

§36. Activities on ITER Collaboration

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The ITER International Fusion Energy Organization (IO) has been officially established in October 2007. The IO is building up its organizational structure by recruiting professional staff and supporting staff. In Japan, Japan Atomic Energy Agency (JAEA) was designated as a Japanese Domestic Agency (JADA). Our ITER Research Coordinating Group promotes research activities coordinated with the ITER project, cooperating with the ITER Collaboration Committee. Our activities on ITER collaboration would play an important role in making active researches for ITER project in fusion community.

The International Tokamak Physics Activity (ITPA) provides a framework for internationally coordinated fusion research activities. The ITPA continues the tokamak physics R&D activities that have been conducted on an international level for many years resulting in achievement of a broad physics basis useful for all fusion programs, for the ITER design, and for general tokamak research worldwide.

The ITPA meetings, which are divided into seven groups (MHD stability, Transport and confinement, Pedestal Disruption and Control; Energetic particles; Pedestal; SOL and Divertor; Integrated Operation Scenarios and Diagnostics) are organized under the auspices of the ITPA Coordinating Committee.

In 2008, memberships of these topical groups have been renewed and 13 members are listed from NIFS. Each topical group holds an average of two meeting a year. We consider the ITPA meetings workshops on physics issues related to ITER and on comprehensive understanding of toroidal plasmas. We are strongly promoting NIFS scientists' participation and presentation in the ITPA meetings. The numbers of participants and presentations from NIFS in the 2008 fiscal year are summarized in Tables 1. The total participants amount to 17 persons and there were as many as 13 presentations. The travel expenses for five participants in the ITPA meetings held abroad were supported with the budget for ITER collaboration. NIFS scientists participated in the two ITER-related meetings shown in Table 2. The travel expense for one participant for NIFS 2008 meeting based on neutral beam injection systems was supported with the budget.

The 2nd ITER summer school for students and young scientists in RIAM, Kyushu University was done on 22-25 Jul. 2008. 14 students in Sokendai and Nagoya Universities, and 2 post-doctoral researchers registered in NIFS are supported the budget for attending. After this ITER summer school, a report meeting was planned and about 40 NIFS staff members and students attended this meeting. Master course students made a presentation with

a partner about outline of lectures and it was included there private remarks. Doctor course student and post-doctoral researchers presented two lectures related their specific researching topics.

In 2009 March, NIFS-JAEA joint meeting for ITER-BA project was held in NIFS. The main topics are 1) design and planning for JT-60SA, 2) IFMIF/EDEDA schedule, 3) supercomputer for BA project, 4) Superconducting magnetic coils 4) pellet workshop in Cadarache, 5) heating systems of NBI and 6) other related information of ITER DA in Japan. About 30 participants were attended and discussed about collaboration works of these projects from NIFS.

Dr. Seo, who was a member of this group, moved to ITER IO in Cadarache and he started new works for ITER superconducting coil systems. It was the first case of official ITER stuff from NIFS.

Topical Group	Date (Place)	Participants (Presentations)
Diagnostics	14-18 Apr (Lausanne)	3 (3)
Coordinating Committee	30 Jun - 1 Jul (Cadarache)	1
SOL and Divertor	15-18 Sep (Nagasaki)	5 (3)
Transport and Confinement	20-23 Oct (Milan)	2 (2)
Energetic Particles	20-22 Oct (Lausanne)	2 (2)
Integrated operation scenario	31 Mar. - 2 Apr. (Naka)	1
Transport and Confinement	31 Mar. - 3 Apr. (Naka)	3 (3)

Table 1. ITPA Meetings in 2008FY.

Meeting	Date (Place)	Participants (Presentations)
NIFS 2008	10-12 Sep. (Aix-en-Provence)	1 (1)
ITER fuelling workshop	1-3 Dec. (Cadarache)	1 (1)

Table 2. ITER-related Meetings in 2008FY.