

Contribution ID: 565

Type: Talk

Progress of the GRANDProto300 Project

Saturday 19 July 2025 14:05 (15 minutes)

GRANDProto300 is a pioneering prototype array of the GRAND experiment. It consists of 300 radio antennas and will cover an area of 200 km^2 in a radio-quiet region of western China. Serving as a test bench for the GRAND experiment, GRANDProto300 aims to achieve autonomous radio-detection and reconstruction of highly inclined air showers. It is designed to detect ultra-high-energy cosmic rays in the energy range of $10^{16.5} - 10^{18}$ eV at a rate comparable to that of the Pierre Auger Observatory. Over the past two years, significant improvements have been made to both the hardware and firmware of GP300. Currently, 50 detection units have been deployed at the site. We present the current status of detector commissioning, including updates on hardware, calibration results such as GPS timing and antenna positioning. Additionally, we discuss the observation of solar radio bursts associated with solar flares, the galactic radio emissions detected, and preliminary cosmic-ray searches.

Collaboration(s)

GRAND

Author: ZHANG, Yi (Purple mountain observatory)
Co-author: MA, Pengxiong (Purple mountain observatory)
Presenter: MA, Pengxiong (Purple mountain observatory)
Session Classification: CRI

Track Classification: Cosmic-Ray Indirect