



Validation of OMI UV products: first results of comparison with ground-based data at Rome

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Ozone Monitoring Instrument (OMI) onboard the NASA/EOS Aura spacecraft (launched on 15 July 2004) is a UV/Vis spectrometer capable of daily global mapping. The OMI products include total column ozone and other trace gases, aerosols properties and solar UV radiation reaching the Earth's surface; OMI retrieved data require continuous validations with ground-based measurements in order to guarantee high quality data. The Solar Radiometry Observatory located at Rome (12.5 E, 41.9 N, 75 m altitude) provides solar UV irradiance measurements retrieved by means of a Brewer spectrophotometer since 1992 and by a broad-band radiometer (model UVB-1, Yankee Environmental System, MA, USA) since 2000. To ensure correct performance both instruments were recently calibrated to guarantee the accuracy of ground-based observations. Hence, data collected at Rome station can contribute to validate satellite-based OMI data. In this study, the results of the comparison between OMI and ground-based UV data at Rome site are presented: YES-UVB1 dose rates (computed by means of both OMI-TOMS and Brewer total ozone measurements) have been compared with OMI UVB overpass data. Brewer retrieved total ozone measurements were also compared with OMI-TOMS and OMI-DOAS total ozone data.