

Status of the Telescope Array detectors

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Telescope Array (TA) is the largest ultrahigh energy cosmic-ray (UHECR) observatory in the Northern Hemisphere. It explores the origin of UHECRs by measuring their energy spectrum, arrival-direction distribution, and mass composition using a surface detector (SD) array covering approximately 700 km² and fluorescence detector (FD) stations. TA has found evidence for a cluster of cosmic rays with energies greater than 57 EeV. In order to confirm this evidence with more data, it is necessary to increase the data collection rate. We have begun building an expansion of TA that we call TAX4. In this presentation, we explain the motivation, design, technical features, and performance of the TA and TAX4 detectors. We also present recent results of the experiment.

TIPP2020 abstract resubmission?

No, this is an entirely new submission.

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