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Solar Modulation studies with the Alpha Magnetic Spectrometer

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The Alpha Magnetic Spectrometer (AMS), on the International Space Station (ISS) since May 2011, has acquired the largest number of particles ever measured in space by a single experiment, performing the most precise measurement of galactic cosmic rays (GCR) to-date. The detailed time variation of multiple particle species fluxes measured in the first years of operations, during the ascending phase of solar cycle 24 and reversal of the Sun's magnetic field polarity (from negative $A < 0$ to positive $A > 0$). For all particles, the high energy spectrum remains stable versus time, while the low-energy range is strongly modulated by the solar activity. In addition, AMS measured several Forbush decreases (FD) and solar energetic particles (SEP) associated with the short term solar activity.

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