

III. International Collaboration

A large part of the research activities in the National Institute for Fusion Science (NIFS) is strongly related to the international collaborations with many countries in the world. These collaborations are carried out in various frameworks: multilateral international collaborations, bilateral ones, programs based on governmental or inter-institutional agreements and finally personal exchanges. They are mostly supported by Grant-in-aid of Scientific Research of the Ministry of Education, Culture, Sport, Science and Technology (MEXT) and various program of the Japan Society for the Promotion of Science (JSPS). A detailed description of activities is given in the following tables.

NIFS has four multilateral collaborations: the US-Japan (Universities) Fusion Cooperation Program, the IEA TEXTOR Collaboration, IEA Stellarator-Heliotron Agreement, and IEA Spherical Tori Agreement. Agreements on academic exchange and cooperation have been signed up in order to promote scientific exchanges between NIFS and

foreign institutes. Table I shows these agreements in the order of the time of enforcement. Grant-in-Aid for International Scientific Research programs and individual travel grants for participating overseas international symposia and conferences (both being supported by MEXT) have effectively functioned to promote international activities of NIFS.

Guest professors (supported by MEXT), who stayed for more than three months, and research fellows (JSPS research fellowship) are listed up in Tables II and III, respectively. The 22nd International Toki Conference on "Cross-Validation of Experiment and Modeling for Fusion and Astrophysical Plasmas" was held on 19 - 22 in November, 2012, NIFS being as the host institute.

Statistics of visitors and visit by NIFS staff in FY2012 are as follows: foreign scientists from more than 10 countries visited NIFS 109 person-times, and NIFS staff went abroad 292 person-times (to more than 10 countries).

(Okamura, S.)

Table I. List of Academic Exchange and Cooperation Agreement with NIFS

<i>Organization</i>	<i>Country</i>	<i>Effective from</i>
Institute of Plasma Physics, Academia Sinica	China	June 27, 1992
Max-Planck Institute for Plasma Physics	Germany	May 11, 1993
Kurchatov Institute of Nuclear Fusion	Russia	May 13, 1993
Kharkov Institute of Physics and Technology	Ukraine	Oct. 7, 1994
The Australian National University	Australia	May 8, 1995
National Fusion Research Institute	Korea	March 6, 1996
Karlsruhe Institute of Technology	Germany	Oct. 6, 2005
Princeton Plasma Physics Laboratory	U.S.A.	March 3, 2006
Institute for Fusion Studies, The University of Texas at Austin	U.S.A.	March 6, 2006
Oak Ridge National Laboratory	U.S.A.	May 25, 2006
UCLA, Center for Energy Science and Technology Advanced Research	U.S.A.	Nov. 28, 2006
Aix-Marseille University	France	July 19, 2007
A.M. Prokhorov General Physics Institute	Russia	Oct. 15, 2007
Associated International Laboratory (LIA): Centre National de la Recherche Scientifique (CNRS), Aix-Marseille University, Kyushu University, Osaka University	France	Oct. 22, 2007
Research Center for Energy, Environment and Technology (CIEMAT)	Spain	Feb. 26, 2009
ITER International Fusion Energy Organization(ITER)		Feb. 2, 2011
FOM Institute for Plasma Physics'RIJNHUIZEN'	Netherland	Feb. 4, 2011
Southwest Institute of Physics	China	April 18, 2012

Table II. List of Guest Professors in FY2012

<i>Name</i>	<i>Organization</i>	<i>Country</i>	<i>Term</i>
VYACHESLAVOV, Leonid, Nikolaevich	Budker Institute of Nuclear Physics	Russia	May 20, 2012 - Aug. 25, 2012
PING, Zhu	University of Wisconsin-Madison	U.S.A.	Jul. 1, 2012 - Oct. 7, 2012
GRULKE, Olaf	Max-Planck-Institute for Plasma Physics	Germany	Jul. 16, 2012 - Oct. 19, 2012
JAKUBOWSKI, Marcin	Max-Planck-Institute for Plasma Physics	Germany	Oct. 22, 2012 - Jan. 26, 2013
PARK, Jong-kyu	Princeton Plasma Physics Laboratory	U.S.A.	Nov. 11, 2012 - Feb. 12, 2013

Table III. List of JSPS invited fellows for NIFS in FY2012

(1) Postdoctoral Fellowships for foreign Researchers

None

(2) Invitation Fellowship Programs for Research in Japan

<i>Name</i>	<i>Organization</i>	<i>Country</i>	<i>Term</i>
GERARD, Daniel O'Sullivan	University College of Dublin	Ireland	Feb.28, 2013 - Mar.22, 2013