



**12th International Workshop on "H-mode Physics
and Transport Barriers"**

September 30- October 2, 2009

****All oral presentations will be held in the MGB Auditorium and Poster Sessions will be held in the lobby ****

Posters should be posted before the session and taken down immediately after the session

Wednesday, September 30, 2009:

7:30 am Shuttle pick up starting at Wyndham

8:30 Registration

9:00 Welcome

9:15 Physics of Transition to/from Enhanced Confinement Regimes (McKee)

10:45 Coffee Break

11:15 Posters on Physics of Transition to/from Enhanced Confinement Regimes-

See attached for poster session listing

12:45 pm Lunch

2:00 Plasma Rotation and Momentum Transport, and Their Relations to Transport Barriers (Sakamoto)

3:30 Coffee Break

4:00 Posters on Plasma Rotation and Momentum Transport, and Their Relations to Transport Barriers-

See attached for poster session listing

5:30 End of Day

6:00 Shuttle back to Wyndham

Thursday, October 1, 2009:

8:30 am Shuttle pick up at Wyndham

9:00 Announcement if necessary

9:15 Transport Barriers: Theory and Simulation (Yagi)

10:45 Coffee Break

11:15 Posters on Transport Barriers: Theory and Simulation- *See attached for poster session listing*

12:45 pm Lunch

2:00 Role of 3D Physics in Transport Barriers (Hidalgo)

3:30 Coffee Break

4:00 Posters on Role of 3D Physics in Transport Barriers- *See attached for poster session listing*

5:30 End of Day

6:00 Shuttle back to Wyndham

7:00 Conference Dinner at Hotel Wyndham- If you have dietary restrictions please see registration desk

Friday, October 2, 2009:

8:15 am Shuttle pick up at Wyndham

8:45 Pedestal and ELM Dynamics (Maggi)

10:15 Coffee Break

10:30 Posters on Pedestal and ELM Dynamics- *See attached for post session listing*

12:00 pm Lunch

1:15 High Priority ITER Issues on Transport Barriers (Loarte)

2:45 Coffee Break

3:00 Posters on High Priority ITER Issues on Transport Barriers- *See attached for post session listing*

4:30 Farewell, Closing

5:30 Shuttle back to Wyndham

Wednesday, September 30, 2009

Morning: Physics of Transition to/from Enhanced Confinement Regimes

Name	Session	Institution	Title
McKee G.R.	OV1	U. Wisconsin	Turbulence Suppression and Shear Flow Dynamics During Transitions to Enhanced Confinement Regimes
Carter T.A.	P1-8	UCLA	Bias-driven confinement transitions in the Large Plasma Device
Firpo M.-C.	P1-13	LPP-CNRS	Benefits of and extended low shear region for the confinement of tokamak plasmas
Gohil P.	P1-7	GA	The H-mode Power Threshold in Hydrogen, Deuterium and Helium Plasmas in DIII-D
Huang Y.	P1-12	SWIP	First Results of ELMy H-mode Experiments on HL-2A Tokamak
Hubbard A.E.	P1-6	MIT	Improved L-Mode plasmas with decoupled energy and particle edge barriers in Alcator C-Mod
Kamiya K.	P1-10	JAEA	Edge radial electric field structure on JT-60U and its connection to H-mode characteristics
Kubota S.	P1-4	UCLA	Microwave Reflectometry Measurements of Core-Edge Turbulence Near the L-H Transition in NSTX
Lebedev S.V.	P1-11*	Ioffe Inst.	Observation of the edge radial electric field and plasma rotation evolution in the counter-NBI assisted LH transition in low density plasmas in the TUMAN-3M
Lee K.C.	P1-5	UC Davis	New analysis of H-mode transition by Reynolds number based on the gyrocenter shift and comparison with NSTX results
Maingi R.	P1-1*	ORNL	Overview of L-H Power threshold studies in NSTX
Onjun T.	P1-15	Thammasat U.	Effects of Pellet Injection on Plasma Properties in ITER Standard H-mode Scenario
Sakamoto Y.	P1-9	JAEA	Transport Properties of Internal Transport Barriers in JET/JT-60U Identity Experiments
Wang Z.H.	P1-14*	UCSD	A Simple Dynamical Model of Flux-Driven Turbulence and Profile Evolution
Yuh H.Y.	P1-3	Nova Photonics Inc	NSTX reversed-shear internal transport barriers
Zweben S.J.	P1-2	PPPL	GPI Measurements of Edge and SOL Turbulence Across the L-H transition in NSTX

* Short oral presentation

Wednesday, September 30, 2009

Afternoon: Plasma Rotation and Momentum Transport, and Their Relations to Transport Barriers

