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Alpha Magnetic Spectrometer on the International Space Station

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The Alpha Magnetic Spectrometer (AMS) is a multi-purpose, large acceptance, precision magnetic spectrometer to be installed on the International Space Station (ISS) via Space Shuttle STS-134, currently scheduled to launch on July 29, 2010. AMS is a US DOE-lead international collaboration involving 16 countries and 60 institutes. AMS will measure gamma rays, charged particles and nuclei to the TeV region. Some of the physics objectives are to search for the origin of dark matter, search for the existence of antimatter, search for the existence of strangelets, and precision study of cosmic rays and gamma rays. The construction of the detector was completed mostly in Europe and Asia. It will be the only large physical science experiment on the ISS.