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Solar Energetic Particles and Daily GCR Variability Measured by AMS

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The Alpha Magnetic Spectrometer (AMS) experiment was installed on the ISS on May 19, 2011, during the ascending phase of solar cycle 24. It will take measurements until the end of ISS operations, into the rise of solar cycle 25. It is the largest experiment capable of directly measuring Solar energetic particles (SEPs) with energies of about a few hundred MeV and above. In its first five years of operation, AMS has measured 27 SEP events; most associated with M-and X-class flares with associated fast coronal mass ejections (v > 1000 km/s). Selected SEP events measured by AMS will be presented. Furthermore, AMS serves as an important monitor of daily particle population variability in low earth-orbit. Daily variability and Forbush decreases detected by AMS will be presented.

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