

Cosmic ray energy spectrum measurements by Pierre Auger Observatory and Telescope Array

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The measurement of the energy spectrum of cosmic rays is of crucial importance to reveal their origin, propagation, and acceleration mechanisms. The Pierre Auger Observatory in Argentina and the Telescope Array (TA) in the US continue to observe cosmic rays by a hybrid detector, which is composed of Fluorescence Detectors (FD) and Surface Detector (SD) array, in the southern and northern hemispheres respectively. Especially in recent measurements, they successfully measure the cosmic ray spectrum with energies below 10^{16} eV by observing events in which the signals from air showers are dominated by Cherenkov light by high elevation fluorescence telescopes. This contribution reviews the recent measurements by both collaborations, particularly the Cherenkov-based measurements.

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