

# **26th IAEA Fusion Energy Conference - IAEA CN-234**

**Monday 17 October 2016 - Saturday 22 October 2016**

**Kyoto International Conference Center  
Programme**

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# Monday 17 October 2016

## **Opening: O/1 - (08:30-10:15)**

- Chairs: Prof. Yamada, Hiroshi

## **Overview 1: : Magnetic Fusion: OV/1 - (10:45-12:30)**

- Chairs: Mr. Kurihara, Kenichi

time	title	presenter
10:45	Extension of Operational Regime of LHD towards Deuterium Experiment	TAKEIRI, Yasuhiko
11:10	Progress in ITER Construction, Manufacturing and R&D	BIGOT, Bernard
11:35	DIII-D Research Advancing the Scientific Basis for Burning Plasmas and Fusion Energy	SOLOMON, Wayne M.
12:00	Overview of the JET results in support to ITER	LITAUDON, xavier

## **Overview 2: Magnetic Fusion: OV/2 - (14:00-16:10)**

- Chairs: Kaw, Predhiman

time	title	presenter
14:00	Overview of ASDEX Upgrade results	KALLENBACH, Arne
14:25	Overview of EAST Experiments on the Development of High-performance Steady-State Scenario	WAN, Baonian
14:50	Kinetics of Relativistic Runaway Electrons	BREIZMAN, Boris
15:15	Overview of the KSTAR Research in Support of ITER and DEMO	OH, Yeong-Kook
15:40	Overview of High-Field Divertor Tokamak Results from Alcator C-Mod*	MARMAR, Earl

## **Overview Poster: OV/P - (14:00-18:45)**

title	presenter	board
Overview of DEMO Safety R&D and the Potential Future Role of IEA ESEFP IA	WU, Yican	
Overview of simulation results using computation resources in the framework of IFERC-CSC	BORBA, Duarte	
Edge and divertor plasma: detachment, stability, and plasma-wall interactions	KRASHENINNIKOV, Sergei	
Progress of the Recent Experimental Research on the J-TEXT Tokamak	ZHUANG, Ge	
Hysteresis and Fast Timescale in Transport Relation of Toroidal Plasmas	ITOH, Kimitaka	
Overview of the FTU results	PUCCELLA, Gianluca	
Overview of Recent COMPASS Activities	DEJARNAC, Renaud	
Overview of progress in European Medium Sized Tokamaks towards an integrated plasma-edge/wall solution	MEYER, Hendrik	
Overview of the TCV Tokamak Program: Scientific Progress and Facility Upgrades	CODA, Stefano	
Overview of the RFX-mod fusion science activity	ZUIN, Matteo	
Overview of MST Reversed Field Pinch Research in Advancing Fusion Science	SARFF, John	
Implementation within the European Domestic Agency of the French nuclear safety Order of 2012, concerning Basic Nuclear Installation, applicable to ITER Project.	WOUTERS, Paul	

title	presenter	board
Overview of SST-1 Up-gradation & Recent Experiments in SST-1	PRADHAN, Subrata	
Progress in ITER Construction, Manufacturing and R&D	BIGOT, Bernard	
DIID-D Research Advancing the Scientific Basis for Burning Plasmas and Fusion Energy	SOLOMON, Wayne M.	
Extension of Operational Regime of LHD towards Deuterium Experiment	TAKEIRI, Yasuhiko	
Overview of High-Field Divertor Tokamak Results from Alcator C-Mod	MARMAR, Earl	
Overview of the KSTAR Research in Support of ITER and DEMO	OH, Yeong-Kook	
Overview of ASDEX Upgrade results	KALLENBACH, Arne	
Overview of the JET results in support to ITER	LITAUDON, xavier	
Kinetics of Relativistic Runaway Electrons	BREIZMAN, Boris	
Overview of EAST Experiments on the Development of High-performance Steady-State Scenario	WAN, Baonian	
Overview of Recent Experimental Results from Aditya Tokamak	TANNA, Rakesh	
Overview of Spherical Tokamak Research in Japan	TAKASE, Yuichi	
H-mode and Non-Solenoidal Startup in the Pegasus Ultralow-A Tokamak	FONCK, Raymond	
Overview of recent physics results from MAST	KIRK, Andrew	
Overview of First Results from NSTX-U and Analysis Highlights from NSTX	MENARD, Jonathan	
3-D effects on transport and plasma control in the TJ-II stellarator	CASTEJÓN, Francisco	
Review of Recent Experiments on the T-10 Tokamak with All Metal Wall	SARYCHEV, Dmitrii	
Overview of Recent Experiments on HL-2A Tokamak	DUAN, Xuru	
A Pathway to Laser Fusion Energy: Fast Ignition Realization EXperiment (FIREX)	AZECHI, Hiroshi	
First plasma operation of Wendelstein 7-X	WOLF, Robert	
Recent Progress of JT-60SA Project	SHIRAI, Hiroshi	
The Quest For Laboratory Inertial Fusion Ignition in the US	EDWARDS, Michael John	
Overview of the IFMIF/EVEDA Project	KNASTER, juan	
Overview of the Present Progresses and Activities on the Chinese Fusion Engineering Test Reactor	WAN, Yuanxi	

### **ITER Technology: FIP/1 - (16:40-18:45)**

- Chairs: Mr. Pamela, Jerome

time	title	presenter
16:40	Recent Progress of ITER Package in ASIPP	FU, Peng
17:00	ITER Central Solenoid Module Fabrication	SMITH, John
17:20	Long-pulse acceleration of 1MeV negative ion beams toward ITER and JT-60SA neutral beam injectors & Towards powerful negative ion beams at the test facility ELISE for the ITER and DEMO NBI system	HIRATSUKA, JUNICHI
17:40	Progress of Experimental Study on Negative Hydrogen Ion Production and Extraction	KISAKI, Masashi
18:00	Progress in High Power Test of R&D Source for ITER ICRF system	MUKHERJEE, Aparajita

18:20	New Results of Development of Gyrotrons for Plasma Fusion Installations & Development of Multi-Frequency Mega-Watt Gyrotrons for Fusion Devices in JAEA & Development of Over MW Gyrotrons for Fusion at Frequencies from 14 GHz to Sub-terahertz	DENISOV, Grigory
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## Tuesday 18 October 2016

### Overview 3: Magnetic Fusion: OV/3 - (08:30-10:15)

- Chairs: Dr. Kim, Kwang-Wook

time	title	presenter
08:30	First plasma operation of Wendelstein 7-X	WOLF, Robert
08:55	The Quest For Laboratory Inertial Fusion Ignition in the US	EDWARDS, Michael John
09:20	Recent Progress of JT-60SA Project	SHIRAI, Hiroshi
09:45	Overview of the Present Progresses and Activities on the Chinese Fusion Engineering Test Reactor	WAN, Yuanxi

### Poster 1: P1 - (08:30-12:30)

title	presenter	board
Active control/stabilization of locked mode in tokamaks at high magnetic Reynolds number	INOUE, Shizuo	
An analytic scaling relation for the maximum tokamak elongation against n=0 MHD resistive wall modes	LEE, Jungpyo	
Self-consistent optimization of neoclassical toroidal torque with anisotropic perturbed equilibrium in tokamaks	PARK, Jong-Kyu	
Plasma Disruption and VDE modeling in support of ITER	BANDYOPADHYAY, Indranil	
Toroidal gyrokinetic studies of the tearing mode in tokamak plasmas	POLI, Emanuele	
Excitation of frequency jump by barely Passing Electrons	FENG, Hao	
Simulation study of interaction between runaway electron generation and resistive MHD modes over avalanche timescale	MATSUYAMA, Akinobu	
Development of Multi-Frequency Mega-Watt Gyrotrons for Fusion Devices in JAEA	IKEDA, Ryosuke	
Three-dimensional numerical analysis of interaction between plasma rotation and interchange modes	ICHIGUCHI, Katsuji	
Development of Over MW Gyrotrons for Fusion at Frequencies from 14 GHz to Sub-terahertz	KARIYA, Tsuyoshi	
Physics of flux closure during plasmoid-mediated reconnection in Coaxial Helicity Injection	EBRAHIMI, Fatima	
Impact of Kinetic Effects of Energetic Particles on Resistive Wall Mode Stability in Rotating High-beta Plasmas	SHIRAISHI, Junya	
Towards powerful negative ion beams at the test facility ELISE for the ITER and DEMO NBI system	FANTZ, Ursel	
New Results of Development of Gyrotrons for Plasma Fusion Installations	DENISOV, Grigory	
Nonlinear extended-MHD modeling by the NIMROD code of broadband-MHD turbulence during DIII-D QH-mode discharges	KING, Jacob	
Current profile shape effects on the formation and termination of runaway beams in tokamak disruptions and implications for ITER	MARTIN-SOLIS, Jose Ramon	
Numerical calculations of plasma response to external magnetic perturbations	KIM, Juhung	
Pressure Driven Currents Near Magnetic Islands in 3D MHD Equilibria: Effects of Pressure Variation Within Flux Surfaces and of Symmetry	REIMAN, Allan	

title	presenter	board
Advances in Numerical Modelling of MGI Mitigated Disruptions in ITER	LUKASH, Victor	
Modeling and Simulation of Pedestal Control Techniques for NSTX-U	FIL, Alexandre	
Phase Locking, Phase Slips and Turbulence: A New Approach to Mechanisms for Quiescent H-Mode	GUO, ZHIBIN	
Plasma Effects in Full-Field MHD-Equilibrium Calculations for W7-X	GEIGER, Joachim	
MHD stability of ITER H-mode confinement with pedestal bootstrap current and diamagnetic effects taken into account	ZHENG, Linjin	
Securing high beta <sub>N</sub> JT-60SA operational space by MHD stability and active control modelling	BOLZONELLA, Tommaso	
Collisional generation of runaway electron seed distributions leading to sub-criticality, avalanche, or fast transfer	BRENNAN, Dylan	
Role of explosive instabilities in high-beta disruptions in tokamaks	AYDEMIR, Ahmet	
Drift-Alfven Instabilities and Turbulence of Magnetic Field Aligned Shear Flows	MYKHAYLENKO, Volodymyr	
Simulations of Runaway Electron Generation including Hot-Tail Effect	NUGA, Hideo	
Two-fluid sub-grid-scale viscosity in nonlinear simulation of ballooning modes in a heliotron device	MIURA, Hideaki	
Long-pulse acceleration of 1MeV negative ion beams toward ITER and JT-60SA neutral beam injectors	HIRATSUKA, JUNICHI	
Extension of numerical matching method to weakly nonlinear regime -- beyond the Rutherford theory of magnetic island evolution	FURUKAWA, Masaru	
Nonlinear simulation of ELM dynamics in the presence of RMPs and pellet injection	CHANDRA, Debasis	
First Principle Fluid Modelling of Neoclassical Tearing Modes and of their Control	MAGET, PATRICK	
Nonlinear 3D M3D-C1 Simulations of Tokamak Plasmas Crossing a MHD Linear Stability Boundary	JARDIN, Stephen	
Pfirsch-Tasso versus standard approaches in the plasma stability theory	PUSTOVITOV, Vladimir	
Non-linear MHD modelling of Edge Localized Modes dynamics.	BECOULET, Marina	
Non-linear MHD Simulations of Pellet Triggered ELMs	FUTATANI, Shimpei	
Non-linear modeling of the Edge Localized Mode control by Resonant Magnetic Perturbations in ASDEX Upgrade	ORAIN, Francois	
Equilibrium solutions of MHD equations for GAMs in the edge tokamak plasma	SHURYGIN, Remir	
Nonlinear MHD simulations of Quiescent H-mode pedestal in DIII-D and implications for ITER	LIU, FENG	
Nyquist analysis of kinetic effects on the plasma response in NSTX and DIII-D experiments	WANG, Zhirui	
Magneto-thermal Reconnection Processes, Related Angular Momentum Transport issues and Formation of High Energy Particle Populations	COPPI, Bruno	
Magnetic Island Behavior under Non-axisymmetric Halo Current at Vertical Displacement Event	IVANOV, Nikolay	

