

Abstract Submitted
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BESS-Polar II Hydrogen and Helium Isotope Measurements to Constrain Cosmic-Ray Propagation Models NICOLAS PICOT-CLEMENTE, Institute for Physical Science and Technology, University of Maryland, BESS-POLAR COLLABORATION — The Balloon-borne Experiment with Superconducting Spectrometer BESS-Polar II flew over Antarctica for 24.5 days from December 2007 through January 2008, during the 23rd solar cycle minimum. The instrument is made of complementary particle detectors which allow to precisely measure the charge, velocity and rigidity of incoming cosmic rays. It can accurately separate cosmic-ray hydrogen and helium isotopes from 0.2 to 1.5 GeV/nucleon. Flux and secondary-to-primary ratios of these particles can bring important information to better understand the cosmic-ray propagation history in the Galaxy. BESS-Polar II provides the most precise isotope measurements to date between 0.2 and 1.5 GeV/nucleon. These data will be reported and constraints on cosmic-ray propagation models, using the GALPROP program, will be discussed.

Nicolas Picot-Clemente
Institute for Physical Science and Technology, University of Maryland

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