

Abstract Submitted  
for the APR05 Meeting of  
The American Physical Society

**Cosmic Ray Energetics And Mass: First flight for 42 days** YOUNG SOO YOON, University of Maryland, CREAM COLLABORATION — The Cosmic Ray Energetics And Mass (CREAM) balloon-borne experiment had its first flight for nearly 42 days in Antarctica from Dec 15, 2004 to Jan 26, 2005. It made three circumnavigations around the South Pole, which broke both the duration and distance records for a long-duration balloon flight. CREAM was designed to measure the energy spectra and composition of cosmic rays with energies between 1 TeV and 1000 TeV. Incident particles are identified with both a timing charge detector and a silicon charge detector. Energy measurements are made with both a tungsten/scintillating-fiber calorimeter and a transition radiation detector. During the flight about 19 GBytes of data were transmitted to the Science Operation Center at the University of Maryland through telemetry. An onboard flash disk was used to record and store about 36 GBytes of additional heavy nuclei data. Preliminary results from the flight data will be presented.

Young Soo Yoon  
University of Maryland

Date submitted: 15 Feb 2005

Electronic form version 1.4