



Contribution ID: 197

Type: **Oral contribution**

Status of the Cherenkov Telescope Array Large Size Telescopes

Monday, 3 August 2015 14:55 (20 minutes)

The Cherenkov Telescope Array (CTA) observatory, will be deployed over two sites in the northern and southern hemispheres. Both sites will be equipped with four Large Size Telescopes (LSTs), which are crucial to achieve the science goals of CTA in the 20-200 GeV energy range. Each LST is equipped with a primary tessellated mirror dish of 23 m diameter, supported by a structure made mainly of carbon fibre reinforced plastic tubes and aluminum joints. This solution guarantees light weight (around 100 tons), essential for fast slewing to any position of the sky

in <20 seconds. The camera is composed by 1855 PMTs and is integrated with the control, readout and trigger electronics. Detailed design is basically complete and production of the first LST, which will serve as a prototype for the remaining seven, is well underway. The first LST will be installed at the Roque de los Muchachos Observatory in the Canary island La Palma (Spain) in 2016. In this talk we will outline the technical solutions adopted to fulfill the design requirements, present results of element prototyping and describe the installation and operation plans.

Collaboration

CTA

Registration number following "ICRC2015-I"

867

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