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Hybrid Observation with the Telescope Array Observatory BENJAMIN STOKES, DMITRI IVANOV, Rutgers University, GORDON THOMSON, University of Utah, TELESCOPE ARRAY COLLABORATION — The Telescope Array (TA) is the largest ultra-high energy cosmic ray (UHECR) observatory in the Northern Hemisphere. TA observes cosmic rays with two principal components: Optical detectors use nitrogen fluorescence to observe the longitudinal development of cosmic ray extensive air showers (EAS) in the atmosphere while an array of scintillator counters captures the lateral cross sections of EAS at ground-level. While both methods of observation independently yield important information about the energy, composition, and arrival directions of UHECR, far better data resolution can be achieved by utilizing hybrid observation. We will present the results of a simulation study of TA hybrid efficiency and data resolution.

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