

Calibration of HEP instrument onboard Arase using Geant4

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High-Energy electron Experiment(HEP) instrument onboarded the Arase satellite has continuously observed since March 2017. The HEP instrument was designed to observe 70 keV - 2 MeV electrons of the radiation belts.. The HEP instrument is affected from background particles such as SEP as well as the trapped proton, and careful calibration is necessary to obtain the data. In this study, using the Geant4 simulation tool, we conducted the Monte-Carlo simulation for incoming particles to estimate effects from background particles and to establish a guideline for calibration of the observed data. In the presentation, we will report characteristics of flux dropout of the outer belt during the storm main phase observed by Arase/HEP.

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