

Status and commissioning of the Large Size Telescopes of the Cherenkov Telescope Array

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The Cherenkov Telescope Array (CTA) will be the next generation ground-based observatory for gamma-ray astronomy and will consist of Imaging Atmospheric Cherenkov Telescopes (IACTs) distributed over two sites, one in the northern and one in the southern hemisphere. CTA will detect gamma rays from 20 GeV to 300 TeV by means of three different telescope sizes. The sub-arrays of four Large Size Telescopes (LSTs) that will be installed on both sites aim at detecting gamma rays at the lower energies, especially between 20 GeV and 100 GeV. The first LST (LST-1) was completed in 2018 at the CTA-North site at La Palma (Spain) and three more will be built in the next three years. In this presentation we will report on the status of the LSTs as well as the commissioning of the LST-1. In particular we will report on the status of: the drive system able to move the structure that supports a 23 m diameter dish anywhere in the sky in 20 seconds for Gamma Ray Burst follow-up, the Active Mirror Control in charge of shaping the reflective surface made of 198 individual mirrors, and the camera made of 1855 PMTs with high quantum efficiency and fast embedded readout electronics allowing a data acquisition rate up to at least 15 kHz.

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