



Contribution ID: 640

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## The VIS Instrument onboard Euclid

*Tuesday, 9 July 2024 15:45 (15 minutes)*

The contribution is focused on the description of the VIS instrument onboard the ESA Euclid mission. VIS is a large optical-band imager with a field of view of  $0.54 \text{ deg}^2$  and a spatial resolution of  $0.18''$ . It will be used to survey approximately  $14,000 \text{ deg}^2$  of extragalactic sky to measure the distortion of galaxies in the redshift range  $z=0.1-1.5$  resulting from weak gravitational lensing, one of the two principal cosmology probes of Euclid. The entire VIS focal plane will be transmitted to provide the largest images of the Universe from space to date, reaching a magnitude  $> 24.5$  with  $S/N > 10$  in a single broad  $I_{E\sim(r+i+z)}$  band over a six year survey. With its combination of spatial resolution, calibration knowledge, depth, and area covering most of the extra-Galactic sky, VIS will also provide a legacy data set for many other fields. A description of how VIS works with the other Euclid components to extract the cosmological information will be provided as well.

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