# Scientists behind the $2 billion Alpha Magnetic Spectrometer experiment reported...

AMS Space Experiment Sees Hints of Dark Matter Particles.Scientists behind the $2 billion Alpha Magnetic Spectrometer experiment reported new data pointing toward the potential detection of dark matter particles on Thursday. The AMS experiment is bolted onto the exterior of the Int


A- A+

AMS Space Experiment Sees Hints of Dark Matter Particles.

Scientists behind the $2 billion Alpha Magnetic Spectrometer experiment reported new data pointing toward the potential detection of dark matter particles on Thursday. The AMS experiment is bolted onto the exterior of the International Space Station, and has been collecting cosmic-ray data since 2011. Researchers led by MIT physicist Sam Ting are watching for telltale patterns in the shifting balance between electrons and positrons, their antimatter equivalent, at higher and higher energies.

Now that 41 billion cosmic-ray events have been analyzed, the AMS team is reporting a drop in the proportion of positrons, followed by a rise, followed by another drop. Symmetry magazine reports that the rise and second drop could point to the existence of a previously undetected particle or particles, with a mass between 8 and 257 gigaelectronvolts. Such particles — for instance, neutralinos — could help account for dark matter, the invisible stuff that makes up about 23 percent of the universe. The findings were published in Physical Review Letters — but more readings, and more analysis, will be required to support the dark-matter claim.

IN-DEPTHThe Next Big Thing in Physics? Dark MatterGallery: Dark Matter Revealed!Did Dark Matter Doom the Dinosaurs?SOCIAL

— Alan Boyle

Source: nbc