

Agenda of the 7th Japan-Korea Workshop on Theory and Simulation of Magnetic Fusion Plasmas

Myeonggang Hall, Nami Island, Chuncheon, Gangwon-do, Korea, 26-27 July 2012

26 July 2012 (Thursday)

9:00 – 9:15 Welcome and Logistics

- Welcome
 - Logistics and announcement
- Yong-Su Na

9:15 – 10:30 Overview and Integrated Modelling I

- Overview of IFERC project in Broader Approach activities
 - Status of fusion simulation research in NFRI
 - Kinetic integrated modeling of burning plasmas using the TASK code
- Chair: J. C. Seol
N. Nakajima
J. Y. Kim
A. Fukuyama

10:30 – 10:45 Coffee break

10:45 – 12:00 Overview and Integrated Modelling II

- Integrated modelling of ITER operation scenarios
 - **Governing equations on the flux coordinates for TASK/TX**
 - Pedestal stability analysis and modeling for KSTAR
- Chair: N. Nakajima
Yong-Su Na
M. Honda
H. S. Han

12:00 – 13:20 Lunch

13:20 – 15:00 Transport & MHD I

- Development of 2-Dimensional Nonlinear Fokker-Planck-Landau Collision Solver
 - Gyrofluid simulation of multi-scale resistive MHD and micro-turbulence
 - Formulation of gyrokinetic MHD model for tokamak simulation
 - Effect of Secondary Convective Cells on Turbulence and Flow Generation
- Chair: J. Y. Kim
E. S. Yun
J. Li
H. Naitou
Sumin Yi

15:00 – 15:20 Coffee break

15:20 – 17:00 Transport & MHD II

- An approach to two-dimensional transport modeling in tokamak plasmas
 - Transport in the plateau regime in a tokamak pedestal
 - Drift-kinetic simulation study of tokamak pedestal physics
 - On interpreting perturbative experiments on pedestal transport using supersonic molecular beam injection
- Chair: A. Fukuyama
H. Seto
J. C. Seol
G. Y. Park
T. R. Rhee

18:00 – Workshop dinner

27 July 2012 (Friday)

9:00 – 10:40 Energetic Particles & MHD

- Recent progress of hybrid simulation for energetic particles and MHD
- Simulation of runaway electron orbit loss in an ITER-like equilibrium
- Simulation study of disruption characteristics in KSTAR
- Simulation study of sawtooth using NIMROD

Chair: G. Y. Park
Y. Todo
A. Matsuyama
J. G. Lee
K. I. You

10:40 – 10:55 Coffee break

10:55 – 11:45 Heating & Current Drive

- Neoclassical Physics for Current Drive in Tokamak Plasmas
- Integrated simulation of ICRF minority heating in tokamak plasmas

Chair: H. Naitou
F.- X. Duthoit
S. Murakami

11:45 – 12:00 Summary

S. Murakami & Yong-Su Na

12:00 – 13:30 Lunch

14:00 – Nami Island Tour