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Preliminary cosmic-ray elemental spectra from the ISS-CREAM experiment[1] GWANGHO CHOI, SungKyunKwan University, Rep. of Korea, ISS-CREAM COLLABORATION — The Cosmic Ray Energetics And Mass for the International Space Station (ISS-CREAM) experiment is designed for measurements of energy spectra and elemental composition of cosmic rays. It was launched and installed on the International Space Station (ISS) in August 2017. The ISS-CREAM instrument can measure protons to iron nuclei in the energy range of TeV PeV. For the elemental identification of cosmic rays, we use the silicon charge detector (SCD) placed at the top of the ISS-CREAM payload. The four-layer SCD consists of 10,752 silicon pixels, and active area in each layer is 78.2 x 73.6 cm^2. Each pixel is 1.37 x 1.57 x 0.05 cm^3 in size. Our preliminary analysis shows good performance of the SCD throughout the flight with charge resolutions of 0.1 0.3e for protons to iron nuclei. The multilayer configuration provides redundant charge measurements and reduces risks associated with operation in space environment. The energy measurements are made with the calorimeter with carbon target, which provides the tracks of incident cosmic rays. We will report preliminary spectra and elemental composition of the high energy cosmic rays using the data accumulated on the ISS. In this study, we tried to Machine learning for separating the backscattering and incident particles.

Gwangho Choi
University of Maryland, College Park

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