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## **Observation of extremely high energy cosmic rays with the Telescope Array experiment**

*Thursday, 12 July 2018 13:00 (30 minutes)*

The Telescope Array (TA) is the largest experiment in the northern hemisphere to study origin of extremely high energy cosmic rays, which is one of unsolved puzzles in the nature.

TA is a hybrid detector system consisting of surface detector (SD) array and atmospheric fluorescence detectors (FDs).

507 SDs are arranged on a 1.2km grid over an area of about 700 km<sup>2</sup>.

Three FD stations enclose this SD array, and each FD station views 108° in azimuth and 30° in elevation.

TA has been operated for ten years.

We summarize our recent results on spectrum, anisotropy and composition.

Finally, we also introduce the TA low energy extension (TALE) experiment and the TAx4 experiment as its higher energy extension.

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