

**Japan-US Workshop on  
Fusion Power Plants and Related Advanced Technologies with participation of China  
March 16-18, 2009 at the University of Tokyo in Kashiwa, JAPAN**

**Agenda**

**Monday, March 16, 2009**

9:30 – 9:45 Welcome and Opening remarks

**Session : Overview of Tokamak Fusion Reactor** ( Chair : A. Sagara)

9:45 – 10:15 K. Tobita : What we have learned from SlimCS design study

10:15 – 10:45 F. Najmabadi : Use of TRL's in Defining Research Gaps and Guiding R&D for Fusion Technology

10:45 – 11:15 Q. Huang : FDS Series Fusion Reactor Conceptual Designs and R&D Activities in China

11:15 – 11:45 S. Konishi : Non-nuclear Hybrid concept with fuel production

**Lunch**

**Session : Divertor and Material Issues** (Chair : S. Konishi)

13:00 – 13:30 R. Raffray: Summary of International High Heat Flux Component Workshop, San Diego, December 2008

13:30 – 14:00 N. Asakura : Power exhaust and divertor physics issues for DEMO

14:00 – 14:30 R. Hiwatari : Divertor plasma issues concerning commissioning operation for DEMO

**Coffee Break**

14:45 – 15:15 S. Zhu : Effect of higher-Z impurity seeding on divertor plasmas

15:15 – 15:45 R. Raffray: Recent ARIES Progress on Developing He-Cooled W-Alloy Divertor Concepts

15:45 – 16:15 L. El-Guebaly: State-Of-The-Art Scheme for Managing Fusion Activated Materials

**Coffee Break**

**Session : Helical Reactor Design(1)** ( Chair : F. Najmabadi)

16:30 – 17:00 A. Sagara : Overview of FFHR design activity

17:00 – 17:30 S. Imagawa : Magnet design of FFHR

19:00 – 21:00

**Welcome Dinner ( nearby JR Kashiwa station )**

## **Tuesday, March 17, 2009**

### **Session : Core Plasma Issues** (Chair : R. Raffray)

- 09:30 – 10:00 K. Kurita : Critical Beta Analyses of Low Aspect Ratio Tokamak
- 10:00 – 10:30 K. Okano : High beta and high bootstrap current equilibria with internal and external transport barriers
- 10:30 – 11:00 F. Najmabadi : New ARIES System Code Development and Validation
- 11:00 – 11:30 Y. Ogawa : Consideration on design window for a DEMO reactor
- 11:30 – 12:00 L. El-Guebaly: Toward the Ultimate Goal of Tritium Self-Sufficiency

### **Lunch**

- 13:00 – 14:45 **Tour to Plasma Experimental Devices in Kashiwa Campus**

### **Session : Helical Reactor Design(2)** ( Chair : K. Okano)

- 15:00 – 15:30 T. Goto : Development of System Design Code for Heliotron Reactors
- 15:30 – 16:00 O. Mitarai : Low temperature and high density ignited operation in FFHR
- 16:00 – 16:30 Y. Kozaki : Economic aspect of helical reactors

### **Coffee Break**

### **Session : Laser Fusion Reactor Design** (Chair : O. Mitarai)

- 16:45 – 17:15 T. Norimatsu : Critical issue in KOYO-F design
- 17:15 – 17:45 Y. Someya : Comparison of the water cooled blanket concepts based on  $\text{Li}_2\text{TiO}_3$  and LiPb breeder for FALCON-D

**[Dinner : On own initiative]**

## **Wednesday, March 18, 2007**

**Session : Blanket Issues** ( Chair : K. Tobita )

09:00 – 09:30 L. El-Guebaly: Scoping Assessment of Advanced Tokamak with DCLL Blanket: Design Challenges and Economic Implications

09:30 – 10:00 M. Ichinose : Design concept of near term DEMO reactor with high temperature blanket

10:00 – 10:30 Y. Yamamoto : Development of High temperature LiPb-SiC blanket

10:30 – 11:00 C. Liu : Research on thermo-hydraulic analysis of DEMO blanket

11:00 – 11:10 Closing Address

**Adjourn**