NOMAD on ExoMars TGO: Data processing and public release via the ESA Planetary Science Archive

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NOMAD is a suite of three spectrometers on-board the ExoMars Trace Gas Orbiter. The spectrometers operate in solar occultation, nadir and limb observing modes, measuring in the infrared (2.2-4.3um in occultation; 2.2-3.8um in nadir) and UV-visible (0.2-0.65um) spectral regions. The nominal science phase began on 21st April 2018; since then NOMAD has collected over one Martian year of data.

Due to the very high spectral and spatial resolution of NOMAD, an enormous amount of data has already been generated - including tens of millions of solar occultation and nadir spectra - which currently total around four terabytes and are spread across almost half a million files. To serve the scientific community, all calibrated data will eventually be made publicly available in PDS4 format via the ESA Planetary Science Archive at

At the time of writing, the NOMAD data collection has successfully passed peer review, and data from two of the three channels will be available very shortly. This first release will consist of: 1) infrared solar occultation data; 2) UV-visible solar occultation data; and 3) UV-visible nadir data. The infrared nadir and infrared and UV-visible limb data will be released later, once the calibration is finalised. In this presentation I will update the scientific community on the current status of the NOMAD PSA archive, including a description of the data and how to start using it.