# Draft Agenda of the 5th Japan-Korea Workshop on ‘Theory and Simulation of Magnetic Fusion Plasmas’

POSCO International Center, POSTECH, Pohang Korea, 29-30 July 2010

## 29 July 2010 (Thursday)

### 9:00 – 9:10 Welcome and Logistics
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  - C.M. Ryu

### 9:10 – 10:25 MHD & Energetic particle
- Chair: J.Y. Kim
  - MHD equilibrium with a chaotic magnetic field
    - N. Nakajima
  - A signature of the electron fishbone instability during ECRH/ECCD in KSTAR tokamak
    - C.M. Ryu
  - Simulation study of energetic-particle driven instabilities
    - Y. Todo

### 10:25 – 10:40 Coffee break

### 10:40 – 12:20 MHD & Energetic particle
- Chair: Y. Todo
  - Convergence studies of eigenvalues of resistive MHD modes using numerical matching technique
    - M. Furukawa
  - Edge stability analysis for hybrid operation scenario
    - H.S. Han
  - Recent activity of the JAEA theory group towards a better understanding of the effects of flows and energetic particles on the stability of MHD modes
    - N. Aiba
  - Thermal ion kinetic interactions with the low-frequency shear Alfven continuous spectrum
    - I. Chavdarovski

### 12:20 – 13:30 Lunch

### 13:30 – 14:45 Turbulence & Transport
- Chair: C.M. Ryu
  - Profile relaxation and entropy dynamics in turbulent transport
    - Y. Kishimoto
  - Predator-Prey dynamics of ITG turbulence and its implication on intrinsic rotation generation
    - S.M. Yi
  - An edge turbulence model with multi-frequency shearing effects
    - K. Miki

### 14:45– 15:00 Coffee break

### 15:00 – 16:15 Turbulence & Transport
- Chair: N. Nakajima
  - Study of intrinsic rotation using full-f ITG turbulence simulation
    - S.H. Ku
  - Gyrokinetic PIC simulation for kinetic MHD phenomena in tokamaks
    - H. Naito
  - gKPSP gyrokinetic simulation code: development status and future plan
    - J.M. Kwon
16:15 – 16:30  Coffee break

16:30 – 17:45  Turbulence & Transport  
  Chair: Y. Kishimoto
  • Gyrofluid simulation of internal transport dynamics  
    S. S. Kim
  • Contrastive gyro-fluid simulation study of ITB formation  
    S. Tokunaga
  • Transport modeling in helical plasmas  
    A. Wakase

18:00 – 18:30  Workshop dinner

30 July 2010 (Friday)

9:00 – 10:15  Integrated Modeling  
  Chair: Y.S. Na
  • Kinetic integrated modeling of tokamak plasmas  
    A. Fukuyama
  • Recent progress of TASK/TX code  
    M. Honda
  • Transport and MHD simulations of intrinsic and
    pellet-induced ELMs  
    K.M. Kim

10:15 – 10:30  Coffee break

10:30 – 11:45  Heating & CD  
  Chair: A. Fukuyama
  • Modeling of non-inductive current drive during ECH pre-ionization  
    B.H. Park
  • Kinetic modeling of ITER heating scenario  
    H. Nuga
  • A theoretical model of ECRH for the plasma start-up in a tokamak  
    J.C. Seol

11:45 – 12:00  Summary  
  C.M. Ryu

12:00 – 12:30  Adjourn