

## The Alpha Magnetic Spectrometer on the International Space Station

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**Abstract:** The Alpha Magnetic Spectrometer (AMS-02) is a precision large-acceptance high energy particle detector which was successfully deployed on the International Space Station (ISS) in 2011. It is a unique long duration (20 years) experiment in space. To date, the detector has collected over 40-billion cosmic ray events. Among the physics objectives of AMS are a search for the understanding of Dark Matter, Antimatter, the origin of cosmic rays and the exploration of new physics phenomena not possible to study with ground-based experiments. This report overviews operations and performance of the AMS-02 detector on the ISS as well as the first results based on data collected during the first two years of operations in space.

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**Not available.**