

# Latest results from the AMS-02 experiment in space

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The Alpha Magnetic Spectrometer (AMS-02) has been in operation on the International Space Station since May 19th, 2011, and it will continue its mission for the duration of the space station's operational lifespan. Throughout its data-taking period in space, AMS-02 has successfully registered a remarkable count of over 200 billion cosmic-ray events.

AMS-02 has been primarily designed to fulfil two significant objectives. Firstly, it aims to explore the presence of antimatter and dark matter within the cosmos. Secondly, it is dedicated to the exquisite measurement of cosmic-ray composition and flux within the energy range of GeV to TeV. The instrument has provided precise data concerning cosmic-ray nuclei, spanning from Hydrogen to Silicon, and even Iron. Furthermore, this data has enabled comprehensive discussions regarding the associated spectral characteristics.

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