



First resolved spectra of 1 Ceres

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1 Ceres has been observed during the oppositions of January 2004 and May 2005 with the NACO adaptive optics system on the VLT. Both imaging and spectroscopy were performed in the 0.9-4.1 μm range. Extensive longitudinal coverage was acquired in imaging mode with spatial resolution up to 50 km, confirming the presence of faint dark and bright markings at the surface and color variations in the NIR (Erard et al. LPSC 2005).

The first resolved spectra of Ceres have also been acquired during these runs. The data consist in spectral scans of the day side, typically with 15 lines of 20 samples and a spectral resolution $R \sim 500$. A specific calibration scheme has been applied to preprocess the data and to evidence small compositional variations at the surface of Ceres. Spectral features have been studied with a new wavelet-based tool that allow extraction in noisy situations. Spectroscopy results will be presented at the conference.

Study based on observations collected at the European Southern Observatory, Chile, ESO N° 072.C-00092 and 075.C-0329.