



## Retrieval of aerosol optical properties over land using PMAp

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The retrieval of aerosol optical properties is an important task for industry and climate forecasting. An ideal instrument should include observations with moderate spectral and high spatial resolutions for a wide range of wavelengths (from the UV to the TIR), measurements of the polarization state at different wavelengths and measurements of the same scene for different observation geometries. As such an ideal instrument is currently unavailable the usage of different instruments on one satellite platform is an alternative choice.

Since February 2014, the Polar Multi sensor Aerosol product (PMAp) is delivered as operational GOME product to our customers. The algorithms retrieve aerosol optical properties over ocean (AOD, volcanic ash, aerosol type) using a multi-sensor approach (GOME, AVHRR, IASI). The next releases of PMAp will provide an extended set of aerosol and cloud properties which include AOD over land and an improved volcanic ash retrieval combining AVHRR and IASI.

This presentation gives an overview on the existing product and the prototypes in development. The major focus is the discussion of the AOD retrieval over land implemented in the upcoming PMAp2 release. In addition, the results of our current validation studies (e.g. comparisons to AERONET, other satellite platforms and model data) are shown.