### Poster FIP/1 - (08:30-12:30)



title	presenter	board
ITER Central Solenoid Module Fabrication	SMITH, John	
Progress of Experimental Study on Negative Hydrogen Ion Production and Extraction	KISAKI, Masashi	
Recent Progress of ITER Package in ASIPP	FU, Peng	
Progress in High Power Test of R&D Source for ITER ICRF system	MUKHERJEE, Aparajita	

### **3D Physics: EX/1 & TH/1 - (10:45-12:30)**

- Chairs: Prof. Mordijck, Saskia

time	title	presenter
10:45	Role of MHD dynamo in the formation of 3D equilibria in fusion plasmas	PIOVESAN, Paolo
11:05	Optimization of the Plasma Response for the Control of Edge-Localized Modes with 3D Fields	PAZ-SOLDAN, Carlos
11:25	Penetration and amplification of resonant perturbations in 3D ideal-MHD equilibria	HUDSON, Stuart
11:45	Enhanced understanding of non-axisymmetric intrinsic and controlled field impacts in tokamaks	IN, Yongkyoon
12:05	Enhancement of helium exhaust by resonant magnetic perturbation fields	SCHMITZ, Oliver

### **Overview 4: Magnetic Fusion: OV/4 - (14:00-16:10)**

- Chairs: Prof. Whyte, Dennis

time	title	presenter
14:00	Overview of the IFMIF/EVEDA Project	KNASTER, Juan
14:25	A Pathway to Laser Fusion Energy: Fast Ignition Realization EXperiment (FIREX)	AZECHI, Hiroshi
14:50	Overview of SST-1 Up-gradation & Recent Experiments in SST-1 & Overview of Recent Experimental Results from Aditya Tokamak	PRADHAN, Subrata
15:15	Overview of Recent Experiments on HL-2A Tokamak	DUAN, Xuru
15:40	Review of Recent Experiments on the T-10 Tokamak with All Metal Wall	SARYCHEV, Dmitrii

### **Poster 2: P2 - (14:00-18:45)**

title	presenter	board
Analysis of weakly coherent mode in I-mode with the BOUT++ code	LIU, Zixi	
The Development of SOL Transport Model for Integrated Core-SOL Simulation of L-Mode Plasma	WISITSORASAK, Apiwat	
Evaluation of Predictive Capability for Hydrogenic and Impurity Density in L- and H-mode Tokamak Plasma using Multimode Transport Model	SUWANNA, Sujin	
Recent EUROfusion Achievements in Support to Computationally Demanding Multi-scale Fusion Physics Simulations and Integrated Modelling	VOITSEKHOVITCH, Irina	
Steep gradients in plasma confined at convex-concave magnetic field lines	TSVENTOUKH, Mikhail	
Multi-species ITG-TEM driven turbulent transport of D-T ions and He-ash in ITER burning plasmas	NAKATA, Motoki	

title	presenter	board
Crucial role of zonal flows and electromagnetic effects in ITER turbulence simulations near threshold	CANDY, Jeff	
A New Understanding of the Bootstrap Current in Steep Edge Pedestal and its Effect on the Pedestal Stability	HAGER, Robert	
Development of ITER Non-Activation Phase Operation Scenarios	KIM, Sun Hee	
Investigation of Sustainable Reduced-Power non-inductive Scenarios on JT-60SA	ROMANELLI, Michele	
Gyrokinetic analysis of the effects of electron-scale turbulence on ion-scale micro-instabilities	MAEYAMA, Shinya	
ITER Fuelling Requirements and Scenario Development for H, He and DT through JINTRAC Integrated Modelling	MILITELLO ASP, Elina	
Extending the Validation of Multi-Mode Model for Anomalous Transport to High Poloidal Beta DIII-D Discharges	PANKIN, Alexei	
Alpha heating and isotopic mass scaling in JET DT plasmas	BUDNY, Robert	
A Model of The Saturation of Coupled Electron and Ion Scale Gyrokinetic Turbulence	STAEBLER, Gary M.	
New Nonlinear Microtearing Mode Transport Model for Tokamak Plasmas*	RAFIQ, Tariq	
Anomalous and Neoclassical Transport of Hydrogen Isotope and Impurity Ions in LHD Plasmas	NUNAMI, Masanori	
Gyrokinetic simulations of an electron temperature gradient turbulence-driven current in tokamak plasmas	YI, Sumin	
Gyrokinetic Simulations of Microturbulence in DIII-D pedestal	HOLOD, Ihor	
GYROKINETIC SIMULATIONS OF TOKAMAK PEDESTALS- PRESENT EXPERIMENTS AND EXTRAPOLATION TO BURNING PLASMAS	KOTSCHENREUTHER, Mike	
Progress in the theoretical description and the experimental characterization of tungsten transport in tokamaks	ANGIONI, Clemente	
On Benchmarking of Simulations of Particle Transport in ITER	NA, Yong-Su	
Gyrokinetic simulation of tokamak edge plasmas	XIAO, Yong	
Physics-based integrated modeling of the energy confinement time scaling laws in tokamaks	KIM, Jin Yong	
Direct identification of Predator-Prey dynamics in Gyrokinetic Simulations	KOBAYASHI, Sumire	
Statistical validation of transport models on baseline discharges in preparation for the extrapolation to JET D-T	KIM, Hyun-Tae	
Simulation of Neoclassical Tearing Modes in JET	POOLYARAT, Nopporn	
EUROfusion Integrated Modelling (EU-IM) capabilities and selected physics applications	FALCHETTO, Gloria	
Progress in the ITER Integrated Modelling Programme and the use and validation of IMAS within the ITER Members	PINCHES, Simon	
Global 3D Braginskii simulations of the tokamak edge region	FRANCISQUEZ, Manaure	
Core-edge coupled predictive modeling of JT-60SA high-beta steady-state plasma with impurity accumulation	HAYASHI, Nobuhiko	
Integrated Simulation of Deuterium Experiment Plasma in LHD	MURAKAMI, Sadayoshi	
Predicted fusion performance for ITER and DEMO plasmas using a BALDUR code with predictive tritium influx model	ONJUN, thawatchai	

**Poster EX/1, TH/1 - (14:00-18:45)**

title	presenter	board
Penetration and amplification of resonant perturbations in 3D ideal-MHD equilibria	HUDSON, Stuart	
Enhancement of helium exhaust by resonant magnetic perturbation fields	SCHMITZ, Oliver	
Optimization of the Plasma Response for the Control of Edge-Localized Modes with 3D Fields	PAZ-SOLDAN, Carlos	
Role of MHD dynamo in the formation of 3D equilibria in fusion plasmas	PIOVESAN, Paolo	
Enhanced understanding of non-axisymmetric intrinsic and controlled field impacts in tokamaks	IN, Yongkyoon	

**Overview 5: Magnetic Fusion OV/5 - (16:40-18:45)**

- Chairs: Dr. Lebedev, Sergei

time	title	presenter
16:40	3-D effects on transport and plasma control in the TJ-II stellarator	CASTEJÓN, Francisco
17:05	Overview of First Results from NSTX-U and Analysis Highlights from NSTX	MENARD, Jonathan
17:30	Overview of recent physics results from MAST	KIRK, Andrew
17:55	H-mode and Non-Solenoidal Startup in the Pegasus Ultralow-A Tokamak	FONCK, Raymond
18:20	Overview of Spherical Tokamak Research in Japan	TAKASE, Yuichi

## Wednesday 19 October 2016

### **In - Vessel Components: FIP/2 - (08:30-10:15)**

- Chairs: Dr. Krasilnikov, anatoli

time	title	presenter
08:30	Progress of Qualification Testing for Full-Scale Plasma-Facing Unit Prototype of Full Tungsten ITER Divertor in Japan & Progresses on WEST Platform Construction towards First Plasmas	SEKI, Yohji
08:50	Design and R&D Progress of Chinese HCCB TBS Program	KAIMING, Feng
09:10	Lessons learned for the Breeding Blanket designers from the design development of the European Test Blanket Module Systems (He, Tritium, Liquid Metal Systems)	RICAPITO, Italo
09:30	Development of Sensors for High-Temperature High-Pressure Liquid Pb/Pb-16Li Applications	SARASWAT, Abhishek
09:50	Liquid lithium loop system to solve challenging technology issues for fusion power plant	ONO, Masayuki

### **Poster 3: P3 - (08:30-12:30)**

title	presenter	board
Dominant role of turbulence in determining particle transport and confinement	MORDIJCK, Saskia	
Validation of Self-Organisation Dynamics in Fusion Plasmas	DIF-PRADALIER, Guilhem	
Plasma Response to Sustainment with Imposed-dynamo Current Drive in HIT-SI and HIT-SI3	HOSSACK, Aaron	
Effect of the EC torque on slow plasma rotation under central ECH/ECCD for NTM onset	NOWAK, Silvana	
Validating Extended MHD Models of Plasma Response Against Measurements of Islands in DIII-D	SHAFFER, Morgan	
EFFECT OF MAGNETIC SHEAR AND EQUILIBRIUM FLOWS ON COLLISIONLESS MICROTearing AND MIXED PARITY MODES IN HOT TOKAMAK PLASMAS	GANESH, Rajaraman	
Toroidally Localized Turbulence with Applied 3D Fields in the DIII-D Tokamak	WILCOX, Robert S.	
Results from the Sheared-Flow Stabilized Z-Pinch and Scaling to Fusion Conditions	SHUMLAK, Uri	
L-H Transition Threshold Physics at Low Collisionality	MALKOV, Mikhail	
Helical electric potential modulation via Zonal Flow coupling to Resonant Magnetic Perturbations	LECONTE, Michael	
Ion heating in magnetosphere plasma device RT-1	NISHIURA, Masaki	
Confinement and stability of the ITER Baseline Scenario in DIII-D	TURCO, Francesca	
SOL Effects on the Pedestal Structure in DIII-D Discharges	SONTAG, Aaron	
Ferritic Wall and Scrape-Off-Layer Current Effects on Kink Mode Dynamics	LEVESQUE, Jeffrey	
Turbulence-Flow Coupling and Poloidal Main-Ion Flow Acceleration Preceding the L-H Transition	SCHMITZ, L.	
Studies of Turbulence and Transport in the Alcator C-Mod and DIII-D Tokamaks with Phase Contrast Imaging and Gyrokinetic Modeling	PORKOLAB, Miklos	

