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Ozone Monitoring Instrument (OMI): First results

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The Ozone Monitoring Instrument (OMI) is an UV/VIS nadir solar backscatter imaging spectrograph, which provides nearly global coverage in one day with a spatial resolution of 13 x 24 km2. OMI measures solar irradiance and Earth radiances in the wavelength range of 270 to 500 nm with a spectral resolution of about 0.5 nm.

OMI is a new instrument, with a heritage from the European satellite instruments GOME, GOMOS and SCIAMACHY. OMI's unique capabilities for measuring important trace gases with a small footprint and daily global coverage will make a major contribution to our understanding of the expected recovery of the ozone layer, the sources and transport of aerosols and trace gases that effect global air quality and the roles of tropospheric ozone and aerosols in climate change.

The talk will give an overview of the performance of the instrument, first trace gas retrievals and their early validation results. Comparisons with results obtained from EP-TOMS and SCIAMACHY will be shown.