

TA Spectrum Summary

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This work summarizes the cosmic ray energy spectrum measurement by the Telescope Array Experiment (TA) in the energy range from 4 PeV to over 100 EeV. The TA is a hybrid detector that uses 3 air fluorescence detectors (FDs) overlooking a ground array of scintillation counters of 1200 m spacing. In May 2016, TA has collected 8 years of data. The TA low energy extension (TALE) extends the energy range of TA to 4 PeV, TALE consists of additional fluorescence telescopes at one of the TA FD stations, in combination with an infill array of 400m spaced counters. The TALE infill array is currently under construction and will become fully operational in 2017. TALE has collected 2 years of data. We will present (1) the energy spectrum measured by TA surface detector, which provides the largest statistics measurement at the highest energies; (2) the TA FD mono and hybrid spectra which cover intermediate energies; and (3) we will show the results of TALE, which include TALE monocular fluorescence and Cherenkov measurements and cover the lowest energies in the experiment.

Presentation type

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