

Abstract Submitted
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Measuring the ultra-high energy comic ray flux with the Telescope Array Middle Drum detector THOMAS SONLEY, University of Utah, TELESCOPE ARRAY COLLABORATION — The Telescope Array (TA) Experiment, located 200 kilometers southwest of Salt Lake City, Utah, is the largest Ultra-High Energy cosmic ray detector in the northern hemisphere. TA is a follow up to the High Resolution Fly's Eye (HiRes) and AGASA experiments, and seeks to gain insight into cosmic ray acceleration by measuring the flux of cosmic rays with energies over 10^{18} eV. The detector consists of 507 scintillator counters distributed in a square grid with 1.2 km spacing. Three fluorescence detector stations sit on the corners of a 30 km equilateral triangle overlooking the array of surface detectors, and provide full hybrid coverage with the scintillator array above 10 EeV. Telescope Array underwent commissioning in 2007 and began routine data collection operations at the beginning of 2008. One of the three fluorescence stations, the Middle Drum (MD) site, is instrumented with detectors previously used at the HiRes-1 site. The inclusion of the MD site makes possible a direct comparison between the fluorescence energy scales and spectra between TA and HiRes. We will present a progress report on the analysis of the TA data collected by the MD site.

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