## The 6th international conference on particle physics and astrophysics



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## **Highlights from the Telescope Array experiment**

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The Telescope Array (TA) is the largest cosmic ray observatory in the Northern Hemisphere. It is designed to measure the properties of cosmic rays over a wide range of energies. TA with it's low energy extension (TALE) observe cosmic ray induced extensive air showers between 2x10^15 and 2x10^20eV in hybrid mode using multiple instruments, including an array of scintillator detectors at the Earth's surface and telescopes to measure the fluorescence and Cerenkov light. The statistics at the highest energies are being enhanced with the ongoing construction of the TAx4 experiment which will quadruple the surface area of the detector. We review the present status of the experiments and most recent physics results on the cosmic ray anisotropy, mass composition and energy spectrum. Notable highlights include a new feature in the energy spectrum at about 10^19.2 eV, a new clustering of events in their arrival directions above this energy and an indirect estimation of heavy mass composition at energies higher than 10^20 eV.

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