

Latest results of the DArk Matter Particle Explorer

The DArk Matter Particle Explorer (DAMPE) is a satellite-based cosmic ray and gamma ray detector. It has been operating smoothly in space since December 2015. The main scientific objectives of DAMPE are (1) indirect detection of possible dark matter signatures, (2) studying the origins, acceleration and propagation mechanisms of cosmic rays, and (3) gamma-ray physics. In this contribution, we first give an overview of the DAMPE mission and its on-orbit operational status. Then, highlight scientific results are presented, including the measurements of the cosmic-ray electron-plus-positron spectrum, the spectra of primary cosmic-ray species, the secondary to primary flux ratio and more. Finally, the ongoing efforts for lepton, light, and heavy hadron cosmic rays are briefly discussed along with the new data analysis techniques.

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