



Particle Detector Hunts for 'Dark Matter' in Space

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NASA

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The Alpha Magnetic Spectrometer attached to the International Space Station. New research published Thursday in the journal *Physical Review Letters* shows researchers are making important progress in the hunt for dark matter, using the Alpha Magnetic Spectrometer

(AMS) - a state-of-the-art cosmic ray particle physics detector located on the exterior of the International Space Station.

The results include new detections of anti-matter particles that could provide new clues in the search for dark matter — invisible matter that can't be directly detected but can be inferred. An overview of the latest findings can be found [here](#).

"The AMS results announced today are tremendously provocative, and will drive scientists around the world to continue pursuing one of the biggest mysteries in the cosmos: dark matter," NASA chief scientist Ellen Stofan said at the agency's headquarters in Washington. "The clear and definitive data from AMS represent the caliber of scientific discovery enabled by our unique laboratory in space, the International Space Station. Today we are one step closer to answering the fundamental questions about how our universe works, and we look forward to many more exciting twists in this developing story."

AMS was constructed, tested and operated by an international team of 56 institutes from 16 countries and organized under the sponsorship of the U.S. Department of Energy's Office of Science. NASA's Johnson Space Center in Houston manages the AMS Integration Project Office. AMS was launched on space shuttle Endeavour on May 16, 2011. Operations on the space station began three days later. AMS continues operations aboard the station today.

For more information about AMS and the International Space Station, visit NASA's [International Space Station webpage](#).

For more information about dark matter, read NASA's feature on ["What is Dark Matter?"](#).

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