

Abstract Submitted  
for the APR16 Meeting of  
The American Physical Society

**Anisotropy of Ultra-High Energy Cosmic Rays Using Minimal Assumption Energy-Position Correlation with Telescope Array Data** JON PAUL LUNDQUIST, Telescope Array Project, TELESCOPE ARRAY COLLABORATION COLLABORATION — Presented is the result of an Ultra-High Energy Cosmic Ray (UHECR) anisotropy search using both incident particle energy and apparent originating position in the sky - 7 years of Telescope Array (TA) surface detector (SD) data are used. Deflection from sources of charged cosmic ray particles, by unknown intervening magnetic fields, complicate anisotropic density searches but are expected to create correlations between energy and position. A general method for examining these correlations should include as few assumptions as possible and be robust against background noise events. Outlined is an energy-position correlation anisotropy search with no assumptions made regarding source distribution, event composition or magnetic field configurations. This is done using an unbinned energy-opening angle rank correlation.

Jon Lundquist  
University of Utah

Date submitted: 08 Jan 2016

Electronic form version 1.4