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Latest Results from the Alpha Magnetic Spectrometer on the International Space Station

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The Alpha Magnetic Spectrometer (AMS) is a precision particle physics detector operating on the International Space Station. Since 2011, AMS has collected more than 250 billion charged cosmic rays, from elementary particles to iron nuclei with energies up to multi-TeV. The high-precision measurements with ~1% accuracy, over a solar cycle, have led to many surprising observations. The latest results on cosmic elementary particles (electrons, positrons, antiprotons, and protons) reveal unique properties and indicate new sources of particles and antiparticles. The data on nuclei and isotopes exhibit characteristic energy dependences that are not explained by current theories. The comprehensive AMS data requires a new model of the cosmos.

Collaboration(s)

AMS

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