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Latest results from the DAMPE space mission

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The space-based DAMPE (DARK Matter Particle Explorer) detector has been taking data since its successful launch in December 2015. Its main scientific goals include the indirect search for dark matter signatures in the cosmic electron and gamma-ray spectra, the measurements of galactic cosmic ray fluxes from tens of GeV up to hundreds of TeV and high energy gamma ray astronomy above a few GeV.

The measurements of galactic cosmic ray spectra will be reported, those being fundamental tools to investigate the mechanisms of acceleration at their sources and propagation through the interstellar medium. In particular, results on proton and helium, which revealed new spectral features, will be described. Ongoing analyses on light, medium, and heavy mass nuclei will be outlined, together with results on secondary-to-primary flux ratios.

Finally, the latest results on gamma-ray astronomy and dark matter search will be also summarized.

Submitted on behalf of a Collaboration?

Yes

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