Abstract Submitted
for the APR16 Meeting of
The American Physical Society

Investigation of Reacceleration on Cosmic Ray YUXI LU, NICOLAS PICOT-CLEMENTE, EUN-SUK SEO, Univ of Maryland-College Park — Cosmic rays are high energy charged particles, originating from outer space, that travel at nearly the speed of light and strike the Earth from all directions. One century after the discovery of cosmic rays, their origin and propagation processes remain obscure. GALPROP is a numerical code for calculating the propagation of relativistic charged particles and the diffuse emissions produced during their propagation in the Galaxy. I performed a preliminary study using two different propagation models with the GALPROP code in order to reproduce latest cosmic-ray nuclei measurements. I analyzed multiple propagation parameters for each model, studied their effect on cosmic-ray spectra, optimized and tried a preliminary modification of the code to fit cosmic-ray data such as BESS-Polar, AMS, CREAM, etc.

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Date submitted: 22 Jan 2016 Electronic form version 1.4