

Solar Energetic Particles (SEP), Solar Modulation and Space Radiation: New Opportunities in the AMS-02 Era #2

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Solar Energetic Particles Measured by AMS

Solar energetic particles (SEPs) with energies of about a few hundred MeV and above are not well studied. AMS was installed on the ISS on May 19, 2011, during the ascending phase of the solar cycle; it will take measurements until the end of ISS operations, covering solar cycle 24 and beyond. It is the largest experiment capable of studying these particles directly. In its first five years of operation, AMS has measured numerous SEP events associated with M- and X-class flares with associated fast coronal mass ejections. These observations, with high particle statistics and resolution, can be used to constrain models of SEP acceleration and propagation. Selected SEP events measured by AMS will be presented.

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