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Type: **Poster contribution**

Heavy ion beam test at CERN-SPS with the CALET Structure Thermal Model

Thursday 30 July 2015 15:30 (1 hour)

We will report testing and calibration of the heavy-ion energy and charge resolution of the CALET cosmic-ray instrument that will fly on the International Space Station in 2015. The beam tests were carried out using a test instrument that is functionally equivalent to CALET. CALET will measure the energy spectra and arrival directions of cosmic-ray electrons to 20 TeV and hadrons to 1 PeV with exceptional resolution. It will measure the spectra of high-energy nuclei to about $Z=40$. It will also measure the cosmic gamma radiation with superior resolution to search for signatures of dark matter annihilation in the gamma-ray and electron spectra. We performed beam tests at CERN-SPS in February and March 2015 to calibrate energy, angular and charge resolution with direct primary beams and secondary fragments of Ar of 13, 19, and 150 A GeV/c. The beam tests were carried out using a test instrument that is functionally equivalent to the calorimeter (CAL) of CALET. I will present our ion run purpose and experimental method and setups, and preliminary results.

Collaboration

CALET

Registration number following "ICRC2015-I"

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