

Abstract Submitted
for the APR12 Meeting of
The American Physical Society

Constraining the galactic magnetic field models AZADEH KEIVANI, Louisiana State University — Ultra-high energy cosmic rays (UHECRs) are deflected by the Galactic magnetic field (GMF) on their way to Earth. If UHECR properties were well-understood, it would be straightforward to model the intervening GMF. However uncertainties on the composition and source distribution complicate the issue. An independent method of constraining GMF models is using Faraday rotation measurements (RMs) of Galactic and extra-Galactic radio sources. Here we investigate a new composite method for constraining GMF models using simultaneous fits of UHECR and RM simulations. A simulated universe of UHECRs and Galactic RMs are used to test this method.

Azadeh Keivani
Louisiana State University

Date submitted: 04 Jan 2012

Electronic form version 1.4