

Nadir retrievals of ozone, aerosol's optical depth and surface reflectivity with SPICAM/UV.

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We have developed a new retrieval algorithm for nadir measurements based on the radiative transfer model LIDORT. This code performs simulations of spectra taking into account gas absorption, surface reflection and scattering by aerosols and gases. Our retrieval method is based on the optimal estimation method.

Using this algorithm on the nadir SPICAM/UV data, we first intend to retrieve and obtain maps of ozone total columns, aerosol's optical depth (OD) and the surface reflectivity (Hapke BRDF). Then, working on the EPF data from SPICAM/UV and using some of these retrieved quantities as fixed parameters, we plan to analyse some aerosol's properties such as its altitude distribution, its single scattering albedo and maybe also its phase function.

In this presentation, we will show the maps of ozone, aerosol's OD, and surface reflectivity we obtained using our new retrieval algorithm.