Contribution ID: 164

Type: Oral report

Measurements of the boron-to-carbon and boron-to-oxygen flux ratios in cosmic rays with DAMPE

DAMPE (DArk Matter Particle Explorer) is the first Chinese satellite-borne experiment searching for dark matter and exploring the origin of the cosmic rays. It has been taking data for more than 8 years since its successful launch in December 2015. Spectral measurements of secondary nuclei such as lithium, beryllium, and boron, are mainly produced by the fragmentation of heavier nuclei, such as carbon and oxygen. The boron-to-carbon flux ratio (B/C) and the boron-to-oxygen flux ratio (B/O) are fundamental to improve our understanding of cosmic ray acceleration and propagation. In this work, the direct measurements of B/C and B/O at the energy from 10 GeV/n to a few TeV/n will be presented.

Primary authors: ZHAN-FANG, Chen (近代物理所); 岳, 川 (Purple Mountain Observatory); 徐, 恩珩 (中国科学技术大学 USTC); 魏, 逸丰 (University of Science and Technology of China)

Presenter: 徐, 恩珩 (中国科学技术大学 USTC)

Track Classification: 中微子物理、粒子天体物理与宇宙学