

Abstract Submitted
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Observation of Ultra High Energy Cosmic Rays by the Telescope Array Observatory¹ JOHN MATTHEWS², University of Utah - High Energy Astrophysics Institute, TELESCOPE ARRAY COLLABORATION — The Telescope Array cosmic ray observatory inhabits about 700 sq km of central Utah desert ~3 hours south of Salt Lake City and is a hybrid cosmic ray detector consisting of fluorescence telescopes observing the sky above an array of scintillator detectors which sample the charged particle density from cosmic ray induced extensive air showers. It is used to study the energy spectrum, chemical composition and anisotropy of cosmic rays. Recently we have extended the energy reach lower so that we observe over more than four decades of energy. We are also in the process of extending the Telescope Array aperture by a factor of 4 to better understand a “hot spot” in the northern sky which could turn out be the first observed source of ultra high energy cosmic rays. The experiment and its measurements will be introduced.

¹We appreciate the support of the NSF.

²Put with other telescope Array Talks

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