

Euclid: a terapixel window on cosmic history

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The ESA Euclid space telescope is carrying out routine survey operations and rapidly building an unparalleled imaging and spectroscopic dataset. The near-infrared spectrometer and photometer (NISF) is imaging the sky with direct imaging and slitless spectroscopy, complemented in the optical with the high resolution VIS camera, as well as ground-based photometry. Over the six-year mission, Euclid will complete the Wide Survey of approximately 15 000 sq deg of extragalactic sky, and the Deep Survey (50 sq deg). These observations will unveil the history of cosmic structure over half the age of the Universe through galaxy shape measurements from weak gravitational lensing, and the spectroscopic clustering pattern of galaxies spanning the cosmic web. Jointly these probes will tightly constrain the nature of dark energy and gravity. Moreover, the rich spectrophotometric dataset will enable investigations into the evolutionary histories of galaxies and their active galactic nuclei since high redshift.

sessioni congresso

Galassie e Cosmologia

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