title	presenter	board
Effects of Heat and Particle Sources Perturbations on L-H-L Transitions Based on Bifurcation Concept	CHATTHONG, Boonyarit	
Experimental results from three-ion species heating scenario on Alcator C-Mod	WRIGHT, John	
The effect of shaping on reversed field pinch dynamics	CHAHINE, Robert	
Electron Cyclotron Heating Modification of Alfvén Eigenmode Activity in DIII-D	VAN ZEELAND, Michael	
The Contribution of Perturbation Coil Geometry Induced Sidebands and MHD Response in KSTAR and DIII-D	ORLOV, Dmitri	
Dimensionless Size Scaling of Intrinsic Rotation	DEGRASSIE, John	
ExB Shear and Precession Shear Induced Turbulence Suppression	HAHM, Taik Soo	
Improved Reproducibility of Plasma Discharges via Physics-model-based q-profile Feedback Control in DIII-D	SCHUSTER, Eugenio	
Investigations of radial high-Z transport mechanisms in ICRF-heated Alcator C-Mod H-mode plasmas	REINKE, Matthew	
Analysis and prediction of momentum transport in spherical tokamaks	GUTTENFELDER, Walter	
Snowflake Divertor Configuration Effects on Pedestal Stability and Edge Localized Modes in NSTX and DIII-D	SOUKHANOVSKII, Vsevolod	
Predictions of toroidal rotation and torque sources arising in non-axisymmetric perturbed magnetic fields in tokamaks	HONDA, Mitsuru	
Effect of energy-non-transporting nonlinear flux on the turbulent plasma transport	AN, Chan-Yong	
New Results in Negative Viscosity Models for Fusion Plasma Dynamics	DIAMOND, Patrick	
Transport of parallel momentum by the triplet correlation in drift wave turbulence	KOSUGA, Yusuke	
Global kinetic effect on the collisionality dependence of the neoclassical toroidal viscosity in the superbanana-plateau regime	MATSUOKA, Seikichi	
Diamagnetic Plasma Confinement in Linear Traps	BEKLEMISHEV, Alexei	
Single Null Divertor in Negative Triangularity Tokamak	MEDVEDEV, Sergey	
Relation of plasma flow structures to particle tracer orbits	GARCIA, Luis	
ITB formation in gyrokinetic flux-driven ITG turbulence	IMADERA, Kenji	
Robust H-mode Pedestal Compatibility with SOL and Divertor Plasma Constraints	LEONARD, Anthony W.	
Progress in Theoretical RFP Studies: New Stimulated Helical Regimes and Similarities with Tokamak and Stellarator	BONFIGLIO, Daniele	
Compact Toroid Injection Fueling on a Large-sized Field-Reversed Configuration	ASAI, Tomohiko	
MHD and Kinetic Study of Axisymmetric Electrostatic Oscillations in Tokamaks with General Cross-sections and Toroidal Flow	GUO, wenfeng	
Stability of high-performance, negative central shear discharges	HANSON, Jeremy	
Solar Coronal Loops as Magnetically Confined Tori with Gravity	SUGIYAMA, Linda	
Edge- and divertor and plasma behavior in high power high performance double-null plasmas	PETRIE, Thomas W.	
Gyrokinetic simulations of electrostatic microinstabilities with bounce-averaged kinetic electrons for shaped tokamak plasmas	QI, Lei	
Modulated heat pulse propagation and partial transport barriers in 3-dimensional chaotic magnetic fields	DEL-CASTILLO-NEGRETE, Diego	

title	presenter	board
Full-f gyrokinetic simulation including kinetic electrons	IDOMURA, Yasuhiro	
Physics of Unlocked Tearing Modes and Disruption Avoidance by Feedback-Based Electromagnetic Torque Injection	OKABAYASHI, Michio	
Achievement of Field-Reversed Configuration Plasma Sustainment via 10 MW Neutral-Beam Injection on the C-2U Device	GOTA, Hiroshi	
Tokamak Turbulence Simulations using BOUT++ in Core Region	KIM, Sung Sik	
Recent Advances in Stellarator Optimization	GATES, David	
Neoclassical Toroidal Plasma Viscosity with Effects of Finite Banana Width in Finite Aspect Ratio Tokamaks	SHAING, K. C.	
Numerical Diagnostics of Turbulent Transport in Three-Dimensional Magnetic Configurations	KASUYA, Naohiro	
Experiments on Helicons in DIII-D – Investigation of the Physics of a Reactor-relevant Non-Inductive Current Drive Technology	PINSKER, Robert	
Coupling full-f gyrokinetic studies to experimental measurements of the isotope effect for FT-2 tokamak plasmas	LEERINK, Susan	
Applying the new principles of plasma self-organization to tokamak	JARBOE, Thomas	
Confinement Dynamics of Single Charged Particle in Compact Fusion Reactor (CFR)	FU, Libin	
Steady State Turbulent ITER-like Plasmas with RF drivers	HORTON, Wendell	
Investigation of RF-Induced Transport as a Mechanism to Enhance Impurity Penetration in ICRF Heated Plasmas	WUKITCH, Stephen	
Controlling Marginally Detached Divertor Plasmas	ELDOND, David	
Understanding and Predicting Profile Structure and Parametric Scaling of Intrinsic Rotation	WANG, Weixing Wang	
X-Divertors for Facilitating Detachment Without Degrading the DIII-D H-Mode	COVELE, Brent	
Compact Fusion Energy based on the Spherical Tokamak	SYKES, Alan	
Reconnection Heating Experiments and Simulations for Torus Plasma Merging Startup	ONO, Yasushi	
Developing Disruption Warning Algorithms Using Large Databases on Alcator C-Mod and EAST Tokamaks	GRANETZ, Robert	
Zonal Flows and GAMs in Comparative Gyrokinetic and Two-Fluid Tokamak Turbulence Simulations	HALLATSCHEK, Klaus	
Turbulence Evolution and Transport Behavior During Current Ramp-Up in ITER-Like Plasmas on DIII-D	MCKEE, George	
Residual Stress and Momentum Transport in Electromagnetic ITG Turbulence	KAANG, Helen	
Disruption Mitigation in the Presence of Pre-existing MHD Instabilities	SHIRAKID, Daisuke	
Effects of Localized Neoclassical Toroidal Viscosity Effects on the Toroidal Rotation Profile in KSTAR	SEOL, JaeChun	
Divertor and Core Plasma Performance Optimization Enabled by Direct Feedback Control of Surface Heat Flux on Alcator C-Mod's High-Z Vertical Target Plate Divertor	BRUNNER, Dan	

title	presenter	board
Plasma profiles and impurity screening behavior of the high-field side scrape-off layer in near-double-null configurations: prospect for mitigating plasma-material interactions on RF actuators and first-wall components*	LABOMBARD, Brian	
Predicting Cross-Scale Self-Organization in Turbulent Magnetically Confined Plasmas	RAJKOVIC, Milan	
Effects of the q Profile on Toroidal Rotation in Alcator C-Mod LHCD Plasmas	RICE, John	
Characteristics of turbulent transport in flux-driven toroidal plasmas	KISHIMOTO, Yasuaki	
The Optimization of Ion and Electron Guns Voltage in a Polywell Fusion Reactor	KAZEMYZADE, Fatemeh	
Adaptive Real-Time Pedestal Control for DIII-D and Prospects for ITER	KOLEMEN, Egemen	
Implications of multi-mode plasma response for multi-harmonic error field control in tokamaks	LANCTOT, Matthew	
Observation of an isothermal electron temperature profile with low recycling lithium walls in LTX	MAJESKI, Richard	
Robust Estimation of Tokamak Energy Confinement Scaling through Geodesic Least Squares Regression	VERDOOLAEGE, Geert	
Studies of magnetic islands in the TJ-II Helic and the related transport	MARTINELL, Julio	
Turbulent Current Drive Mechanisms	MCDEVITT, Chris	
Edge Flow from Momentum Transport by Neutrals	OMOTANI, John	
Nonlocal Plasma Response to Edge Perturbation in Tokamak	YAGI, Masatoshi	
Co- and Counter Current Rotation in Tore Supra LHCD Plasmas: Neoclassical and Turbulent Transport Processes	FENZI, Christel	
The Field-Reverse-Configuration Formation and Combine: Two Fluid Simulation	WANG, Hongyu	
Plasma-Jet-Driven Magneto-Inertial Fusion (PJMIF)	HSU, Scott	

### **Divertor & SOL Physics 1: EX/2 & TH/2 - (10:45-12:30)**

- Chairs: Prof. Stroth, Ulrich

time	title	presenter
10:45	The Role of Drifts and Radiating Species in Detached Divertor Operation at DIII-D	MCLEAN, Adam
11:05	Recent progress towards a quantitative description of filamentary SOL transport	CARRALERO, Daniel
11:25	Gyrokinetic projection of the divertor heat-flux width from present tokamaks to ITER	CHANG, Choong-Seock
11:45	TCV Experiments towards the Development of a Plasma Exhaust Solution	REIMERDES, Holger
12:05	Study of detached H-modes in full tungsten ASDEX Upgrade with N seeding by SOLPS-ITER modeling	SENICHENKOV, Ilya

### **Pedestal & ELM Physics: EX/3 - (14:00-16:10)**

- Chairs: Dr. Snyder, Philip B.

time	title	presenter
14:00	Advances in physics and performance of the I-mode regime over an expanded operating space on Alcator C-Mod	HUBBARD, Amanda



14:20	Bifurcation of Quiescent H-mode to a Wide Pedestal Regime in DIII-D and Advances in the Understanding of Edge Harmonic Oscillations	CHEN, Xi
14:40	Studies of the pedestal structure in JET with the ITER-like wall	MAGGI, Costanza
15:00	Global stabilization effect of Shafranov shift on the edge pedestal plasmas in JET and JT-60U	URANO, Hajime
15:20	The role of the density profile location on pedestal stability in ASDEX Upgrade	DUNNE, Mike
15:40	Joint experiments tailoring the plasma evolution to maximise pedestal performance	CHAPMAN, Ian

#### **Poster 4: P4 - (14:00-18:45)**

title	presenter	board
Identification of characteristic ELM evolution patterns with Alfvén-scale measurements and unsupervised machine learning analysis	SMITH, David	
Synergetic effects for electron cyclotron (EC) radiation in a tokamak reactor: interference of internal EC power loss and external EC resonance heating	MINASHIN, Pavel	
The ITER Neutral Beam Test Facility toward SPIDER operation	TOIGO, Vanni	
ICRH Scenarios for Fast-Ion Generation in Wendelstein 7-X	KAZAKOV, Yevgen	
Electro-Mechanical Design and Experimental Validation of Post Insulators for Beam Source for ITER Diagnostic Neutral Beam	MUVVALA, VENKATA NAGARAJU	
Non-inductive Electron Cyclotron Heating and Current Drive with Dual Frequency (8.2 /28 GHz) Waves in QUEST	IDEI, Hiroshi	
Concept Design of the Heavy Duty Multi-Purpose Deployer For ITER	GOTEWAL, Krishan	
Characteristics of magnetic braking depending on 3D field configuration in KSTAR	KIM, Kimin	
Improved plasma control and performance toward advanced tokamak operation in KSTAR	JEON, YoungMu	
High-Performance Data Transfer for Full Data Replication between ITER and the Remote Experimentation Centre	NAKANISHI, Hideya	
Critical gradient and kick models for fast ion profile relaxation in fusion plasmas and their validations	GORELENKOV, Nikolai	
60 GHz-300 kW Gyrotron General Design for the Mexican Tokamak "T"	GONZÁLEZ GUEVARA, Jorge Alberto	
Scrape Off Layer and Divertor Physics Advances in MAST	MILITELLO, Fulvio	
Characterization and Forecasting of Unstable Resistive Wall Modes in NSTX and NSTX-U	BERKERY, John	
Towards a self consistent evaluation of the RF wave-field and the ion distribution functions in tokamak plasmas	BERTELLI, Nicola	
H-mode divertor target heat load measurements on KSTAR	LEE, Hyungho	
Direct Destabilizations of Macro/Micro Edge Instabilities by Magnetic Perturbations	KIM, Jayhyun	
Progress of ITER Feeder System Electrical Insulation Qualification	HUANG, Xiongyi	
Gyrokinetic Particle Simulation of Fast-Electron Driven Beta-induced Alfvén Eigenmodes	ZHANG, Wenlu	
Toroidal Electromagnetic Particle-in-Cell Code with Gyro-kinetic Election and Fully-kinetic ion	LIN, Jingbo	



