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Main scientific results of the DAMPE mission

Thursday, 6 September 2018 09:00 (30 minutes)

The DArk Matter Particle Explorer (DAMPE) is a space mission, resulting from the collaboration of Chinese, Italian, and Swiss institutions. Since December 2015, DAMPE orbits at the altitude of 500 km and collects data regularly. The detector is made of four sub-detectors: top layers of plastic scintillators, a silicon-tungsten tracker, a deep BGO calorimeter (32 radiation lengths), and a bottom boron-doped scintillator to detect delayed neutrons. The main goal of the mission is the search of indirect signals of Dark Matter in the electron and photon spectra with energies up to 10 TeV. Furthermore DAMPE is studying cosmic charged and gamma radiation. The calorimeter depth and the large effective acceptance allow to measure cosmic ray fluxes in the range from 20 GeV up to hundreds of TeV. An overview of the latest results about electron and positron flux, light component (p+He) of charged cosmic rays, and gamma rays will be presented.

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