Contribution ID: **547** Type: **Invited talk in a parallel session**

Near Infrared Spectro-Photometer instrument performances and capabilities

Tuesday, 9 July 2024 15:30 (15 minutes)

ESA's mission Euclid launched in July 2023 was fully commissioned and since early 2024 is performing its nominal survey. Euclid performs an extra galactic survey (0<z<2) using visible and near-infrared light. To detect infrared radiation is equipped with the Near-Infrared Spectro-Photometer (NISP) instrument sensible in the 0.9-2 μm range. The NISP instrument will be extensively described, including its complete optical system that allows to perform spectrometry (using a Blue and Red Grisms) and photometry (using YE 0.95-1.21μm, JE 1.17-1.57μm, and HE 1.52-2.02μm filters); its focal plane array (0.56 deg2 FoV) composed of 16 Teledyne's HAWAII-2RG with a total of 64 Mpx, with a 0.3 arcsec/px resolution; and the data reduction approach implementing with the on-board processing to derive the signal and mitigate the downlinked data load to ground. NISP capabilities will be described using examples of in-flight calibration results that enabled science results already achieved with the early release data what will be partially touch in this presentation

Primary author: MEDINACELI, Eduardo (INAF-OAS)

Presenter: MEDINACELI, Eduardo (INAF-OAS)

Session Classification: The Euclid mission: current status, results from early observations, and future prospects

Track Classification: Dark Energy and Large Scale Structure (DE): The Euclid mission: current status, results from early observations, and future prospects