



Contribution ID: 414

Type: **Oral contribution**

Ultra-High-Energy Cosmic-Ray Hotspot Observed with the Telescope Array Surface Detectors

Thursday, July 30, 2015 3:00 PM (15 minutes)

The Telescope Array Experiment has observed a cluster of ultrahigh energy cosmic rays, $E > 57$ EeV, called the Hotspot. This was reported in (Abbasi et al., ApJ, 790, L21 (2014)), and was centered in Ursa Major. Using the first five years of data collected by the TA surface detector, the chance probability of this hotspot in an isotropic cosmic-ray sky was calculated to be 3.4σ . In this work, we update this result using the latest data collected by the TA surface detector. We also discuss possible origins of the hotspot

Collaboration

Telescope Array

Registration number following "ICRC2015-I"

0107

Primary author: KAWATA, Kazumasa (ICRR, University of Tokyo)**Co-authors:** TAKETA, Akimichi (ERI, University of Tokyo); STOKES, Benjamin (University of Utah); IKEDA, Daisuke (ICRR, University of Tokyo); IVANOV, Dmitri (University of Utah); KIDO, Eiji (ICRR, University of Tokyo); THOMSON, Gordon (University of Utah); RUBTSOV, Grigory (INR RAS); SAGAWA, Hiroyuki (ICRR, University of Tokyo); TOKUNO, Hisao (ICRR, University of Tokyo); TKACHEV, Igor (INR RAS); MATTHEWS, John (University of Utah); TAKEDA, Masahiro (ICRR, University of Tokyo); FUKUSHIMA, Masaki (ICRR, University of Tokyo); SAKURAI, Nobuyuki (Nagoya University); TINYAKOV, Peter (Universite Libre de Bruxelles (ULB)); TAKEISHI, Ryuji (ICRR, University of Tokyo); NAGATAKI, Shigehiro (Yukawa Institute for Theoretical Physics, Kyoto University); OKUDA, Takeshi (Ritsumeikan University); NONAKA, Toshiyuki (ICRR, University of Tokyo)**Presenter:** KAWATA, Kazumasa (ICRR, University of Tokyo)**Session Classification:** Parallel CR03 Aniso**Track Classification:** CR-EX