Abstract Submitted for the APR10 Meeting of The American Physical Society

Measurement of the Flux of Ultrahigh Energy Cosmic Rays by the Surface Detector of the Telescope Array Experiment GORDON THOM-SON, University of Utah, DMITRI IVANOV, BENJAMIN STOKES, Rutgers University, TELESCOPE ARRAY COLLABORATION — We have measured the flux of ultrahigh energy cosmic rays using the surface detector of the Telescope Array experiment. We developed an analysis technique based solely on the data, using parameterizations similar to those used in the AGASA experiment. We calculated the aperture of the detector by making a detailed Monte Carlo simulation of the experiment, and tested it by comparing distributions of kinematical and dynamical quantities with the data. The methods will be described and the results presented.

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