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Monitoring of atmospheric composition using the thermal infrared IASI/METOP sounder

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The IASI instrument was launched onboard the METOP platform in October 2006. It is a nadir looking Fourier transform spectrometer that probes the Earth's atmosphere in the thermal infrared spectral range, with a spectral resolution of 0.5 cm-1 (apodized). IASI is monitoring the atmospheric composition at any location two times per day, and is measuring some of the chemical components playing a key role in the climate system and pollution issues.

This talk will summarize the early results we have obtained from the analysis of the Eumetsat L1 products (nadir radiance spectra) since May 2007. We operationally retrieve CO, CH_4, O_3, as well as partial columns for O_3. We also generate research products such as HNO_3, H_2O isotopes, and other atmospheric species. A special emphasis will be put on the study of fire and volcanic events.