Aeolus aerosol and cloud product

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The European Satellite has the first space-borne high-spectral resolution UV lidar onboard called ALADIN. Two detection channels, a broadband (Rayleigh channel) and a narrowband (Mie channel), are implemented. Carefully calibrated, this combination offers the possibility to derive independent estimates of the backscatter and extinction coefficients of clouds and aerosols, leading to a direct estimation of the lidar ratio, useful for aerosol classification.

The presentation will show how the official processor of the mission works for the retrieval of optical properties of cloud and aerosol particles, with a focus on the currently available products (called L2A). The potential of the L2A processor will be illustrated by results obtained on data acquired since Aeolus launch and by comparisons to ground based lidars in the frame of Cal/Val activities.

The L2A product will become publicly available during Spring 2021. Thus, this is also an opportunity to introduce a few practical aspects about its usage.