



Tropospheric ozone over Europe in 2007-2008 measured with IASI

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In this paper we present tropospheric ozone column amounts (0-6 km) obtained from infrared radiances measured by the IASI instrument aboard the MetOp-A satellite using an altitude-dependent regularization method. As a first demonstration we have focused on the heat wave over Southern Europe in summer 2007 and observed very high values, in agreement with predictions from a chemical transport model of tropospheric photochemistry (CHIMERE), see also Ref. [1]. As a validation of our ozone product, the data are compared with ozone profiles from balloon sonde measurements world-wide, for the period from July 2007 to August 2008, and show very good agreement, including the seasonal variations and comparison with reference climatologies. Extended results covering other periods of the years 2007-2008 over Europe will be presented as well as some results concerning other parts of the world subject to strong pollution events.

[1] M. Eremenko, G. Dufour, G. Foret, C. Keim, J. Orphal, M. Beekmann, G. Bergametti, and J.-M. Flaud: "Tropospheric ozone distributions over Europe during the heat wave in July 2007 observed from infrared Nadir spectra measured by IASI", *Geophys. Res. Lett.* 35, L18805, doi:10.1029/2008GL034803, 2008.