

## Overview of MAIAC aerosol-surface retrieval capabilities from Leo, Geo and L1 orbits

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The Multi-Angle Implementation of Atmospheric Correction (MAIAC) algorithm, based on dynamic time series analysis, has been adapted for a wide range of sensors on polar, geostationary and L1 orbits. Originally developed for MODIS (Lyapustin et al., 2018), MAIAC provides aerosol optical depth (AOD) and column water vapor (Lyapustin et al., 2014) at high 1km resolution along with spectral surface reflectance and BRDF model. Using hourly EPIC observations in EPIC’s UV, vis., NIR and atmospheric oxygen A,B-bands, MAIAC provides assessment of spectral aerosol absorption and height in addition to AOD (Lyapustin et al., 2021; Go et al., 2022). We will give an overview of MAIAC aerosol retrieval capabilities from MODIS/VIIIRS, GOES-16, DSCOVR EPIC and harmonized Landsat 8/Sentinel 2 covering range of spatial resolutions from 16km to ~90m.

### References

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