



Contribution ID: 808

Type: **Poster contribution**

The distribution of shower longitudinal profile widths as measured by Telescope Array in stereo mode

Thursday 30 July 2015 15:30 (1 hour)

Observing UHECR air showers in stereo mode provides a precise measurement of their longitudinal profiles. The Gaisser-Hillas function fits air shower profiles well on average. The range of shower widths can be sensitive to details of average inelasticity and multiplicity in the early part of the shower. Such a measurement can then also be used to constrain the interaction models used in simulating UHECRs. This work can augment the conventional stereo composition measurement. The distribution of the Gaisser-Hillas function FWHM value will be made in bins of energy, matching the bins used in the stereo composition analysis. These distribution will then be compared to Monte Carlo simulations using standard interaction models (QGSJet, Sibyll, EPOS).

Collaboration

Telescope Array

Registration number following "ICRC2015-I/"

712

Author: BERGMAN, Douglas (University of Utah)**Presenter:** BERGMAN, Douglas (University of Utah)**Session Classification:** Poster 1 CR**Track Classification:** CR-EX