title	presenter	board
Parametric dependence of EPMs in NSTX	FREDRICKSON, Eric	
Drops of the Neutron Emission During NBI-induced Geodesic Acoustic Mode: A Theory and its Application to DIII-D Experiments	LUTSENKO, Vadym	
Diffusion of energetic particles due to charge changes and neoclassical tearing modes	FARENGO, Ricardo	
Design Development of the ITER Divertor Diagnostic Systems in Japan	ITAMI, Kiyoshi	
Ion-Scale Turbulence Study in KSTAR L-Mode Plasmas	LEE, Woochang	
Self-Consistent Coupling of DSMC Method and SOLPS Code for Modeling Tokamak Particle Exhaust	BONELLI, Flavia	
Fluctuation signatures of rotation reversals and non-local transport events in KSTAR L-mode plasmas	SHI, Yuejiang	
Study of toroidal rotation and ion temperature pedestals between ELM bursts on KSTAR H-mode plasmas	KO, Sehoon	
Feedback Control Design for Non-inductively Sustained Scenarios in NSTX-U Using TRANSP	BOYER, Mark	
Flow Characteristics in HyperVapotron Elements Operating with Nanofluids	SERGIS, Antonis	
Electron Cyclotron power management in ITER, the path from the commissioning phase to demonstration discharges	POLI, Francesca	
Rotation Reversal in KSTAR and Its Turbulence and Transport Characteristics	NA, Dong Hyeon	
Computational Fluid Dynamic analysis of Screw tube relevant for fusion applications	DOMALAPALLY, Phani Kumar	
Nonlinear Particle Simulation of Radio Frequency Waves in Tokamak	BAO, Jian	
Progress on Design and R&D of ITER Diagnostic-Radial X-ray Camera	HU, Liqun	
Assessment of the operational window for JT-60SA divertor pumping under consideration of the effects from neutral-neutral collisions	DAY, Christian	
Investigation of hydrogen recycling property and its control with hot wall in long duration discharges on QUEST	HANADA, Kazuaki	
Application of Physics-Based Profile Control Approach to KSTAR	KIM, Hyun-Seok	
Development and Validation of Cryostat Finite Element Model with Unique FE Method	SHARMA, TARUN KUMAR	
Profile Tolerances influence on Cryostat Base Section	SANDHU, Sarbjeet Singh	
Nonlinear Interactions of Low Frequency Alfvén Eigenmodes	LIN, Zhihong	
Conceptual design of the BestTOF neutron spectrometer for fuel ion ratio measurements at ITER	HELLESEN, Carl	
Pellet Injection Technology and Application to Mitigate Transient Events on ITER	BAYLOR, Larry R.	
Progress of EAST Neutral Beam Injection System	XIE, Yuanlai	
Observation and simulation of TAEs in KSTAR plasmas	RYU, Chang-Mo	
The effect of plasma response on losses of energetic ions in the presence of 3d perturbations in different iter scenarios	KURKI-SUONIO, Taina	
Conceptual design of a High Resolution Neutron Spectrometer system for ITER	ERICSSON, Göran	
System Level Design and Performances of the ITER Radial Neutron Camera	MAROCCO, Daniele	
Study of the Locked Mode Disruption with the 3-D Imaging Data in KSTAR*	CHOI, Minjun J.	

title	presenter	board
Progresses on WEST Platform Construction towards First Plasmas	BUCALOSSI, Jerome	
Measurements of SOL Density Increase and Poloidal Asymmetry on KSTAR ELMs	LEE, Kwan Chul	
ECH-assisted Plasma Start-up Experiment using Trapped Particle Configuration in KSTAR	LEE, Jeongwon	
Influences of non-axisymmetric field on H-mode power threshold and pedestal rotation in KSTAR	KO, Won Ha	
Japan-US Joint Research Project PHENIX (2013–2018); Heat Transfer Tests, Neutron Irradiation and Post-Irradiation Examinations for Development of He-Cooled Tungsten Divertor	HATANO, Yuji	
Loss of Pre-disruptive Runaway Electrons by Magnetic Perturbation and Its Effect on Plasma Disruption	CHEON, MunSeong	
A new branch of geodesic acoustic modes driven by fast ions	SASAKI, Makoto	
CXRS-edge Diagnostic in the Harsh ITER Environment	ZVONKOV, Aleksandr	
Global theory of beta-induced Alfvén eigenmode excited by energetic ions	MA, Ruirui	
Current Profile Evolutions with External Current Drive for KSTAR	KO, Jinseok	
Measuring and extending vertical stabilization controllability of KSTAR	HAHN, Sang-hee	
A critical gradient model for energetic particle transport from Alfvén eigenmodes: GYRO verification, DIII-D validation, and ITER projection	WALTZ, Ronald E.	
Improving fast-ion confinement in high-performance discharges by suppressing Alfvén eigenmodes	KRAMER, Gerrit J.	
Verification of a Configuration Space Method for Evaluating the All-Orders Linear Kinetic Plasma Response to RF Power	GREEN, David	
An improved rf-sheath boundary condition and implications for ICRF modeling	MYRA, James	
Fabrication of Divertor Mock-up with ODS-Cu and W by Improved Brazing Technique	TOKITANI, Masayuki	
On the structure of wave-particle interactions and nonlinear Alfvénic fluctuation dynamics	WANG, Xin	
Prospects of Density Profile and Magnetic Field Measurement on Spherical Tokamaks Using Dual Polarization Reflectometry	GREKOV, Dmytro	
Qualification, manufacturing and test of the faraday screen for long-pulse operation ICRH antenna	YANG, Qingxi	
Development of ITER poloidal steering equatorial EC launcher enhancing ECCD performance	TAKAHASHI, Koji	
Counter-NBI experiments on Globus-M	BAKHAREV, Nikolai	
Study of Nonlinear Phase of the ELMs by Comparison between ECEI ELM Observation and Nonlinear MHD Simulations	KIM, Minwoo	
Comprehensive Study on Deposition inside the Gap of Castellated Tungsten Blocks of Different Shapes	HONG, Suk-Ho	
Validation of $q(0) \geq 1.0$ in the MHD Quiescent Time after Crash of the Sawtooth Instability in KSTAR	PARK, Hyeon	
Development of ultra-high voltage insulation technology for the power supply components in neutral beam system on ITER	UMEDA, Naotaka	

title	presenter	board
Shielding and amplification of non-axisymmetric divertor heat flux by plasma response to applied 3-D fields in NSTX and KSTAR	AHN, Joon-Wook	
Coupling of Neutral-beam-driven Compressional Alfvén Eigenmodes to Kinetic Alfvén Waves in NSTX and Energy Channelling	BELOVA, Elena	
Linear and nonlinear dynamics of electron fishbones	VLAD, Gregorio	
Kinetic simulations of the full O-X-B mode conversion process and the deteriorating effect of high power levels	AREFIEV, Alexey	
Progress of Qualification Testing for Full-Scale Plasma-Facing Unit Prototype of Full Tungsten ITER Divertor in Japan	SEKI, Yohji	
Conceptual design of the Radial Gamma Ray Spectrometers system for alpha particle and runaway electron measurements at ITER	NOCENTE, Massimo	
Parallel Momentum Transport Induced by RF Waves and by Plasma Turbulence	GAO, Zhe	
Investigation of merging/reconnection heating during solenoid-free startup of plasmas in the MAST spherical tokamak	TANABE, Hiroshi	
Manufacturing and Commissioning of Large Size UHV Class Vacuum Vessel for Indian Test Facility (INTF) for Neutral Beams	JOSHI, Jaydeepkumar	
High Power Testing of Water-cooled Waveguide for ITER ECH Transmission Lines	ANDERSON, James	
Exploring the Regime of Validity of Global Gyrokinetic Simulations with Spherical Tokamak Plasmas	REN, Yang	
ELM Characterization and Dynamics at Near-Unity A in the Pegasus ST	BONGARD, Michael	
Comparative study of KSTAR and DiPS-2 on the heat flux to the first wall	BAE, Min-Keun	
On Fast Ions Diagnostics with Gamma-Ray Spectrometry in ITER	GIN, Dmitry	
Effect of wall light reflection in ITER diagnostics	KAJITA, Shin	
Long-lived pressure-driven MHD mode in KSTAR plasmas	LEE, Sang Gon	
Large RF field amplitudes in the SOL and far-field RF sheaths: a proposed mechanism for the anomalous loss of RF power to the SOL of NSTX	PERKINS, Rory	
ITER Core Thomson scattering: Objectives and Error Analysis	MUKHIN, Eugene	
Kinetic profiles and impurity transport response to 3D-field triggered ELMs in NSTX	SCOTTI, Filippo	
Kinetic modelling of runaways in fusion plasmas	FÜLÖP, Tünde	
Extension of operational boundary of high-beta long-pulse operation at KSTAR	YOON, Si-Woo	
Simulations of Energetic Particle Driven Geodesic Acoustic Mode and Global Alfvén Eigenmode in 3-dimensional LHD Equilibrium	WANG, Hao	
Generation of runaway electrons during the thermal quench in tokamaks	ALEYNIKOV, Pavel	
A Fully-Neoclassical Finite-Orbit-Width Version of the CQL3D Fokker-Planck Code	PETROV, Yuri	
Hybrid Simulations of beam-driven fishbone and TAEs in NSTX	FU, Guoyong	
Plasma Start-up Experiments on the TST-2 Spherical Tokamak	EJIRI, Akira	
Temperature Anisotropy in Magnetized Fusion Plasma	SID, Abdelaziz	
Optimization of multipole permanent magnets of H- multicusp ion source	HOSSEINZADEH, Maryam	
Low-Threshold Two-UH-Plasmon Decay as a Reason for Anomalous Backscattering and Absorption in Second Harmonic ECRH Experiments	GUSAKOV, Evgeniy	

title	presenter	board
Global gyrokinetic simulation of energetic particle-driven instabilities in 3D systems	SPONG, Donald	
Nonlinear excitation of subcritical fast ion-driven modes	LESUR, Maxime	
On Excitation of Zonal Structures by Kinetic Alfvén Waves	CHEN, Liu	
Nonlinear excitation of fine-structure zonal flow by Alfvén eigenmodes	QIU, Zhiyong	
Design Progress of ITER Glow Discharge Cleaning Permanent Electrode	CAI, Lijun	
Upgradation of Aditya Tokamak with Limiter Configuration to Aditya Upgrade Tokamak with Divertor Configuration	GHOSH, Joydeep	
Re-commissioning of the Spherical Tokamak MEDUSA in Costa Rica	VARGAS-BLANCO, Ivan	
High-Performance Computational Modeling of Plasma-Surface Interactions and RF Antennas	JENKINS, Thomas	
Locked-mode avoidance and recovery without external momentum input using ICRH	DELGADO-APARICIO, Luis F.	
Experimental Studies In The Ion Source Of 5MW Neutral Beamline For HL-2M Tokamak	WEI, Huiling	
The assessment of the neutron yield and the toroidal distribution of neutron emission on deuterium beam-plasma interaction dominated KSTAR operation	KWAK, Jong-Gu	
Scattering of Radio Frequency Waves by Density Fluctuations in Tokamak Plasmas	RAM, Abhay	
Non-inductive Production of Extremely Overdense Spherical Tokamak Plasma by Electron Bernstein Wave Excited via O-X-B Method in LATE	TANAKA, Hitoshi	
Synergy of numerical simulations and experimental measurements to improve the interpretation of negative ion beam properties	SERIANNI, GIANLUIGI	
PROGRESS ON INTEGRATED DESIGN OF ITER POLOIDAL POLARIMETER FOR CURRENT PROFILE MEASUREMENT	IMAZAWA, Ryota	
Liquid Metal Flow Control Simulation at Liquid Metal Experiment	MODESTOV, Mikhail	
ELM, Edge Turbulence and Their Interaction in the ELM-crash Suppression Phase under the n=1 RMP	LEE, Jaehyun	
Design Progress of ITER Glow Discharge Cleaning System	WANG, Yingqiao	
Effect of Collisionality and Detachment Onset on the Scrape-off Layer Heat Flux Profiles in NSTX	GRAY, Travis	
Study on EBW assisted start-up and heating experiments via direct XB mode conversion from low field side injection in VEST	LEE, HyunYeong	
Experimental observations of beam-driven Alfvén eigenmodes in KSTAR	KIM, Junghee	
TCV divertor and heating upgrades for contributing to DEMO physics basis	FASOLI, Ambrogio	
The Development of the European 1 MW, 170 GHz CW Gyrotron for the ITER Electron Cyclotron Heating System	ALBAJAR, Ferran	
TAE during minor disruptions in the SUNIST spherical tokamak	TAN, Yi	
MODELING THE LITHIUM LOOP IN A LIQUID METAL DIVERTOR FOR FUTURE FUSION REACTORS	ZANINO, roberto	
Integration of core/edge plasmas in fullwave RF simulation	SHIRAIWA, Syun'ichi	
Overview of ITPA R&D Activities for Improvement of ITER Diagnostic Performance	KAWANO, Yasunori	
Comparison of helium glow and lithium evaporation wall conditioning techniques in achieving high performance H-mode discharges in NSTX	MAINGI, Rajesh	

