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AMS Tracking

AMS-02 is a high precision magnetic spectrometer for cosmic rays in the GeV to TeV energy range. Its tracker consists of nine layers of double-sided silicon microstrip sensors. They are used to locate the trajectories of cosmic rays in the 0.14 T field of a cylindrical magnet, thus measuring their rigidity and charge sign. In addition, they deliver a high resolution measurement of the absolute charge |Z|. The detector has been designed to operate in space with a position resolution of about 10 μ m for each hit and charge identification capabilities up to Z=26. In this talk I describe the performance in orbit of this detector component and its impact on the overall performance of the spectrometer.

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