

Abstract Submitted
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Status and Plan of the ISS-CREAM Experiment NICOLAS PICOT-CLEMENTE, Institute for Physical Science and Technology, University of Maryland, ISS-CREAM COLLABORATION — The Cosmic Ray Energetics and Mass (CREAM) project began as a balloon-borne experiment, which was flown successfully for 161 days in six flights over Antarctica. It was subsequently reconfigured for implementation on the International Space Station (ISS) to provide an order of magnitude increase in the exposure time with no atmospheric overburden. The ISS-CREAM instrument is configured of four subsystems: four layers of silicon charge detector (SCD) for charge measurements, top and bottom counting detectors (TCD/BCD) for electron/proton separation, a calorimeter (CAL) for energy measurements, and a boronated scintillator detector (BSD) for additional electron/proton distinction. CREAM is designed to investigate cosmic-ray origin, acceleration, and propagation by directly measuring individual particles with energy between 10^{12} - 10^{15} eV and determining cosmic ray composition from protons to iron. The hardware was successfully tested, and remote monitoring and control capabilities were verified. It is scheduled for launch in 2016. The status and plan of the ISS-CREAM experiment will be presented.

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