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Telescope Array Experiment

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Abstract: Telescope Array (TA) is a cosmic ray detector in the Northern hemisphere that measures extraterrestrial particles of energies ranging from $10^{15.4}$ to 10^{20} eV and higher. The main TA is a hybrid detector that consists of an array of scintillation counters, which effectively cover a 700 km² area on the ground that is overlooked by three fluorescence detector stations. TA Low Energy Extension (TALE) extends the minimum energy threshold of the main TA from 10^{18} to $10^{15.4}$ eV using additional fluorescence telescopes pointed to view higher elevation angles, together with an infill array. In this presentation, we describe the TA experiment and present the latest TA measurements of cosmic ray energy spectrum, mass composition, and anisotropy.

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