Abstract Submitted
for the APR20 Meeting of
The American Physical Society

In-Flight Performance of ISS-CREAM Calorimeter Electronics[1]
RACHEL SCRANDIS, University of Maryland, College Park, ISS-CREAM COLLABORATION — The Cosmic Ray Energetics and Mass for the International Space Station (ISS-CREAM) instrument is comprised of a suite of particle detectors capable of continuously collecting cosmic ray data. By being in space, it is free from secondary particle background from the atmosphere present in the past balloon-borne CREAM instruments. One of the detectors comprising the ISS-CREAM instrument is the calorimeter, which measures the energy of the incoming cosmic rays between 10^{12} eV to 10^{15} eV using 20 layers of tungsten plates and scintillating fibers. Since its activation, the calorimeter recorded pedestal data, on an hourly basis, in all 2560 electronic channels during the flight. This hourly data, including the mean and root mean square, for August 17th, 2017 to February 12th, 2019, were analyzed. We will present results such as correlation between instrumentation and environmental variables with the pedestal data.

[1]The authors thank NASA for supporting the ISS-CREAM payload development, successful launch and accommodation on the ISS.

Rachel Scrandis
University of Maryland, College Park

Date submitted: 23 Jan 2020 Electronic form version 1.4