title	presenter	board
Characteristics of Halo Current in the KSTAR Tokamak	BAK, Jun Gyo	
Effects of ECH and RMP on Argon Impurity Transport in KSTAR Plasmas	HONG, Joochwan	
Isolation of Neoclassical Toroidal Viscosity Profile Under Varied Plasma and 3D Field Conditions in Low and Medium Aspect Ratio Tokamaks	SABBAGH, Steven	
Technical Preparation for Series Production of ITER Enhance Heat Flux FW Panels	CHEN, Jiming	
Investigation of MHD Stability in KSTAR High Normalized Beta Plasmas	PARK, Young-Seok	
Research and Development Progress of the ITER PF Converter System	SONG, zhiquan	
Isotopic Effect of Parametric Instabilities during Lower Hybrid Waves Injection into Hydrogen/Deuterium Plasmas	ZHAO, Aihui	

### **Poster FIP/2, EX/2, TH/2 - (14:00-18:45)**

title	presenter	board
Lessons learned for the Breeding Blanket designers from the design development of the European Test Blanket Module Systems (He, Tritium, Liquid Metal Systems)	RICAPITO, Italo	
Development of Sensors for High-Temperature High-Pressure Liquid Pb/ Pb-16Li Applications	SARASWAT, ABHISHEK	
Design and R&D Progress of Chinese HCCB TBS Program	FENG, Kaiming	
Recent progress towards a quantitative description of filamentary SOL transport	CARRALERO, Daniel	
Gyrokinetic projection of the divertor heat-flux width from present tokamaks to ITER	CHANG, Choong-Seock	
Liquid lithium loop system to solve challenging technology issues for fusion power plant	ONO, Masayuki	
The Role of Drifts and Radiating Species in Detached Divertor Operation at DIII-D	MCLEAN, Adam	
TCV Experiments towards the Development of a Plasma Exhaust Solution	REIMERDES, Holger	
Study of detached H-modes in full tungsten ASDEX Upgrade with N seeding by SOLPS-ITER modeling	SENICHENKOV, Ilya	

### **Steady State and Hybrid scenarios: EX/4 & PPC/1 - (16:40-18:45)**

- Chairs: Dr. Wan, Baonian

time	title	presenter
16:40	Advances in the Steady-State Hybrid Regime in DIII-D – A Fully-Noninductive, ELM-Suppressed Scenario for ITER	PETTY, C. Craig
17:00	Advances in the high bootstrap fraction regime on DIII-D towards the Q=5 mission of ITER steady state	QIAN, Jinping
17:20	Development of high poloidal beta, steady-state scenario with ITER-like W divertor on EAST	GAROFALO, A. M.
17:40	Extension of Operational Regime in High-Temperature Plasmas and Effect of ECRH on Ion Thermal Transport in the LHD	TAKAHASHI, Hiromi
18:00	Extension of High-beta Plasma Operation to low collisional Regime	SAKAKIBARA, Satoru
18:20	Confinement in Wendelstein 7-X Limiter Plasmas	HIRSCH, Matthias

## Thursday 20 October 2016

### **Transport & LH Transition: EX/5 & TH/3 & PPC/2 - (08:30-10:15)**

- Chairs: Ms. Guenter, Sibylle

time	title	presenter
08:30	Evaluation of tungsten transport and concentration control in ITER scenarios	LOARTE, Alberto
08:50	Synergetic effects of collisions, turbulence and sawtooth crashes on impurity transport.	GARBET, Xavier
09:10	Turbulence and Sheared Flow Structures Behind the Isotopic Dependence of the L-H Power Threshold and H-L Back Transition on DIII-D	YAN, Zheng
09:30	Role of stationary zonal flows and momentum transport for L-H transitions in JET	HILLESHEIM, Jon
09:50	Energy Exchange Dynamics across L-H transitions in NSTX	DIALLO, Ahmed

### **Poster 5: P5 - (08:30-12:30)**

title	presenter	board
Deposition Mitigation and In-Vessel Optics Recovery in ITER	RAZDOBARIN, Alexey	
Small Specimen Test Technology Development Towards Design of Fusion DEMO Reactors and Future Direction Plan	WAKAI, Eiichi	
Transport studies with magnetic islands in fusion plasmas	LORENZINI, Rita	
Design and Analysis of SST-2 Vacuum Vessel	MANUELRAJ, ManoharStephen	
Extended scenarios opened by the upgrades of the RFX-mod experiment	PUIATTI, Maria Ester	
Enhanced measurements for MHD validation using integrated data analysis on the MST fusion research experiment	DEN HARTOG, Daniel	
Experimental Study of Deuterium Retention and Thermo-mechanical Properties in Ion-beam Displacement-damaged Tungsten	TYNAN, George	
DEUTERIUM PERMEATION THROUGH CANDIDATES STRUCTURAL MATERIALS FOR A FUSION REACTOR	SPITSYN, Alexander CHERKEZ, Dmitry BOBYR, Nikolay	
First Wall Lifetime Extension with Flowing Liquid Zone for Fusion Reactors	■AHIN, Sümer	
Investigation of initial plasma parameters on the Wendelstein 7-X stellarator using the x-ray imaging crystal spectrometer	PABLANT, Novimir	
Investigation of lanthanide-doped APLF scintillators for neutron detection	SHIMIZU, Toshihiko	
Observation/Study of Lock mode characteristics in SST-1 plasma	BHANDARKAR, MANISHA	
Determination of Radiation Damage Limits to High-Temperature Superconductors in Reactor-Relevant Conditions to Inform Compact Fusion Reactor Design	SORBOM, Brandon	
Effect of external magnetic perturbations on the EXTRAP T2R reversed-field pinch plasma	FRASSINETTI, Lorenzo	
Avalanche Boron Fusion for Laser Picosecond Block Ignition with Magnetic Trapping for Clean and Economic Reactor	HORA, Heinrich	
Improvement of Characteristics of Laser Source of Ions by changing the parameters of the target and external parameters	KHAYDAROV, Rajabbay	



title	presenter	board
Recent advances in theoretical and numerical studies of Z-pinch driven inertial confinement fusion in the IAPCM	DING, NING	
Assessment of corrosion behavior of reduced activation ferritic/martensitic steel, F82H in high temperature water	NAKAJIMA, Motoki	
Plasma start-up studies and electromagnetic field computation for SST-1 tokamak.	JANA, SUBRATA	
Application of the ECRH radiation for plasma diagnosis in Wendelstein 7-M	MOSEEV, Dmitry	
Impact of Helium Ion Energy Modulation on Tungsten Surface Morphology and Nano-Tendrils Growth	WOLLER, Kevin	
Optimization Study of Normal Conductor Tokamak for Commercial Neutron Source	FUJITA, Takaaki	
Minerva Bayesian Analysis of X-ray Imaging Spectrometer Data for Temperature and Density Profile Inference at Wendelstein 7-X	LANGENBERG, Andreas	
INVESTIGATION OF W/CU FUNCTIONALLY GRADED MATERIAL WITH CMA PARTICLES AS PLASMA FACING FOR FIRST WALL COMPONENTS	NEMATI, Narguess	
Activities for fusion energy functional and plasma facing material research at the University of Latvia	AVOTINA, Liga ZARINS, Arturs KIZANE, Gunta	
Improved Low-Aspect-Ratio RFP Performance with Active MHD Control and Associated Change in Magnetic Topology in RELAX	MASAMUNE, Sadao	
Overview of Keda Torus eXperiment Initial Results	LIU, Wandong	
Study of Properties of Tungsten Irradiated in Hydrogen Atmosphere	TAZHIBAYEVA, Irina	
Overview of recent plasma-material interaction studies in the linear plasma device PSI-2	KRETER, Arkadi	
Development of High Intensity D-T fusion Neutron Generator (HINEG)	LIU, Chao	
Present Operation Status of Target Injection System	ISHII, Katsuhiro	
Transition Metal coated Lithium containing Ceramics for Tritium Release in Nuclear Fusion Blanket	WOO, Sung Pil YOON, Young Soo	
Material Properties and Their Influence on the Behavior of Tungsten as Plasma Facing Material	WIRTZ, Marius	
Advanced Tungsten Based Materials as an Option for a Fusion Reactor	LINSMEIER, Christian	
Tungsten Composite Materials for Fusion First Wall applications	COENEN, Jan Willem	
Investigations of Tungsten as Candidate Plasma Facing Material under High Repetition and Intense Fusion-relevant Pulses	RAWAT, Rajdeep Singh	
Coherent Beam Combination for Laser Fusion Driver design using Rotation Wedge Self-Phase-Controlled Stimulated Brillouin Scattering Phase Conjugation Mirrors	KONG, Hong Jin	
Suitability of Nano-structured Materials for Inertial Fusion Reactor Inner Walls	CHAVARAMPLACKIL ISSAC, Riju	
Evidence for Trapped Electron Mode Turbulence in MST Improved Confinement RFP Plasmas	BROWER, David	
Compression and Electron Beam Heating of Solid Target under the External Magnetic Field for Fast Ignition	NAGATOMO, Hideo	
Development of dissimilar-metals joint of oxide-dispersion-strengthened (ODS) and non-ODS reduced-activation ferritic steels	NAGASAKA, Takuya	
Plasma Mirror implementation on LFEX laser for Ion and Fast Electron Fast Ignition.	MORACE, Alessio	

