Abstract Submitted
for the APR09 Meeting of
The American Physical Society

Short term transient variation of the proton and helium fluxes during BESS-Polar I NEEHARIKA THAKUR, University of Denver, Denver, CO, USA, BESS POLAR I COLLABORATION — In addition to the long term solar modulation of the galactic diffuse cosmic ray flux due to the solar activity cycle, there may be short term transient variations caused by sudden solar magnetic activity. The causes of these transients are not yet completely understood. The BESS-Polar (Balloon-borne Experiment with a Superconducting Spectrometer) completed its first successful flight from Williams Field near McMurdo Station, Antarctica from December 13 – 21, 2004. One of its many goals is to study the day scale time variations in the galactic cosmic ray flux. Some variation in the cosmic ray flux was observed during this flight. An initial study shows that there is a correlation between the BESS-Polar I cosmic ray flux and neutron monitor data as well as the solar wind data. The proton and helium fluxes calculated from the BESS-Polar I data will be presented and compared to the magnetic field and solar wind data to better understand this phenomenon. Details of such studies will be presented.

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Date submitted: 12 Jan 2009 Electronic form version 1.4