

Contribution ID: 50

Type: not specified

The Cherenkov Telescope Array (CTA)

Friday 16 October 2015 14:45 (45 minutes)

The Cherenkov Telescope Array (CTA) is a next generation observatory for ground-based gamma-ray astronomy to be built in the near future by an international consortium. The plan is to build 2 arrays one in the southern and the other in the northern hemisphere with hundreds of Imaging Atmospheric Cherenkov Telescopes of assorted size. This will enable to achieve an order of magnitude improvement in the sensitivity and angular resolution and also span a wide energy range of 10 GeV to 10TeV. The CTA will serve as an open observatory to a wide astrophysics community and will provide a deep insight into the non-thermal high-energy universe. It will have a large discovery potential in key areas of astronomy, astrophysics and fundamental physics research which include the study of the origin of cosmic rays and their role in the Universe, the nature and variety of particle acceleration around black holes, and the inquiry into the ultimate nature of matter and physics beyond the Standard Model, searching for dark matter and effects of quantum gravity. In this talk I shall describe the CTA project and its current status.

Presenter: Prof. ACHARYA, B. S. (TIFR, Mumbai)