

Forbush decreases measured by the Alpha Magnetic Spectrometer on the International Space Station

The Alpha Magnetic Spectrometer (AMS) was installed on the International Space Station in May 2011. During the first 5 years of operations, AMS observed several fast depletions of the galactic cosmic ray (GCR) flux followed by a recovery period. These phenomena are called Forbush decreases (FDs) and are temporary decreases in GCR flux due to heliospheric disturbances. Thanks to its large acceptance and particle detection capabilities, AMS precisely measures the time evolution of FDs at different rigidities and for different particle species. Data of this kind is completely new to the study of Forbush decreases.

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