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[\[International Participation\]\[AerospaceTech\] Taiwan Takes Part in AMS Project, Joining International Cosmic Particles Investigation](#)

[International Participation][AerospaceTech] Taiwan Takes Part in AMS Project, Joining International Cosmic Particles Investigation ([Chinese Version](#))

Now News (2011/05/23) & CNA (2011/05/22) The Alpha Magnetic Spectrometer No. 2 (AMS-02), which is to be carried to the International Space Station (ISS) by the space shuttle "Endeavour" for the investigation of cosmic-ray collision, has been fully installed and tested. In the future, the spectrometer will be mounted in ISS, measure more than ten thousands times of cosmic-ray collisions per minute and send the data back to the Earth for the cosmic particles investigation. Several institutions in Taiwan take parts in the project including Chung-Shan Institute of Science and Technology, Academia Sinica, National Central University, National Space Organization (NSPO), etc. Among these institutes, Chung-Shan Institute of Science and Technology is in charge of the significant electronic system, which transforms the collected cosmic data into electronic signals and deliver the signals back to the Earth.

Cosmic-rays are highly energetic particles moving in the space at the speed approaching that of light. AMS project aims at understanding the origin of the universe through the investigation of these energetic particles. Most of the astrophysicists believe that these high energy particles come from the tangled magnetic field around a supernova or the core of an active galaxy. The astrophysicists plan to know more about how and where these cosmic rays are propagated by collecting and analyzing a mass data about the moving directions and energy levels of these cosmic rays, so that more knowledge about the cosmic origin could be obtained.

The principal investigator of AMS is Nobel laureate particle physicist Samuel TING, who is also an Academician at Academia Sinica. The international cooperation project includes scientists from 16 countries. The project, aiming at particles studies and the searching for antimatter as well as dark matter, is regarded as an endeavour of looking for the proof for the Big Bang theory.

The testing result of the AMS-01 mounted in a space shuttle in 1998 has already suggested that the spectrometer is highly potential for particles studies. According to the project plan, AMS-02 will not stop operating on ISS until 2020.

Further Information:

[Now News 2011/05/23](#) (Chinese)

[CNA 2011/05/22](#) (Chinese)

[National Science Council International Cooperation Sci-Tech Newsbrief](#)

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