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Recent results from the Telescope Array Experiment

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The Telescope Array (TA) measures the properties of ultra high energy cosmic ray (UHECR) induced extensive air showers. TA employs a hybrid detector comprised of a large surface array of scintillator detectors overlooked by three fluorescence telescopes stations. The TA Low Energy extension (TALE) detector has operated as a monocular Cherenkov/fluorescence detector for nearly three years, and has just been complemented by a closely spaced surface array to commence data taking in hybrid mode. The TA_{x4} upgrade is underway and aims to, as the name suggests, quadruple the size of the surface array to improve statistics at the highest energies (post-GZK events).

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In this talk we will describe the experiment and its various upgrades, and we will summarize the latest results on the energy spectrum, composition, and anisotropy of UHECR, obtained with nine years of observation. The energy spectrum measured by the TALE FD, extending from a low energy of 4 PeV to a high of few EeV, will be presented in some detail.

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