title	presenter	board
The Role of Beryllium Ablators in Inertial Confinement Fusion	SIMAKOV, Andrei	
High-temperature, liquid metal plasma-facing component research and development for the NSTX-U	JAWORSKI, Michael	
MHD Phenomena and Disruption Characteristics in SST-1 Early Plasma	DHONGDE, JASRAJ	
ELECTROMAGNETIC PULSE WELDING: NEED FOR NUCLEAR INDUSTRY	KUMAR, Rajesh	
Status of the intense 14 -MeV neutron generator facility for fusion reactor technology	VALA, SUDHIRSINH	
Smart tungsten alloys as first wall material for a future fusion power plant	LITNOVSKY, Andrey	
Hydrogen Isotope Retention in Tungsten Surface-modified by Heavy Ion Irradiation, Helium bubbles and Tungsten Deposition	SAKAMOTO, Mizuki	
The Accomplishments of Lithium Target and Test Facility Validation Activities in the IFMIF/EVEDA Phase	ARBEITER, Frederik	
An island-induced Alfvén eigenmode and effects of nonaxisymmetry on fast ions in the RFP	ANDERSON, Jay	
Temperature Sensitivity Analysis of Nuclear Cross Section using FENDL for Fusion-Fission System	VELASQUEZ, Carlos	
BCA-KMC Hybrid Simulation with Meta-Modeling for Hydrogen Dynamic Retention in Tungsten Material	ITO, Atsushi	
Recent Progress in the Investigation of Tritium Permeation and Retention in the First Wall for CFETR Water-Cooled Ceramic Breeder Blanket	XU, Y. -P.	
Initial Observations on Core Electron Heat Transport in W7-X	HIRSCH, Matthias	
Advanced Neutronics Simulation Tools and Data for Fusion Applications	FISCHER, Ulrich	
Mass production of deuterated polystyrene shells used in ICF and IFE targets	DU, Kai	
Error field measurement, correction and heat flux balancing on Wendelstein 7-X	LAZERSON, Samuel	
First Results from Protective ECRH Diagnostics for Wendelstein 7-X	MARSEN, Stefan	
Modeling Fuel Retention in Tungsten Plasma-Facing Materials under Realistic Tokamak Operation including Plasma Impurities	LEE, Heun Tae	
Recent Metal Wall Materials Exposure Experiments Employing MAPES on the EAST Tokamak	ZHOU, H. -S.	
New integral experiments for a variety of fusion reactor materials with DT neutron source at JAEA/FNS	SATO, Satoshi	
Plasma Facing Components Technologies in SST-1	RAVAL, Dilip C	
Transport studies during the first campaign of Wendelstein 7-X	GRULKE, Olaf	
Conceptual design and issue analysis of Laser Fusion Experiment Reactor (LIFT)	NORIMATSU, Takayoshi	
A Kinetic Investigation of Stimulated Scatterings From a Laser-irradiated Target	KARGARYAN, Ameneh	
Investigation of Gas Fueling in Aditya Tokamak Discharges	RAJ, Harshita	
Recent Activities on Heavy Ion Inertial Fusion in Japan	KIKUCHI, Takashi	
The study of fabrication high Z tungsten coating by magnetron sputtering for ICF target	LIU, Yansong HE, Zhibing	
Validation of Liquid Lithium Target Stability for Intense Neutron Source	KONDO, Hiroo	
Ostwald Ripening of Y-based Oxide Particles in 9%Cr-ODS Eurofer Steel Annealed at 1350°C	SANDIM, Hugo	



title	presenter	board
Multiscale Modeling of Materials: Light Species Dynamics in nano-W and EOS of Hydrogen	PERLADO, Jose Manuel	
Tritium Compatibility Issues on Reduced Activation Ferritic/Martensitic Steels Served as Structure Materials in a D-T Fusion Reactor	CHEN, Chang An	
Kinetic properties of edge plasma with 3D magnetic perturbations in RFX-mod	AGOSTINI, Matteo	
Investigation on irradiation effects on highly integrated leading edge electronic components of diagnostics and control systems for the LHD deuterium operation	OGAWA, Kunihiro	
Status and Strategy of CLAM Steel for Fusion Application in China	HUANG, Qunying	
Deuterium retention and melting behavior in Toughened, Fine-Grained Recrystallized Tungsten	OYA, Makoto	
Fast heating of an imploded core under counter beam irradiation by using a repetitive IFE driver HAMA	MORI, Yoshitaka	
Investigations of Plasmoid Formation and Flux Closure in Transient Coaxial Helicity Injection on HIST	NAGATA, Masayoshi	
Diagnostic set-up and modelling for investigation of synergy between 3D edge physics and plasma-wall interactions on Wendelstein 7-X	LIANG, Yunfeng	
Measurement of the plasma edge profiles using the combined probe on W7-X	DREWS, Philipp	
Developing the Science and Technology for the Material Plasma Exposure eXperiment (MPEX)	RAPP, Juergen	
Effects of Modified Surfaces Produced at Plasma-Facing Surface on Hydrogen Isotopes and Helium Release Behavior in the LHD	NOBUTA, Yuji	
Design and R&D Activities of Fusion Breeder Blankets in China	YU, JIE	
Advanced Capabilities of CAD-based n and $\gamma$ Transport Program SuperMC for Fusion Analysis	SONG, Jing	
Fusion Neutron Source Blanket: Requirements on Calculation Accuracy and Benchmark Experiment Precision	ZHIRKIN, Alexey	
Improvement in the heating efficiency of Fast Ignition inertial confinement fusion by suppressing the preformed plasma	ARIKAWA, Yasunobu	
Wetting properties of liquid lithium on steel: roughness and microstructure effects	NIETO-PEREZ, Martin	
Structural Material Innovation for Advanced Blanket Design--Current status and future prospect of ODS steels R&D--	KIMURA, Akihiko	
Unified Studies of Fast-ignition Scheme Fusion with Counterbeam Configuration	KITAGAWA, Yoneyoshi	
Adapting high resolution x-ray spectroscopy from MFE to temperature and density measurements in ICF*	HILL, K.W.	
Physics and applications of ICRH on W7-X	ONGENA, Jozef	
Limiter observations during W7-X first plasmas	WURDEN, Glen	
Spherical Convergent Plasma Fusion (SCPF) Neutron Generator by Laser Drive: Theory and Experiment	LIU, Jie	
ODS STEELS: NANOSTRUCTURE EVOLUTION UNDER IRRADIATION	ROGOZHKIN, Sergey	
Optimization process for the design of the DCLL blanket for the European DEMONstration fusion reactor according to its nuclear performances	PALERMO, Iole	
Observation of large filaments during the disruptive phase of Aditya tokamak plasma	BANERJEE, Santanu	

title	presenter	board
Design and Fabrication of the Active Cooling Divertor Components for HL-2M Tokamak	LIU, Xiang	
Progress on the Development of Linear IFMIF Prototype Accelerator and the Beam Commissioning	KASUGAI, Atsushi	
Novel Testbed Facility for PSI Issues in Fusion Reactor Conditions on the Base of Next Generation QSPA Plasma Accelerator	GARKUSHA, Igor	
Effect of defect concentration and distribution on hydrogen isotope retention and diffusion in damaged W for fusion first wall	OYA, Yasuhisa	
Enhancement of W7-X performance by symmetrization of limiter loads with error field correction coils	BOZHENKOV, Sergey	
Initial operation results from KTX	LAN, Tao	
Investigation of turbulence rotation in limiter plasmas at W7-X with a new installed Poloidal Correlation Reflectometry	KRÄMER-FLECKEN, Andreas	
Low Density Plasma Regimes in SST-1 with and without Supra-Thermal Electrons	PATEL, Kiritkumar	
The effect of transient density profile shaping on transport in large stellarators and heliotrons	DINKLAGE, Andreas	
Preparation of glow discharge polymer shells as ICF and IFE targets	HE, Xiaoshan	
H-mode Achievement and Edge Features in RFX-mod Tokamak Operation	SPOLAORE, Monica	

### **Poster EX/3, EX/4, PPC/1 - (08:30-12:30)**

title	presenter	board
Confinement in Wendelstein 7-X Limiter Plasmas	HIRSCH, Matthias	
Extension of Operational Regime in High-Temperature Plasmas and Effect of ECRH on Ion Thermal Transport in the LHD	TAKAHASHI, Hiromi	
Development of high poloidal beta, steady-state scenario with ITER-like W divertor on EAST	GAROFALO, A. M.	
Joint experiments tailoring the plasma evolution to maximise pedestal performance	CHAPMAN, Ian	
The role of the density profile location on pedestal stability in ASDEX Upgrade	DUNNE, Mike	
Advances in the high bootstrap fraction regime on DIII-D towards the Q=5 mission of ITER steady state	QIAN, Jinping	
Advances in the Steady-State Hybrid Regime in DIII-D – A Fully-Noninductive, ELM-Suppressed Scenario for ITER	PETTY, C. Craig	
Bifurcation of Quiescent H-mode to a Wide Pedestal Regime in DIII-D and Advances in the Understanding of Edge Harmonic Oscillations	CHEN, Xi	
Advances in physics and performance of the I-mode regime over an expanded operating space on Alcator C-Mod	HUBBARD, Amanda	
Global stabilization effect of Shafranov shift on the edge pedestal plasmas in JET and JT-60U	URANO, Hajime	
Studies of the pedestal structure in JET with the ITER-like wall	MAGGI, Costanza	

### **Energetic Particles Physics: EX/6 & TH/4 - (10:45-12:30)**

- Chairs: Mr. HORIUCHI, Ritoku

time	title	presenter
10:45	The role of plasma response on fast-ion losses induced by edge 3D fields in the ASDEX Upgrade and DIII-D tokamaks	GARCIA-MUNOZ, Manuel
11:05	High fidelity simulations of fast ion power flux driven by 3D field perturbations on ITER	AKERS, Robert
11:25	Critical Gradient Behavior of Fast-Ion Transport from Alfvén Eigenmodes Guides Predictive Models for Burning Plasmas	COLLINS, Cami
11:45	Gyrokinetic investigation of the nonlinear interplay of Alfvén instabilities and energetic particles in tokamaks.	BIANCALANI, Alessandro
12:05	First-Principle Simulations Reproduce Multiple Cycles of Abrupt Large Relaxation Events in Beam-Driven JT-60 Plasmas	BIERWAGE, Andreas

### **Inertial Fusion Experiments & Theory: IFE/1 - (14:00-16:10)**

- Chairs: Prof. Perlado, Jose Manuel

time	title	presenter
14:00	Overview of the Laser Megajoule First Experiments	MIQUEL, Jean-Luc
14:20	Fast ignition inertial confinement fusion with kilo-tesla magnetic field	FUJIOKA, Shinsuke
14:40	Observations of residual bulk-fluid motion and low-mode areal-density asymmetries at peak convergence in NIF implosions through spectral measurements of DD and DT neutrons	FRENJE, Johan
15:00	Laser-driven Ion Acceleration on LFEX for Fast Ignition: State of the Art and Applications	YOGO, Akifumi
15:20	Ion Kinetic Dynamics in Strongly-Shocked Plasmas Relevant to ICF	RINDERKNECHT, Hans
15:40	LFEX-Laser: A Multi-Kilojoule, Multi-Petawatt Heating Laser for Fast Ignition	KAWANAKA, Junji

