28th Texas Symposium on Relativistic Astrophysics



Contribution ID: 112 Type: Talk

The Cherenkov Telescope Array

Tuesday, 8 December 2015 14:00 (24 minutes)

As an observatory for ground-based gamma-ray astronomy in the energy region from a few tens of GeV to a few hundred TeV, the Cherenkov Telescope Array (CTA) will be the major next generation facility of Imaging Atmospheric Cherenkov Telescopes. The broad energy coverage will be accompanied by an order of magnitude improvement in flux sensitivity in the TeV region along with factor 2-5 improvements in angular and energy resolution compared to the current generation of instruments. These improvements in performance will come from the use of multiple designs of wide field-of-view telescope, each optimised for a particular energy region, arranged in extensive arrays. Full sky coverage will come from having arrays at two sites, one in the southern hemisphere and another in the northern. CTA will operate as an open access observatory to the astrophysics community and run a Key Science Programme to provide legacy datasets and address topics of both high-energy astrophysics and fundamental physics. This talk will review the status of the CTA project as it enters its pre-construction phase.

Primary author: DANIEL, Michael (University of Liverpool)

Presenter: DANIEL, Michael (University of Liverpool)

Session Classification: 20 - Future challenges and experiments