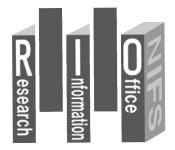# 13. Activities of Research Information Office (RIO)

1. Research Information Office (RIO)

The Research Information Office (RIO) was established aiming to consolidate research information of NIFS. The NIFS-Repository opens the research activities to the public through the Internet. The NIFS Article Information System (NAIS) which has been developed by RIO accumulates research activity information related to the fusion science. The information disclosure of the latest study results is also an important function of RIO by publication of research reports such as an annual report, a NIFS report, etc.

2. NIFS-Repository

RIO is assigned as an operating organization for NIFS-Repository. RIO organized a working group to implement this task. The system for NIFS-Repository was set up and started its operation at the end of Mar. 2009.

In general, a university-based IR (Institutional Repository) is defined as; "A set of services that a university offers to the members of its community for the management and dissemination of digital materials created by the institution and its community members". In other words, for in the case of NIFS, the IR is required to meet the social accountability of the Institute that is carrying out a large-scale project of nuclear fusion research and development.

In 2010, the server for the NIFS-Repository was upgraded and the following enhancements of the system were performed for utilization.

1) NIFS-Repository was registered to the handle system operated by Corporation for National Research Initiatives (CNRI) and obtained the ID number. This system assigns an unique ID to each repository server and it is used to identify the item in the world wide repository group.

2) A function to download the csv-format data of the search results was installed.

3) A function to sort the search results was also installed.

Since FY2009 NIFS-Repository was partly supported by a grant from Cyber Science Infrastructure (CSI) Project for "Further expanding IRs and creating content" operated by National Institute of Informatics (NII). In FY2010 our efforts under this grant were mainly concentrated onto enrichment of its contents in NIFS-Repository. Namely, the retroactive input of the papers from Annual report and published papers was continued. As a result, by the end of FY2010, number of contents in NIFS-Repository increased to 4,749 items, including scientific articles published in various journals, NIFS-reports and Annual Report of NIFS, , and the download count of items was about 27,000 in 2010.

3. NIFS Article Information System (NAIS)

The NIFS Article Information System (NAIS) is the database that accumulates the information of research activities made by NIFS, collaborative colleges/ universities, research institutes, and industrial companies/organizations. RIO has developed the NAIS programs and maintains the database operation since 2006. The most advantageous points of this system are as follows: (1) In order to reduce researchers' burden, it integrates the internal processes for obtaining sanction for article submission and publication. (2) It can easily produce the lists of scholarly achievements for every researcher and also for the whole institute or collaborating organizations. Their statistical outputs are often reported to some external surveys for the institute activities. (3) All the first- and co-authors are automatically recognized by individual, and therefore, it enables us to make a query for each author. The total number of registered articles/presentations in NAIS is about 6600 in 2010.

NAIS gradually gets slower due to the increasing number of registered records. Simultaneously with the upgrade of the server hardware, the software and database structures will be soon refined to improve the system responses especially for fast query search and result download.

4. Publication of NIFS reports and Collection of Reports

Publication of the annual report and series of NIFS Research Report is also important task of RIO. NIFS series are the preprints for presenting promptly the results of a collaboration research work of NIFS.

NIFS Research Report
Present the results of research work for nuclear fusion, plasma physics and theory & simulation and experiments in related fields.

NIFS-PROC
Proceedings of international conferences or symposia

organized by NIFS and the reports of the meetings for the collaboration research work of NIFS.

NIFS-TECH

Present the results of technical research development related to nuclear fusion and plasma physics.

NIFS-DATA

Data series compiling the evaluated basic data for fusion science and related fields.

NIFS-MEMO

Technical data and reference for newly developed devices, databases, hardware and software of computer codes.

Table 1 Number of published NIFS reports

	FY 1989-2009	FY 2010	TOTAL
NIFS	959	56	1015
NIFS-DATA	108	4	112
NIFS-TECH	14	0	14
NIFS-PROC	82	4	86
NIFS-MEMO	58	1	59
Annual Report	21	1	22

The office also collects laboratory reports and other literatures concerning nuclear fusion and related fields from foreign institutions. The total number was approximately 36400. In order to save the space for storage and safekeeping, we keep them in the form of microfiche. Now they, especially reports of early days of fusion research, have been constantly utilized by researchers not only in NIFS but also outside NIFS.

(Mito, T.)