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Recent results of ultrahigh-energy cosmic rays observed with the Telescope Array Experiment

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The origin and acceleration mechanism of ultrahigh-energy cosmic rays (UHECRs) are of the upmost importance in particle astrophysics and astronomy. The Telescope Array Experiment (TA) is the largest cosmic ray detector in the Norther hemisphere, located near the town of Delta in central Utah, USA. TA consists of a surface detector array overlooked by fluorescence detectors and covers a ground area of 700 km². We will review a detection techniques and observational instruments, and present latest results focusing on three important measurements; energy spectrum, mass composition and arrival direction. Finally, we will highlight our ongoing upgrade and future perspectives.

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