can be traced back to Richardson, Atmospheric diffusion shown on a distance-neighbour graph, Proc. Roy. Soc. A, 110, 709 (1926).

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