News directory

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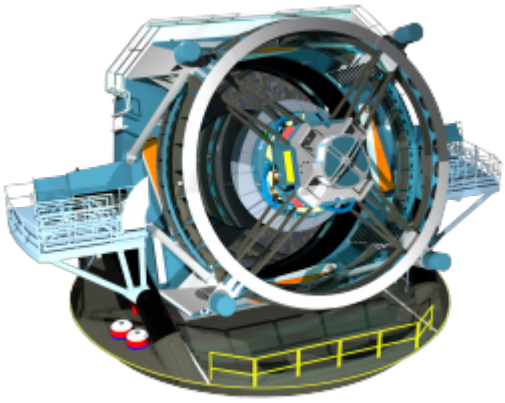
The Institute of Space Sciences (IEEC-CSIC) joins the Large Synoptic Survey Telescope (LSST)

The Institute of Space Sciences (IEEC-CSIC) has joined the Large Synoptic Survey Telescope (LSST) project, together with IFAE, CIEMAT and IFT/UAM, in what the Barcelona-Madrid Group. It has also joined LSST's Dark Energy Science Collaboration (DESC) to contribute in dark matter and dark energy research.



The Cosmology Group at the Institute of Space Sciences (IEEC-CSIC) is focused on studying the large scale structure of the universe with observational techniques to try to understand the origin and evolution of the accelerated expansion of the universe. In addition to the LSST our group is already a builder of four international collaborations based at different astronomical observatories: Dark Energy Survey (DES) in Chile, the Physics of the Accelerating Universe (PAU) in La Palma, the Dark Energy Spectroscopic Instrument (DESI) in Arizona, and Euclid, a future satellite by the European Space Agency (ESA). By joining LSST our group consolidates its research agenda to participate in the top international projects to map and understand the evolution of our universe.

LSST is now under construction and will be located on the El Peñón peak of Cerro Pachón, a 2,682-meter-high mountain in northern Chile. The on-site construction began on April 2015 and full operations for a ten-year survey are expected to start in 2023. Equipped with a 3-billion pixel digital camera (the world's largest digital camera), LSST will observe objects as they change or move, providing insight into short-lived transient events such as astronomical explosions and the orbital paths of potentially hazardous asteroids. LSST will take more than 800 panoramic images of the sky each night, allowing for detailed maps of the Milky Way and of our own solar system and charting billions of remote galaxies. Its observations

will probe the imprints of dark matter and dark energy on the evolution of the universe.

More information: https://www.lsst.org/