

techman / July 26, 2011 08:22AM

[\[International Cooperation\]\[Astrophysics\] Taiwanese Astronomers Find Gamma Ray Emissions in Southern Cross Binary Star](#)

[International Cooperation][Astrophysics] Taiwanese Astronomers Find Gamma Ray Emissions in Southern Cross Binary Star ([Chinese Version](#))

Taipei Times (2011/07/24) Astronomers in Taiwan recently discovered gamma ray emissions in a binary star system in the Southern Cross.

The discovery was made by a research team led by Professor Albert KONG at the Institute of Astronomy and Department of Physics, National Tsing Hua University, in collaboration with academics from Hong Kong and South Korea.

According to the National Science Council, which funded the six-member research team, the discovery was made in October last year. The results of that work were published in the Astrophysical Journal Letters on July 20 Wednesday, ahead of a group of 173 US researchers who had also discovered the phenomenon.

The team said most binary systems are composed of two stars or a massive star with a white dwarf — a small star composed mostly of electron-degenerate matter and is very dense. However, the binary system, labeled PSR B1259-63/LS 2883, that the group has been observing is composed of a star nine times larger than the sun and a neutron star about the size of Hsinchu City.

Pak-hin TAM, group researcher and the initial discoverer of the phenomena, said he had been observing the binary star since last October when the neutron star approached the star and observed the rare gamma ray emission in mid-November.

“Because the signal was too weak, the discovery was questioned by other astronomers,” he said, adding that “surprisingly, we discovered the rays beginning from January and the signal was many times stronger than the previous [observation].”

“It is an unprecedented discovery and there is currently no recognized explanation,” he added.

The group said the discovery could help tell us more about the interaction mechanism between a massive star and neutron star.

Related Historical Messages:

[\[International Participation\]\[AerospaceTech\] Taiwan Takes Part in AMS Project, Joining International Cosmic Particles Investigation 2011/05/23](#)

[\[International Engagement\]\[Astrophysics\] NTU-LeCosPA Joins International Satellite Telescope Project Monitoring Gamma Ray Bursts 2011/05/13](#)

Reference:

[Taipei Times 2011/07/24](#)

[CNA 2011/07/20](#) (Chinese)

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

Edited 1 time(s). Last edit at 07/26/2011 08:23AM by techman.