### **Poster 6: P6 - (14:00-18:45)**

title	presenter	board
The field line map approach for simulations of plasma edge/SOL turbulence	STEGMEIR, Andreas	
Plasma-surface interactions leading to self-sustained discharges at the first wall	TSVENTOUKH, Mikhail	
Fluid-kinetic approach for 3D plasma edge transport in helium plasmas	HASENBECK, Felix Martin Michael	
A model for predicting tritium flux from blanket mock-up in Tokamak fusion reactors	SANGAROON, Siriyaporn	
Pulse-resolved measurements of material migration in the JET-ILW divertor by quartz crystal microbalance	KIRSCHNER, Andreas	
Impurity Transport Caused by Blob and Hole Propagations	HASEGAWA, Hiroki	
An Effective Method to Increase the Fueling Penetration Depth of SMBI	WANG, Zhanhui	
Progress in understanding the role of low-Z impurity in the confinement in JET-ILW and in JET-C plasmas	GIROUD, Carine	
Recent Results on High-Triangularity H-mode Studies in JET-ILW	ELENA, de la Luna	
Multiscale modelling of sheath physics in edge transport codes	MELLET, Nicolas	
Plasma Instabilities Represent Serious Threat for a Successful Tokamak Concept	HASSANEIN, Ahmed	
Overview of the Preliminary Design of the ITER Plasma Control System	SNIPES, Joseph	

title	presenter	board
Plasma-wall interaction studies in the full-W ASDEX Upgrade during helium plasma discharges	HAKOLA, Antti	
Neutral Recycling Effect on Edge ITG Turbulence and Transport	STOTLER, Daren	
The role of ELM's and inter-ELM phases in the transport of heavy impurities in JET	VALISA, Marco	
Study of the Effect of Magnetic Expansion in Snowflake Divertor on Impurity Screening for CFETR	YE, Minyou	
Comprehensive Analysis of Metal Dust Particles in JET-ILW, and Impact on Fusion Reactor	ASHIKAWA, Naoko	
Recent ion cyclotron resonance heating experiments in JET in preparation of a DT campaign	VAN EESTER, Dirk	
Big Data Machine Learning for Disruption Predictions	TANG, William	
Multi-machine analysis of termination scenarios, providing the specifications for controlled shutdown of ITER discharges	DE VRIES, Peter	
MHD Observations Around L-H Transitions in JET	SOLANO, Emilia R.	
Pedestal-to-Wall 3D Fluid Transport Simulations on DIII-D and NSTX	LORE, Jeremy	
Phase-space resolved measurements of the influence of RF heating and MHD instabilities on the fast-ion distribution in ASDEX Upgrade	WEILAND, Markus	
Detailed Survey of Dust Particles from JET with the ITER Like Wall: Origin, Composition and Internal Structure	FORTUNA-ZALESNA, Elzbieta	
Strong Electron Emission Could Enable a New Plasma-Surface Interaction Regime in Divertors	CAMPANELL, Michael	
Investigation of Neutral Particle Dynamics in Aditya Tokamak Plasma with DEGAS2 Code	DEY, Ritu	
Plasma disruption management in ITER	LEHNEN, Michael	
Retention and Release of Hydrogen Isotopes in Tungsten Plasma Facing Components: Understanding and Controlling with an Integrated Approach	BISSON, Régis	
Divertor heat flux simulations in ELMy H-mode discharges of EAST and other tokamaks	XIA, Tianyang	
Ion Cyclotron Range of Frequency Power Challenges and Solutions	NOTERDAEME, Jean-Marie	
Contribution to the multi-machine pedestal scaling from COMPASS tokamak	KOMM, Michael	
Evolution and control of tungsten transport in the termination phase of JET H-mode discharges and implications for ITER	KOECHL, Florian	
Dynamics of tungsten erosion under ELM-like intense heat loads	ARAKCHEEV, Aleksey	
Plasma Control Studies Using DIII-D Design Tools in Support of ITER	HUMPHREYS, David	
Advances in Neutral Beam Current Drive Experiments on ASDEX Upgrade	HOPF, Christian	
Physics, control and mitigation of disruptions and runaway electrons in the EUROfusion Medium Size Tokamaks science programme	MARTIN, Piero	
A multi-machine analysis of non-axisymmetric and rotating halo currents	MYERS, Clayton	
Plasma particle and energy exhaust to and recycling at a tungsten surface	TANG, Xianzhu	
Realtime tokamak simulation with a first-principle-based neural network turbulent transport model	CITRIN, Jonathan	

title	presenter	board
Assessment of X-point target divertor configuration for power handling and detachment front control	UMANSKY, Maxim	
The Role of the neoclassical $E_r$ for the L-H Transition in ASDEX Upgrade	PÜTTERICH, Thomas	
Integrated Simulations of H-mode Operation in ITER including Core Fuelling, Divertor Detachment and ELM Control	POLEVOI, Alexei	
Density Peaking in JET - Driven by Fuelling or Transport?	TALA, Tuomas	
Modelling ITER Asymmetric VDEs through Asymmetries of Toroidal Eddy Currents	ROCELLA, riccardo	
Nonlinear dynamics of ELMs with $E_r$ shear and collisionality trends	XU, Xueqiao	
Comparison of Runaway Electron Generation Parameters in Small, Medium-sized and Large Tokamaks – A Survey of Experiments in COMPASS, TCV, ASDEX-Upgrade and JET	PLYUSNIN, Vladislav V	
Corrosion compatibility of capillary-porous system solid base with low melting metals applied as plasma facing materials for tokamak	VERTKOV, Alexey	
IShTAR: a dedicated facility to characterize the interactions between ICRF waves and plasma	CROMBE, Kristel	
Basic studies of blob dynamics in X-point configurations and interaction with suprathermal ions in the TORPEX device	FURNO, Ivo	
Electron Heat Transport in JET from Ion to Electron scales: Experimental Investigation and Gyro-kinetic Simulations	MANTICA, Paola	
Growth estimates, control and structures in a two-field model of the scrape-off layer	BIZARRO, João P. S.	
Neutron yield studies in JET H-modes	WEISEN, Henri	
ERO modelling of Be erosion in JET and extrapolation of the data for ITER	BORODIN, Dmitiriy	
Confinement Scaling of Advanced Inductive Scenarios using Dimensionless Parameter Techniques	LUCE, Timothy C.	
The role of statistical noise in edge plasma transport codes based on kinetic Monte Carlo solvers for neutrals: an analogy with turbulent fluctuations	MARANDET, Yannick	
Comparison of Divertor Heat Flux Splitting by 3D Fields with Field Line Tracing Simulation in KSTAR	CHOE, Wonho	
Pedestal and core turbulence dynamics using $1\mu\text{s}$ sweeping profile reflectometry	CLAIRET, Frederic	
Long-term fuel retention and release in JET ITER-Like Wall at ITER-relevant baking temperatures	HEINOLA, Kalle	
Assessment of the Baseline Scenario at $q_{95}\sim 3$ for ITER	SIPS, Adrianus	
Scrape-Off Layer Turbulence in Tokamaks Simulated with a Continuum Gyrokinetic Code	HAKIM, Ammar	
Understanding the Blobby Turbulence in Edge Plasma from Gyrokinetic Simulation	KU, Seung-Hoe	
Studies of Alfvén eigenmodes in the ITER baseline scenario, sawtoothed JET plasmas, and MAST hydrogen-deuterium plasmas	SHARAPOV, Sergei	
Analysis of the impact of nitrogen- & neon-seeding on ASDEX-Upgrade H-Modes with SOLPS simulations	REIMOLD, Felix	
Modelling of Prompt Deposition of Tungsten under Fusion Relevant Conditions	KIRSCHNER, Andreas	
Numerical investigation of 3-D plasma edge transport and heat fluxes including impurity effects in Wendelstein 7-X start-up plasmas with EMC3-Eirene	EFFENBERG, Florian	

title	presenter	board
Impact of the JET ITER-like wall on H-mode plasma fuelling	WIESEN, Sven	
Progress towards self-consistent treatment of turbulence in edge plasma modelling codes	TAMAIN, Patrick	
Thermal analysis of transient tungsten melting experiments at JET	CORRE, yann	
Numerical analyses of baseline JT-60SA design concepts with the COREDIV code	ZAGORSKI, Roman	
Kinetic Understanding of Neoclassical Scrape-off Layer Physics, Comparison with Fluid Modeling, and Experimental Validation	CHURCHILL, Randy	
Multi-machine experimental investigation of ion cyclotron emission	D'INCA, Rodolphe	
Generation of the disruption mitigation trigger: developing a preliminary design for ITER	PAUTASSO, Gabriella	
Ion heat and toroidal momentum transport studies in the H-mode transport barrier of ASDEX Upgrade	VIEZZER, Eleonora	
Losses of runaway electrons in MHD-active plasmas of the COMPASS tokamak	MLYNAR, Jan	
First Results of the Stellarator of Costa Rica 1 (SCR-1)	MORA-MELÉNDEZ, Jaime	
Turbulence characteristics of the I-mode confinement regime in ASDEX Upgrade	MANZ, Peter	
Ion Cyclotron Resonance Heating for Tungsten Control in JET H-mode Scenarios	GONICHE, Marc	
EMC3-EIRENE Simulations for the Impact of External Magnetic Perturbations on EAST Edge Plasma	HUANG, Juan	
Progress in first-principles simulation of SOL plasma turbulence and neutral atom dynamics with the GBS code	RICCI, Paolo	
Kinetic modeling of tungsten impurity transport using the IMPGYRO code	YAMOTO, Shohei	
Fuel Inventory and Deposition in Castellated Beryllium Structures in JET	RUBEL, Marek	
Observation of KBM and MTM in JIPPT-IIU tokamak plasmas using a heavy ion beam probe	WATARI, Tetsuo	
Particle simulation on blob formation and propagation in an open system	KATANUMA, Isao	
Plasma response of external magnetic perturbations at the edge: Comparisons between measurements and 3D MHD models	WILLENSDORFER, Matthias	
Particle simulation of plasma heat-flux dissipation by evaporated wall materials	IBANO, Kenzo	
MHD limits and plasma response in high beta hybrid operations in ASDEX Upgrade	IGOCHINE, Valentin	

### **Poster EX/5, TH/3, PPC/2, EX/6, TH/4 - (14:00-18:45)**

title	presenter	board
Evaluation of tungsten transport and concentration control in ITER scenarios	LOARTE, Alberto	
First-Principle Simulations Reproduce Multiple Cycles of Abrupt Large Relaxation Events in Beam-Driven JT-60 Plasmas	BIERWAGE, Andreas	
Critical Gradient Behavior of Fast-Ion Transport from Alfvén Eigenmodes Guides Predictive Models for Burning Plasmas	COLLINS, Cami	
Gyrokinetic investigation of the nonlinear interplay of Alfvén instabilities and energetic particles in tokamaks	BIANCALANI, Alessandro	
The role of plasma response on fast-ion losses induced by edge 3D fields in the ASDEX Upgrade and DIII-D tokamaks	GARCIA-MUNOZ, Manuel	

title	presenter	board
High fidelity simulations of fast ion power flux driven by 3D field perturbations on ITER	AKERS, Robert	
Role of stationary zonal flows and momentum transport for L-H transitions in JET	HILLESHEIM, Jon	
Energy Exchange Dynamics across L-H transitions in NSTX	DIALLO, Ahmed	
Turbulence and Sheared Flow Structures Behind the Isotopic Dependence of the L-H Power Threshold and H-L Back Transition on DIII-D	YAN, Zheng	
Synergetic effects of collisions, turbulence and sawtooth crashes on impurity transport	GARBET, Xavier	

### **Materials & Fusion Nuclear Science: MPT/1 & FNS/1 - (16:40-18:45)**

- Chairs: Prof. Muroga, Takeo

time	title	presenter
16:40	Recent Advances in Radiation Materials Science from the US Fusion Reactor Materials Program	STOLLER, roger
17:00	Overview on Decade Development of Plasma-Facing Components at ASIPP & Advances in Understanding of High-Z Material Erosion and Re-deposition in Low-Z Wall Environment in DIII-D	LUO, GUANG-NAN
17:20	Overview of Fuel Inventory in JET with the ITER-Like Wall	WIDDOWSON, Anna
17:40	Status of DEMO-FNS development	SHPANSKIY, Yuri
18:00	Activation, Decay Heat, and Waste Classification Studies of the European DEMO Concept	GILBERT, Mark
18:20	Optimizatiing Full-coverage Free Surface Flow for Liquid Metal PFCs	XU, Zengyu



## Friday 21 October 2016

### **RF & SOL Physics: EX/7 & TH/5 - (08:30-10:15)**

- Chairs: Mr. Liu, Yong

time	title	presenter
08:30	Novel Reactor Relevant RF Actuator Schemes for the Lower Hybrid and the Ion Cyclotron Range of Frequencies	BONOLI, Paul
08:50	Influence of the Scrape Off Layer on RF Actuator Performance	WALLACE, Gregory
09:10	Observation of carbon impurity flow in the edge stochastic magnetic field layer of Large Helical Device and its impact on the edge impurity control	OISHI, Tetsutarou
09:30	Assessment of Divertor Heat Load with and without External Magnetic Perturbation & Elimination of the Non-Axisymmetric inter-ELM Heat Flux Generated by Resonant Magnetic Perturbations in Detached Divertor Conditions	SIEGLIN, Bernhard
09:50	Role of neutral gas in Scrape-off Layer of tokamak plasmas	BISAI, Nirmal Kumar

