

Cosmic ray mass composition measurement with the TALE hybrid detector

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The Telescope Array (TA) located in the State of Utah in the US is the largest ultra-high energy cosmic rays observatory in the northern hemisphere. The Telescope Array Low-energy Extension (TALE) detector was constructed to study the transition of cosmic rays from Galactic to extra-galactic origin. The TALE detector consists of a Fluorescence Detector (FD) station with 10 high elevation telescopes located at the TA Middle Drum FD Station (itself made up of 14 FD telescopes), and a Surface Detector (SD) array made up of 80 scintillation counters, including 40 with 400 m spacing and 40 with 600 m spacing. We have continued stable observation with hybrid mode since 2017. In this contribution, we present the latest result of the cosmic ray mass composition measurement using almost 4 years of TALE hybrid data.

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