Name	Session	Institution	Title
Sakamoto Y.	OV3	JAEA	Plasma Rotation and Momentum Transport, and Their Relations to Transport Barriers
Askinazi L.G.	P3-11	Ioffe Inst.	Mach probe measurement of peripheral plasma rotation evolution during LH transition and ITB decay in the TUMAN-3M tokamak
Diamond P.H.	P3-1	UCSD	Radial Current, Residual Stress and Intrinsic Rotation
Fiore C.L.	P3-7	MIT	Rotation and Transport in Alcator CMod ITB Plasmas
McDevitt C.J.	P3-2	UCSD	Toroidal and poloidal flow evolution
Neffaa S.	P3-8*	U. Provence	Angular momentum in wall-bounded MHD turbulence
Rice J.E.	P3-6	MIT	Recent Progress in Rotation and Momentum Transport by the ITPA Transport and Confinement Group
Rice J.E.	P3-5*	MIT	ITB Formation in Alcator C-Mod ICRF Mode Conversion Flow
Takenaga H.	P3-10	JAEA	Transport dependence of high performance operation on ExB shear and momentum
Tala T.	P3-9	JET-EFDA	NBI Modulation Experiments to Study Momentum Transport on JET
Wang W.X.	P3-3*	PPPL	Effect of Trapped Electrons on Nonlinear Residual Stress Generation and Toroidal Momentum Transport
Yoon E.S.	P3-4	PPPL	Transport of Parallel Momentum by Drift Resonance of Toroidal Ion Temperature Gradient Instability near Marginality

* Short oral presentation

Thursday, October 1, 2009

Morning: Transport Barriers: Theory and Simulation

Name	Session	Institution	Title
Yagi M.	OV5	Kyushu U.	Transport barriers: theory and simulation
Aiba N.	P5-15	JAEA	Destabilization mechanism of edge-localized MHD mode by a toroidal rotation in tokamaks
Dif-Pradalier G.	P5-3*	UCSD	Rotation dynamics with & without Internal Transport Barriers
Dong J.Q.	P5-14	SWIP	Generic Suppression Mechanism of Micro-turbulence by Vertical Flows
Guzdar P.N.	P5-8	U. Maryland	Nonlocal theory of excitation of GAMs by drift waves in tokamak edge plasmas
Hakim A.	P5-13	Tech-X	Extension of theory based models for anomalous transport to near separatrix region using the FACETS code
Honda M.	P5-12*	JAEA	Transport simulation on transport barriers associated with radial electric field and rotations
Ku S.	P5-1	NYU	“Tail-wagging-dog” dynamics of ITG-turbulent H-mode-Profile plasma in a full-f gyrokinetic simulation
Kwon J.M	P5-4	NFRI	Gyrokinetic simulation of equilibrium shear flow and its effects on ITG turbulence in a tokamak geometry
Miki K.	P5-7	UCSD	GAM shearing feedback loop in transport bifurcation and turbulence
Neko L.T.	P5-6	UCSD	A simple non-perturbative model of turbulence spreading in the presence of dissipation and zonal flows
Nguyen van yen R.	P5-17	CNRS	Wavelet-based density estimation for noise reduction in plasma simulations using particles
Onjun T.	P5-16	Thammasat U.	Simulations of H-mode plasma with ITB using self-consistency calculation of ExB flow shear
Rognlien T.D.	P5-10	LLNL	Self-consistent turbulence-based transport simulations in the tokamak edge region
Staebler G.M.	P5-9	GA	Extending TGLF transport modeling towards the edge
Told D.	P5-11	IPP-Garching	GENE simulations for an ASDEX upgrade edge transport barrier
Xu X.Q.	P5-2	LLNL	TEMPEST kinetic full-f simulations of the steady-state pedestal profiles in a single-null tokamak geometry
Zakharov L.E.	P5-5	PPPL	Where is the edge in toroidal plasmas

* Short oral presentation

Thursday, October 1, 2009

Afternoon: Role of 3D Physics in Transport Barriers

Name	Session	Institution	Title
Hidalgo C.	OV-4	CIEMAT	Role of 3D physics in transport barriers
Canik J.M	P4-9	ORNL	ELM triggering with 3D magnetic fields in NSTX
Chang C.S	P4-7*	NYU	Kinetic simulation of edge pedestal transport and structure in 3D RMP field in realistic diverted geometry
Ida K.	P4-1*	NIFS	Spontaneous Toroidal Rotation Driven by the Off-diagonal Term of Momentum and Heat Transport in the Plasma with Ion Internal Transport Barrier in LHD
Inagaki S.	P4-6	Kyushu U	Internal transport barrier formation induced by edge perturbation on LHD
Kitajima S.	P4-5	NIFS	Experimental study of flow bifurcation by an electrode biasing in TU-Heliac, CHS and Heliotron J
Moyer R.A.	P4-10*	UCSD	Investigation of the role of the radial electric field in H-modes with edge localized mode suppression by magnetic perturbations
Nagaoka K.	P4-3	NIFS	Improvement of ion heat transport in the Large Helical Device
Puiatti M.E.	P4-11	ENEA	Electron thermal transport barriers in RFX-mod
Suzuki C.	P4-2	NIFS	Shafranov shift measurements by a soft X-ran CCD camera for internal diffusion barrier discharges in the Large Helical Device
Takeuchi M.	P4-4	NIFS	Excitation of electrostatic fluctuations with long-distance correlation in L-H transition plasmas on the Compact Helical System
Waelbroeck F.L.	P4-8	U. Texas	Effect of resonant magnetic perturbations on particle transport

