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# Short-term Solar Activity Measured by AMS-02

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The Alpha Magnetic Spectrometer (AMS-02) with its acceptance of about 0.45 $m^2$ sr, is the largest Solar Energetic Particle (SEP) detector in space. It was installed on the International Space Station (ISS) on May 19, 2011, where it will take data for the duration of the station (~2024). In the first 3 years of operations, AMS-02 detected and measured many events related to short-term solar activity, including 1) the highest energy SEPs produced during M- and X-class flares and fast coronal mass ejections and 2) temporary reductions in GCR flux, known as Forbush decreases. AMS-02 is able to perform precise measurements in a short period of time, which is typical of these transient phenomena, and to collect enough statistics to measure fine structures and time evolution of the spectrum. Preliminary analyses of selected Forbush decreases and SEP events will be presented. AMS-02 observations, with their unprecedented resolution and high statistics, can therefore help to understand the influence of short-term solar activity on the proton flux at Earth.

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