

10. Research Enhancement Strategy Office

The Research Enhancement Strategy Office (RESO) was founded in October 2013, and three University Research Administrators (URAs) were assigned for the purpose of

- (1) encouraging collaborative research
- (2) supporting young researchers
- (3) enhancing public relations.

In order to assist the URAs, three Task Groups were organized in the RESO, which consist of a manager, a URA and a few senior researchers.

The Collaborative Research Enhancement Task Group cooperates with the Collaborative Research Enhancement Committee of NIFS for promoting collaboration researches. The Public Relations Enhancement Task Group cooperates with The Division of External Cooperation of NIFS for promoting public relations. The Young Researchers Development Task Group cooperates with The Evaluation Task Group of NIFS.

Three managers of the Task Groups are the members of the Board of Directors and Research Enhancement and Promotion where the important administrative matters are discussed, so that the plan of RESO would be executed smoothly inside the institute.

It is to be noted that the activities of the RESO is linked to the Research Enhancement Promotion Headquarters of NINS.

The activities of RESO in this year are highlighted as follows;

- (1) The RESO sent four researchers to the Max Planck Institute of Plasma Physics (IPP) each for more than 2 months corresponding with the successful beginning of the plasma experiment of W7-X. They joined W7-X team to build up networks of communications, and to experience the start-up of the large-scale fusion device. The RESO also sent a researcher to the Institute for Magnetic Fusion Research (IRFM) in France, for attending the program workshop of the WEST, the superconducting tokamaks for SSO study.
- (2) The RESO reinforced the ties between NIFS and Princeton University in cooperation with the NINS CRA and URA posted in Princeton University, for promoting the interdisciplinary researches including cosmic and fusion plasma.
- (3) The RESO held the “International Workshop on the Deuterium experiment in LHD” on 9 - 10 February 2016, at NIFS, and invited leading researchers from EU, U.S.A, Korea and China.
- (4) The RESO coordinated the conclusion of the new bilateral scientific agreement between NIFS and

HiLASE, which is the center of laser technology research in Czech, to enhance the collaborative research.

- (5) RESO took the lead in the five press releases of NIFS for “Developing an Electron Density Diagnostic Method for Atmospheric-Pressure Low-temperature Plasma for Environmental Protection and Medical and Biological Uses”, “A Two-dimensional Microwave Camera Has Been Developed: Anticipating Applications for Safe Passage through Dense Fog, Underground Exploration, and Non-destructive Investigation”, “Discovery of a New Confinement State for Plasma: The Result of a Japan-America Joint Research”, “Accelerating Fusion Research through the Cutting Edge Supercomputer: Difference of Particle Species Suppresses Plasma Turbulence”, and “Abrupt Excitation Phenomenon in High-temperature Plasma: The Discovery of Phenomena and Prospects from Theory”.
- (6) RESO also carried out various outreach activities on the basis of fusion community, in collaboration with the Japan Society of Plasma Science and Nuclear Fusion, Fusion Energy Forum etc. The promotional video of NIFS in Japanese and in English were completed by taking account of the deuterium experiment that will begin in March, 2017.
- (7) RESO supported five original research plans of young scientists to foster the basic scientific capacity of young scientists, and supported two international research plans proposed by young scientists, compensating the large reduction of the funding from the Graduate University of Advanced Study (Sokendai) for sending young scientists to over-seas research institutions or universities.
- (8) RESO revised the NAIS for the publication lists. Previously NAIS offered a single formulated publication list for the user based on the registered records in NAIS, which has the user name as a first-author. Because the paper publication list that includes papers with the author name in any position of the author list has become more standard than the first-author publication list, the new version of NAIS gives 8 different forms of publication list including the first-author list and the co-author list. Discussions for the program named NOUS (NINS Open Use System) started last year and RESO contributes to the designing of the system based on the experience of NAIS system in NIFS.

(Muroga, T.)