

The First Result from DAMPE

Tuesday, 16 October 2018 09:30 (15 minutes)

The DARK Matter Particle Explorer (DAMPE) experiment began its on-orbit operations on December 17, 2015. The main goal of DAMPE is the detection of cosmic rays and gammas from the GeV to the TeV energy region to search for dark matter and understanding the origin of the cosmic rays. The BGO Electromagnetic Calorimeter (BGO ECAL) of the DAMPE is a total absorption calorimeter that allows for a precise three-dimensional imaging of the shower shape. It provides a good energy resolution ($<1\%$ @200GeV) and high electron/hadron discrimination (>105). With the data set acquired during the first and a half years of operation in space, a precise time-dependent calibration for energy, shower topologies measured by the BGO calorimeter had been developed. The first result of high energy electron/positron spectrum which directly measured in space by DAMPE also will be presented.

Primary author: 张, 云龙 (中国科学技术大学)

Presenter: 张, 云龙 (中国科学技术大学)

Session Classification: 第一分会场 (1)

Track Classification: 核探测器及其应用的研究成果