* Short oral presentation

Friday, October 2, 2009

Morning: Pedestal and ELM Physics

Name	Session	Institution	Title
Maggi C.F.	OV2	IPP-Garching	Progress in understanding the physics of the H-mode pedestal and ELM dynamics
Bateman G.	P2-10	Lehigh U.	Effect of anomalous transport on simulations of H-mode pedestal growth
Bongard. M.W.	P2-13	U. Wisconsin	Edge Stability Studies at high $\langle j_{edge}/B \rangle$ in the PEGASUS Toroidal Experiment
Burrell K.H.	P2-1*	GA	Creation of Quiescent H-Mode Discharges in DIII-D with Edge Rotation Ranging from Strong Counter to Strong Co-Rotation
Callen J.D.	P2-14	U. Wisconsin	Analysis of Pedestal Transport
Groebner R.J.	P2-2	GA	Limits to H-mode Pedestal Pressure Gradient in DIII-D
Hughes J.W.	P2-8*	MIT	H-mode pedestal regulation experiments on Alcator C-Mod
Lönroth J.	P2-7	Helsinki U.	Dependence of plasma performance and ELM behavior on the transport characteristics of the H-mode pedestal
Meyer H.	P2-11	UKAEA	Pedestal studies in co- and counter-current NBI discharges on MAST
Naulin V.	P2-6	JET-EFDA	Characterization of type I ELM filaments on JET and ASDEX Upgrade using magnetic signals
Osborne T.H.	P2-3	GA	Scaling of the H-mode Pedestal Characteristics with Gyro-radius in the DIII-D and JET Tokamaks
Owen L.W.	P2-5	ORNL	Comparing 1.5D ONETWO and 2D SOLPS Analyses of Inter-ELM H-mode Plasma in DIII-D
Oyama N.	P2-9*	JAEA	Effects of edge collisionality on ELM characteristics in grassy ELM regime
Pankin A.Y.	P2-16	Lehigh U.	Kinetic neoclassical scaling of the H-mode pedestal including ELM stability
Park G.	P2-15	NYU	Inter-machine study of the baseline neoclassical scaling law on H-mode pedestal width from XGC0 kinetic simulation
Wolfrum E.	P2-12	IPP-Garching	Temporal evolution of electron density and temperature profiles in between type-I ELMs at ASDEX Upgrade
Yan Z.	P2-4	U. Wisconsin	Pedestal Density Fluctuation Properties in H-mode Plasmas

* Short oral presentation

Friday, October 2, 2009

Afternoon: High Priority ITER Issues on Transport Barriers

Name	Session	Institution	Title
Loarte A.	OV6	ITER	High priority R&D issues on Transport Barriers and their control in ITER
Gerhardt S.P.	P6-5	PPPL	First results for ELM pacing via vertical position jogs in NSTX
Giroud C.	P6-3	UKAEA	Impurity transport characterization in JET operational scenarios
Hudson B.	P6-13	Oak Ridge U	H-mode pedestal structure and transport in hybrid plasmas during magnetic perturbation in the DIII-D tokamak
McDonald D.C.	P6-1	JET-EFDA	Confinement and ETB studies of JET hybrid discharges
Nunes I.	P6-2	JET-EFDA	Pedestal parameters at high plasma current at JET
Onjun T.	P6-11	Thammasat U.	Impurity transport and Helium accumulation in ITER
Park J. K.	P6-12*	PPPL	Calculations of Non-ambipolar Transport in Tokamaks and ITER
Sartori R.	P6-4*	Joint Undertaking	L-H and H=1 access experiments in JET and implications for ITER
Snyder P.B.	P6-6*	GA	Progress in the development and validation of the EPED1 model of the pedestal height and width
Valovič M.	P6-7	UKAEA	Collisionality scan of confinement in MAST H-mode plasmas
Wang Lu	P6-10	PPPL	Fine-scale zonal flow generation from trapped electron mode turbulence
Xiao Y.	P6-9	UC Irvine	Non-diffusive transport in collisionless trapped electron mode turbulence
Zhang W.L.	P6-8	UCI	Scaling of energetic particle transport by microturbulence

* Short oral presentation