
PRIZE

On April 18, 2006, the Science and Technology Award by Ministry of Education, Culture, Sports, Science and Technology was resented to a space plasma study team of Hiroshi Matsumoto, Yoshiharu Omura, and Hirotsugu Kojima for “Discovery and Theoretical Analysis of Electrostatic Solitary Waves in Space Plasmas by a Scientific Satellite”

Electrostatic Solitary Waves (ESW) were observed by an innovative plasma wave instrument on board the Geotail satellite, launched in 1992. The formation process of the ESW were also reproduced by computer simulations, and its physical mechanism has been analyzed theoretically. ESW are identical to wave phenomena called Broadband Electrostatic Noise (BEN) which is a special wave frequency spectrum observed in the plasma sheet boundary layer of the Earth's magnetotail. The plasma wave observation by the Geotail satellite has revealed that the real characteristic of BEN is not a noise but coherent solitary waves resulting from a nonlinear evolution of an electron beam instability as verified in the computer simulation. The existence of such electron beam has also been confirmed in the observation by the Geotail satellite. The successful plasma wave observations by the Geotail satellite substantially influenced plasma wave observations by spacecraft launched after the Geotail satellite. Various types of ESW have been found in other regions of the magnetosphere, such as magnetosheath and auroral regions. The discovery of ESW has stimulated development of nonlinear theories of electrostatic potential structures and related numerical simulation studies.

Professor Shoichiro Fukao and Dr. Hiroyuki Hashiguchi received Minister's Prize for Science and Technology from the Ministry of Education, Culture, Sports, Science and Technology of Japan

In April 2006, Professor Shoichiro Fukao and Dr. Hiroyuki Hashiguchi of Research Institute for Sustainable Humanosphere, Kyoto University, and Shinichiro Watanabe of Mitsubishi Electric Corporation received Minister's Prize for Science and Technology from the Ministry of Education, Culture, Sports, Science and Technology of Japan for their outstanding contribution to development of lower-tropospheric wind profiling radar. The Minister's Prize for Science and Technology is to commend individuals who have made outstanding achievements in science and technology fields.

Professor Shoichiro Fukao received the Okawa Publications Prize

In November 2006, Professor Shoichiro Fukao received the Okawa Publications Prize for his outstanding book entitled, “Radar System studies for Atmospheric Remote Sensing,” which was published by Kyoto University Press in March 2005. He received the prize with Kyosuke Hamazu of Mitsubishi Electric Corporation, coauthor of the book. The Okawa Publications Prize is to give public recognition and to promote outstanding publications in the field of information and telecommunications.

Mr. Hajime Nagata received Student Presentation Award (Aurora Medal) from the Society of Geomagnetism and Earth, Planetary and Space Sciences (SGEPSS)

Mr. Hajime Nagata received Student Presentation Award (Aurora Medal) from the Society of Geomagnetism and Earth, Planetary and Space Sciences (SGEPSS) for his outstanding presentation entitled, “Cirrus cloud observation in the tropical troposphere by the Equatorial Atmosphere Radar and the 95-GHz cloud profiling radar” at the 120th SGEPSS General Assembly in November 2006. The Student Presentation Award is a prize for students in geomagnetism and earth, planetary and space sciences, and presented for commendation of their excellent presentation at autumn meetings of SGEPSS.