

**2nd East-Asian School and Workshop
on Laboratory, Space, Astrophysical Plasmas**

25th – 29st June 2012, Jeju KAL Hotel, Jeju Island, Korea

25th, June (Monday, Turbulence)

08:15 – 08:30 (P.H. Diamond, Jae-Min Kwon) *Welcome and Announcements*

Morning Lecture (chair: Jae-Min Kwon)

08:30 – 10:00 (K. Itoh) *Essential processes in drift wave turbulence - theory and experiment*

10:00 – 10:30 *Break*

10:30 – 12:00 (T.S. Hahm) *Introduction to tokamak core turbulence*

12:00 – 13:30 *Lunch*

Afternoon Session1 (chair: C.M. Ryu)

13:30 – 14:00 (Dong-Hun Lee) *Space plasma waves including MHD, EMIC waves and some of electron wave properties and their roles in space*

14:00 – 14:30 (Chijie Xiao) *In situ measurements of Alfvénic turbulences in interplanetary coronal mass ejections*

14:30 – 15:00 (K. Zhao) *Studies on turbulence in the edge plasma of the HL-2A tokamak*

15:00 – 15:10 *Break*

Afternoon Session2 (chair: Lu Wang)

15:10 – 15:40 (B. Dudson) *Overview of the BOUT++ code and recent results*

15:40 – 16:05 (Jian-Zhou Zhu) *Electrostatic gyrokinetic absolute equilibria: calculation, simulation and physics relevant to fusion plasmas turbulence*

16:05 – 16:30 (Gahyung Cho) *MHD turbulence in high Kubo number regime*

16:30 – 16:55 (Santaru Banerjee) *Edge turbulence study with fast visible imaging in QUEST*

16:55 – 17:05 *Break*

17:05 – 17:35 **Discussion (K. Ida)**

26th, June (Tuesday, Reconnection)

Morning Lecture (chair: X.G. Wang)

08:30 – 10:00 (Hantao Ji) *Magnetic reconnection: An introduction*

10:00 – 10:30 *Break*

10:30 – 12:00 (P.H. Diamond) *From reconnection to relaxation: A continuing tale of two Taylors*

12:00 – 13:30 *Lunch*

Afternoon Session1 (chair: C. Xiao)

13:30 – 14:00 (X.G. Wang) *Shear flow effect on fast magnetic reconnection*

14:00 – 14:30 (Haihong Che) *Anomalous transport and fast magnetic reconnection*

14:30 – 15:10 (William Daughton) *Emerging Connections between Turbulence and Magnetic Reconnection*

15:10 – 15:20 *Break*

Afternoon Session2 (chair: M. Lesur)

15:20 – 15:50 (Siming Liu) *Magnetic reconnection and particle acceleration in solar flares*

15:50 – 16:20 (Zhibin Guo) *Magnetic reconnection in Alfvén wave turbulence system*

16:20 – 16:45 (Kyung Jin Kim) *Real-time control of neoclassical tearing mode in time-dependent simulation on tokamak plasmas*

16:45 – 17:10 (Qilong Ren) *Progress on an integrated modeling tool to support DIII-D and EAST experiments*

16:45 – 16:55 *Break*

16:55 – 17:25 **Discussion (Haihong Che)**

27th, June (Wednesday, Wave-Particle Interaction)

Morning Lecture (chair: D.H. Lee)

08:30 – 10:00 (Huirong Yan) *Cosmic ray transport and acceleration in turbulence*

10:00 – 10:30 *Break*

10:30 – 12:00 (R. Sagdeev) *Particles acceleration mechanisms in plasma shock waves*

12:00 – 13:30 *Lunch*

Afternoon Session1 (chair: William Daughton)

13:30 – 14:00 (Y. Ono) *Magnetic reconnection in TS-4, UTST and MAST merging tokamak experiments*

14:00 – 14:30 (En-Sang Lee) *Formation of electron flat-top distributions by ion beam driven instabilities*

14:30 – 15:00 (M. Malkov) *Cosmic ray collective confinement in supernova remnants*

15:00 – 15:10 *Break*

Afternoon Session2 (chair: Y. Ono)

15:10 – 15:40 (M. Lesur) *Nonlinear wave-particle interaction and phase-space structures*

15:40 – 16:10 (C.M. Ryu) *Electron acceleration by Langmuir turbulence*

16:10 – 16:35 (Helen Kaang) *The nonlinear wave-wave interactions of Alfvén-ion-cyclotron waves induced by the electromagnetic ion-cyclotron instability*

16:35 – 16:45 *Break*

16:45 – 17:15 **Discussion (M. Malkov)**

28th, June (Thursday, Dynamo)

Morning Lecture (chair: P.H. Diamond)

08:30 – 10:00 (D. Hughes) *TBD*

10:00 – 10:30 *Break*

10:30 – 12:00 (Hui Li) *Formation of magnetically dominated jets/lobes as part of the accretion disk dynamo*

12:00 – 13:30 *Lunch*

Afternoon Session1 (chair: K. Zhao)

13:30 – 14:00 (Pallavi Bhat) *Observational signatures of fluctuation dynamos in astrophysical systems*

14:00 – 14:30 (Luke Chamandy) *Galactic spiral patterns and dynamo action*

14:30 – 15:00 (Lu Wang) *TBD*

15:00 – 15:10 *Break*

Afternoon Session2 (chair: Jae-Min Kwon)

15:10 – 15:35 (Sehoon Ko) *Numerical study of bootstrap current in tokamak edge pedestal plasma*

15:35 – 16:00 (Jong-Sun Park) *Nightside Geosynchronous Magnetic Field Responses to Interplanetary Shock*

16:00 – 16:25 (Hyuck-Jin Kwon) *Dipolarization associated with current disruption as a source of space Pi1B*

16:25 – 16:35 *Break*

16:35 – 17:05 **Discussion** (Hui Li)

29th, June (Friday, Momentum)

Morning Lecture (chair: M. Kikuchi)

08:30 – 10:00 (K. Ida) *Momentum transport in toroidal plasmas*

10:00 – 10:30 *Break*

10:30 – 12:00 (O. Gurcan) *TBD*

12:00 – 13:30 *Lunch*

Afternoon Session1 (chair: O. Gurcan)

13:30 – 14:00 (M. Kikuchi) *TBD*

14:00 – 14:30 (Yuejiang Shi) *TBD*

14:30 – 15:00 (Jae-Min Kwon) *Spontaneous flow reversal in tokamak plasmas*

15:00 – 15:10 *Break*

Afternoon Session2 (chair: Yuejiang Shi)

15:10 – 15:40 (Hogun Jhang) *Role of external torque in the ion temperature profile de-stiffening and internal transport barrier formation*

15:40 – 16:05 (Haihong Che) *Electron holes and mechanism of momentum transport*

16:05 – 16:30 (Xiao Xiaotao) *Ion orbit loss effect on edge radial electric field in limiter geometry*

16:30 – 16:55 (Fu Jia) *Studies of argon transport in plasmas with lower hybrid wave heating on EAST*

16:55 – 17:05 *Break*

17:05 – 17:35 **Discussion** (Hogun Jhang)

17:35 – 17:50 *Announcement of 2013 meeting and Closing*