

Abstract Submitted
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CALET On-orbit Calibration and Performance¹ YOSUI AKAIKE,
USRA-GSFC, CALET COLLABORATION — The CALorimetric Electron Telescope (CALET) was installed on the International Space Station (ISS) in August 2015, and has been accumulating high-statistics data to perform high-precision measurements of cosmic ray electrons, nuclei and gamma-rays. CALET has an imaging and a fully active calorimeter, with a total thickness of 30 radiation lengths and 1.3 proton interaction lengths, that allow measurements well into the TeV energy region with excellent energy resolution, 2% for electrons above 100 GeV, and powerful particle identification. CALET's performance has been confirmed by Monte Carlo simulations and beam tests. In order to maximize the detector performance and keep the high resolution for long observation on the ISS, it is required to perform the precise calibration of each detector component. We have therefore evaluated the detector response and monitored it by using penetrating cosmic ray events such as protons and helium nuclei. In this paper, we will present the on-orbit calibration and detector performance of CALET on the ISS.

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Yosui Akaike
USRA-GSFC

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