



Contribution ID: 44

Type: **not specified**

Deflections of UHECRs from Cen A in the Galactic magnetic field

Monday, 13 May 2013 16:54 (18 minutes)

The Galactic magnetic deflection of cosmic rays from a source strongly depends on the Galactic magnetic field (GMF) model. We use the recent GMF model of Jansson and Farrar (JF12), a 35-parameter model which includes coherent, striated and random components and is constrained by WMAP synchrotron maps and all available extragalactic rotation measures. Here, we present the results of propagating ultra-high energy cosmic rays (UHECRs) from Centaurus A, to characterize their arrival-direction locus and determine whether Cen A can be a significant source of the UHECR excess reported by the Pierre Auger Observatory within 18 degrees of Cen A. Simulations are done for rigidities $E/Z = 64$ EV down to 2 EV, thus covering the possibility of compositions as heavy as Fe for the published UHECR events.

Primary author: KEIVANI, Azadeh (Louisiana State University)

Co-author: Prof. FARRAR, Glennys (Center for Cosmology and Particle Physics, Department of Physics, New York University)

Presenter: KEIVANI, Azadeh (Louisiana State University)

Session Classification: Cosmic-Ray Theory / Experiments II

Track Classification: Cosmic Rays (Theory/Experiment) Parallel