



## **MIPclouds: Cloud Information Retrieval from MIPAS-Envisat measurements**

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The Michelson Interferometer for Passive Atmospheric Sounding (MIPAS) on the EN-VISAT satellite measures limb IR spectra in the 4 to 15 micron range. The instrument has measured nearly continuously from September 2002 to March 2004. The ESA operational level 1 and 2 products for this period include so far no direct information on clouds and aerosols. This is not surprising, because the analysis and retrieval of cloud parameter from limb IR spectra is still a challenging task for radiative transport applications. As part of an ESA funded study the MIPclouds consortium will explore how to retrieve micro-physical and macro-physical parameters from the spectra, such as cloud top heights, cloud types, estimates of particle sizes and ice water content of the cloud. Final goal of the study is to develop a fast (near-real-time) and validated prototype processor for the analysis of all MIPAS measurements. The outline of the project and first results on the retrievability cloud parameter from the IR limb spectra will be presented. The study will be very important to make a step forward in the analysis of limb measurements under cloudy conditions, which is also of great interest for potential future ESA atmospheric chemistry and dynamic missions.