

The Dark Energy Survey: First Results

Tuesday, 10 September 2013 14:00 (20 minutes)

During fall 2012 the Dark Energy Survey (DES) collaboration installed and commissioned DECam, a 570 mega-pixel optical and near-infrared camera with a large 3 sq. deg. field of view, set at the prime focus of the 4-meter Blanco telescope in CTIO, Chile. In the course of the next five years DECam will map an entire octant of the southern sky to unprecedented depth, measuring the position on the sky, redshift and shape of over 200 million galaxies, together with thousands of galaxy clusters and supernovae. With this data set, DES will study the properties of dark energy using four main probes: galaxy clustering on large scales, weak gravitational lensing, galaxy-cluster abundance, and supernova distances.

A “Science Verification” (SV) period of observations, lasting until late February 2013, followed the DECam commissioning phase, and provided science-quality images for over 150 sq. deg. at the nominal depth of the survey. The talk will present the first results from the SV observations, and will summarize the plans and goals for the upcoming years.

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