

2nd Japan-Korea workshop on ‘Theory and Simulation of Magnetic Fusion Plasmas’ combined with 6th Burning Plasma Simulation Initiative(BPSI) meeting

#W601, Research Institute for Applied Mechanics, Kyushu University, Kasuga, Fukuoka, Japan, 2007/8/6-8

Aug. 6 (Mon)

9:00-9:10 Welcome to Kyushu University (Director Imawaki)

9:10-9:15 Announcement (M. Yagi)

Project I (Korea) (Chairman Y. Kishimoto)

9:20-10:00 J. Y. Kim, Current status and plan of KSTAR project

10:00-10:20 Coffee Break

BPSI (Chairman Y. Kishimoto)

10:20-10:50 A. Fukuyama, Integrated modeling of toroidal plasmas and standard component interface

10:50-11:20 N. Nakajima, Simulation project in Dept. of simulation science of NIFS

Turbulence (Chairman M. Yagi)

11:20-11:50 N. Miyato, Generation of zonal flow and zonal magnetic field in tokamak plasmas

11:50-13:00 Lunch

13:00-13:30 Sergi Ferrando I Margalet, Zonal flows and ITG instabilities in multiple-helicity magnetic fields

13:30-14:00 Y. Idomura, First principles based conservative gyrokinetic toroidal full-f 5D Vlasov simulation

14:00-14:30 Y. Kishimoto, Global nature of zonal flows due to finite band width

14:30-15:00 S. Tokunaga multi-scale transport simulation with ion temperature gradient driven drift wave turbulence

15:00-15:20 Coffee Break

Transport Simulation I (Chairman A. Fukuyama)

15:20-15:50 Y.S. Na, Simulations of KSTAR steady-state operation scenarios

15:50-16:20 M. Honda, Present status of dynamic transport code, TASK/TX

Design (Chairman C. S. Chang)

16:20-16:50 T. Takizuka, Prediction for divertor performance of JT-60SA and DEMO reactor (SlimCS) with SONIC simulation

16:50-17:20 T. Ozeki, Report on first workshop on DEMO design in the broader approach activities

Project II (Japan) (Chairman C. S. Chang)

17:20-18:00 K. N. Sato, Present Status of the New Project "QUEST" for Long Term Sustained Spherical Tokamak Studies

18:10 Welcome Party (2F)

20:20 Adjourn

Aug. 7 (Tues)

Plasma Edge (Chairman A. Fukuyama)

9:00-9:30 C.S. Chang, Kinetic study of Resonance Magnetic Perturbation effect on edge pedestal

9:30-10:00 T. Takizuka, PARASOL simulation of the ELM heat flux in SOL-divertor plasmas

10:00-10:15 Coffee Break

RF (Chairman T. Takizuka)

10:15-10:45 A. Fukuyama, Integrated full wave analysis of RF heating and current drive in tokamak plasmas

10:45-11:15 H. G. Jhang, A feasibility study of the influence of the rf waves on resistive wall mode

11:15-11:45 G. Y. Park(C. S. Chang), A new 5&1/2 D technique for simulation of nonlinear RF-particle interaction

11:45-12:15 B. H. Park, ICRH heating and preionization modeling for KSTAR plasmas

12:15-13:20 Lunch

MHD (Chairman T. Ozeki)

13:20-13:50 S. Nishimura(M. Yagi) Poloidal flow generation by drift tearing mode

13:50-14:20 Y. Ishii, Plasma Rotatin Effects on the Driven Magnetic Island Evolution

14:20-14:50 S.M. Yi, MHD stability analysis of KSTAR target AT mode

14:50-15:20 H. Naitou, Development of a new gyro-PIC code for MHD simulation

Coffee Break 15:20-15:40

15:40-16:10 T. Tokuda, Progress in the numerical methods for linear ideal MHD stability analysis of a tokamak

Transport Simulation II (Chairman J. Y. Kim)

16:10-16:40 N. Hayashi, Simulation study of pressure profile effect on the ELM energy loss with TOPICS-IB

16:40-17:10 S. H. Ko, Coupled simulation of kinetic pedestal evolution and MHD ELM instability.

17:10-17:40 S. S. Kim, Transport simulation studies in KSTAR divertor plasmas

17:40 Adjourn

Aug.8 (Wes)

9:00-9:30 Discussion on future collaboration

9:30-9:45 Summary

9:45 Closing

9:45-10:00 Photo (Entrance of RIAM Research Bld.)

10:00-10:15 Coffee Break

10:20-11:20 Sight-seeing(Advanced Fusion Research Center)

11:20-11:50 Sight-seeing (LMD, H Bld.)

10:20-12:00 BPSI meeting (W601)