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## **Euclid Near-Infrared Instrument (NISP): imaging pipeline development and preliminary results on instrument performances**

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Euclid is an ESA survey mission designed to understand the origin of the Universe's accelerating expansion using weak gravitational lensing and redshift clustering as main probes. Very high image quality is required for galaxy shape measurements, while accurate photometry at visible and near-infrared wavelengths and near-infrared spectroscopy are needed to measure photometric and spectroscopic galaxy redshifts.

Within the Euclid Science Ground Segment, the near-infrared imaging (NIR) processing function has the task to reduce all the images produced by the near-infrared instrument (NISP) in photometric mode. Starting from Level 1 raw frames, the NIR pipeline produces individual images and stacked mosaics in Y, J, and H bands accounting for instrumental effects, subtracting the sky background, performing both astrometric and photometric calibrations, and providing all the information needed for catalogue production such as PSF, variance, weights, and quality flags.

Here, after an overview of the pipeline design, I will present the current status of the NIR processing function development. Moreover, I will provide a brief overview of the instrument performances, obtained from the analysis of the commissioning data and of the first scientific imaging observations, collected during Euclid first ten months of operation.

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