### **Poster 7: P7 - (08:30-12:30)**

title	presenter	board
Evolutions of EU DEMO reactor Magnet System design along the recent years and lessons learned for the future	ZANI, Louis	
First Experiments in H-mode Plasmas with the Passive-Active Multijunction LHCD Launcher in HL-2A and Impact on Pedestal Instabilities	EKEDAHL, Annika	
Integrated Concept Development of Next-Step Helical-Axis Advanced Stellarators	WARMER, Felix	
D-T fuel system of DEMO-FNS tokamak with tritium breeding blanket	ANANYEV, sergey	
How Tokamak Interface Requirements are Driving the Design of TBM Systems in ITER towards Breeding Blanket Design in DEMO	FERRARI, Marco	
Design and development activities for the instrumentation of the HCLL and HCPB Test Blanket Modules in ITER	CALDERONI, Patrick	
Multiscale Integral Analysis of Tritium Leakages in Fusion Power Plants	VELARDE, Marta	
Zero D and 1 ½ D Transport Analysis of SST 2	MENON, Vinay	
Upgrade and operational performance of EAST cryogenic system	ZHANG, qiyong	
Predictions of the baseline operation scenario in Chinese fusion engineering test reactor	LI, Guoqiang	
Status of Tokamak T-15MD	KHVOSTENKO, Petr	
Development and Application of the Passive-Active Multijunction Antenna for High Power Lower Hybrid Wave on HL-2A	XINGYU, Bai	
Experimental study of radio-frequency driven spontaneous rotation for high-performance plasmas on EAST	LYU, Bo	
Experimental evaluation of Langmuir probe sheath potential coefficient	XU, Min	
Effect of Low Hybrid Current Drive on Pedestal Instabilities in the HL-2A Tokamak	XIAO, Guoliang	
Effect of the Transition to Improved Core Confinement Observed in the LHCD Experiment at FT-2 Tokamak	LASHKUL, Sergey	
DEMO Port Plug Design and Integration Studies	GROSSETTI, Giovanni	



title	presenter	board
Runaway Electrons Studies with Hard X-Ray and Microwave Diagnostics in the FT-2 Low-Hybrid Current Drive Discharges	SHEVELEV, Alexander	
Conceptual design of the DEMO NBIs: main developments and R&D achievements	SONATO, Piergiorgio	
Development of a 3-m HTS FNSF Device and the Qualifying Design and Engineering R&D needed to meet the Low AR Design Point	BROWN, Thomas	
Synchronization of GAMs and Magnetic Fluctuations on HL-2A tokamak	YAN, Longwen	
Remote Third Shift EAST Operation: A New Paradigm	SCHISSEL, David	
Studies on ISTTOK during edge electrode biasing assisted AC operation	MALAGUIAS, Artur	
Current drive with combined electron cyclotron wave and high harmonic fast wave in tokamak plasmas	GONG, Xueyu	
Investigation of line emissions from low-ionized tungsten ions in HL-2A based on laser blow-off technique	DONG, Chunfeng	
Thermal-hydraulics and Structural analyses of LLCB TBM set	SHARMA, Deepak	
Conceptual design of the DEMO EC-system: main developments and R&D achievements	GRANUCCI, GUSTAVO	
Plasma Core Fuelling by Cryogenic Pellet Injection in the TJ-II Stellarator	MCCARTHY, Kieran Joseph	
The Articulated Inspection Arm Development	VILLEDIEU, Eric	
High Frequency Magnetic Oscillations in the TUMAN-3M Ohmically Heated Plasmas	LEBEDEV, Sergei	
ELM suppression using resonant magnetic perturbation in EAST	SUN, Youwen	
Proposal of the Confinement Strategy for EU DEMO	JIN, Xue Zhou	
Assessment of Potential and Breakeven Prices of Fusion Power Plants under Low-Carbon Development Scenarios	GI, Keii	
NSTX-U Contributions to Disruption Mitigation Studies in Support of ITER	RAMAN, Roger	
Experimental approaches to control the tungsten accumulation in long-pulse H-mode discharges with type-I ELMs in the EAST tokamak	ZHANG, Ling	
Effect of Pedestal Deposited Impurity on ELMs in the HL-2A tokamak	ZHANG, Yipo	
Contribution of Joint Experiments on Small Tokamaks in the framework of IAEA Coordinated Research Projects to mainstream Fusion Research	STOCKEL, Jan	
NTMs stabilization and their behavior in high beta <sub>p</sub> long-pulse H mode discharges on EAST tokamak	ZHANG, Yang	
Reciprocating Langmuir Probes Set Design for the Mexican Tokamak "T"	MUÑOZ OVALLE, Omar Alejandro	
Approaches for the qualification of exhaust solutions for DEMO-class devices	MORRIS, William	
Fishtail Divertor-A New Divertor Concept on EAST For Active Control of Heat Load on Divertor Plate	ZHANG, Xiaodong	
Nuclear analysis of structural damage and nuclear heating on enhanced K-DEMO divertor model	PARK, JongSung	
Investigation of mechanisms for the generation of blobs/holes at the boundary of the HL-2A tokamak	XU, Yuhong	
Experimental investigation of interaction between turbulence and large-scale mode structures in HL-2A	Ji, Xiaoquan	

title	presenter	board
Toroidal flow driven with magnetic islands in the edge tokamak plasmas	ZHAO, Kaijun	
Plasma-Material Interaction Research for Heat and Particle Removal in Magnetic Confined Fusion Environments at SWIP	ZHENG, Pengfei	
Towards the completion of the CEA Contributions to the Broader Approach Projects	VALLET, Jean-Claude	
Excitation of Electromagnetic Turbulence by Edge Self -accumulated and Externally Seeded Impurity in H-mode Plasmas of the HL-2A Tokamak	ZHONG, Wulyu	
ELM Pacing with High Frequency Multi-species Impurity Granule Injection in NSTX-U H-Mode Discharges	LUNSFORD, Robert	
Study of impurity transport in the HL-2A ECRH plasmas with MHD instabilities	CUI, Zhengying	
Progress in K-DEMO Heating/Current Drive and Tokamak Configuration Development	NEILSON, George	
Control of sawtooth oscillation dynamics using externally applied stellarator transform	MAURER, David	
Nuclear Design Analyses of SST-2	DANANI, Chandan	
Spectroscopic Studies on GLAST-III Tokamak by Varying the Inductance and Charging Voltage of Vertical Field Coils	DEEBA, FARAH	
Preliminary Integration Design and Analysis of CFETR Blanket System	LEI, Mingzhun	
Role of SMBI deposition in ELM mitigation and the underlying turbulence characteristics	SHI, Zhongbing	
Experimental Identification of Resistive Ballooning Modes and Trapped Electron Modes in the Edge Plasma of the HL-2A Tokamak	XU, Jianqiang	
Recent experimental and modeling advances in the understanding of lower hybrid current drive in ITER-relevant regimes	DING, B J	
Plasma Flow, Turbulence and Magnetic Islands in TJ-II	ESTRADA, Teresa	
Heating and Confinements by the waves in the Ion Cyclotron Range of Frequencies on EAST	ZHANG, Xinjun	
Impact of pedestal plasma density and $E_r$ on edge-localized mode	KONG, Defeng	
Techno-economic aspects of high current leads for fusion devices	TANNA, Vipulkumar	
Extended Capability of the Integrated Transport Analysis Suite, TASK3D-a, for LHD Experiment, and its Impacts on Facilitating Stellarator-Heliotron Research	YOKOYAMA, MASAYUKI	
Evidence and Modelling of 3D Divertor Footprint Induced by Lower Hybrid Waves on EAST with Tungsten Divertor Operations	WANG, Liang	
Kinetic Alfvén-Ballooning Instabilities in Tokamak Plasmas with Weak Magnetic Shears and Low Pressure Gradients	CHEN, Wei	
Modification of toroidal flow velocity through momentum injection by compact torus injection into the STOR-M tokamak discharge	XIAO, Chijin	
India's Pellet fueling program	GANGARADEY, Ranjana	
The causal impact of magnetic fluctuations in slow and fast L-H transitions at TJ-II	VAN MILLIGEN, Boudewijn	
Overview and status of construction of ST40	GRYAZNEVICH, Mikhail	
Development of Regulators Synthesis Method for Magnetic Plasma Control System of the T-15 Tokamak	KHAYRUTDINOV, rustam	
Roles of an inward particle flux inducing quasi-mode in pedestal dynamics on HL-2A tokamak	DONG, Jiaqi	

title	presenter	board
DEMO Design Using the SYCOMORE System Code: Conservative Designs and Pathways towards the Reactor	REUX, Cedric	
Overview of Indian LLCB TBM program and status of R&D activities	BHATTACHARYAY, Rajendraprasad	
Ion Cyclotron Range of Frequency Power for DEMO	NOTERDAEME, Jean-Marie	
Design Of The Helium Cooled Lithium Lead Breeding Blanket in CEA: From TBM To DEMO.	AIELLO, Giacomo	
DTT: an Integrated Bulk and Edge Plasma Experiment to Tackle the Power Exhaust Problem in View of DEMO	CRISANTI, Flavio	
Helical Coil Design and Development with 100-kA HTS STARS Conductor for FFHR-d1	YANAGI, Nagato	
REVOLVER-D: The Ergodic Limiter/Divertor Consisting of Molten Tin Shower Jets Stabilized by Chains	MIYAZAWA, Junichi	
Progress Towards Achieving Large Pumping Speed for Exhaust from Fusion Grade Machines	GANGRADEY, Ranjana	
Design of Cryogenic Test Facility for Turbo-Expander of Different Configurations for Liquid Helium Plant of Tokamak Machine	SAHU, Ananta	
Future Electric Market and Fusion Deployment Strategy with Electricity Storage Systems	KONISHI, satoshi	
Direct Measurement of ELM related Momentum Transport in the Edge of HL-2A H-mode Plasmas	XU, Min	
Smaller & Sooner – Exploiting high magnetic fields from new superconductors for a more attractive fusion energy development path	WHYTE, Dennis	
Overview of Safety design and demonstration for China ITER Helium Coolant Ceramic Breeder Test Blanket System	ZHANG, Long	
Design of Charge Exchange Recombination Spectroscopy (CXRS) on SST-1 Tokamak	CHOWDHURI, M.B.	
Safety and waste management studies as design feedback for a fusion DEMO reactor in Japan	SOMEYA, Youji	
Power Handling and Plasma Protection Aspects that affect the Design of the DEMO Divertor and First Wall	WENNINGER, Ronald	
Lower hybrid current drive study toward to high performance in EAST	LI, Miaohui	
Current Transport and Density Fluctuations at L-H Transition on EAST	DING, Weixing	
Low Loop Voltage Plasma Start-Up for ITER CDA/MIK Quench Detection	LUO, Zhengping	
Comparative analysis of WCLL to different European DEMO blanket concepts in terms of activation and decay heat after exposure to neutron irradiation	STANKUNAS, Gediminas	
On the influence of ECRH on neoclassical and anomalous mechanisms using a dual Heavy Ion Beam probe Diagnostic in the TJ-II stellarator	HIDALGO, Carlos	
Key Issues Towards Long Pulse High beta-N Operation on EAST Tokamak	GAO, Xiang	
Origin of oscillating radial electric field in limit cycle oscillation on HL-2A	CHENG, Jun	
Concept of tritium processing and confinement in fuel cycle of Ignitor	ROZENKEVICH, Mikhail	
Social Research on Fusion	PRADES, Ana	
Confinement modes and magnetic-island driven modes in the TJ-II stellarator	LÓPEZ-BRUNA, Daniel	

title	presenter	board
Experiments and Modelling towards Long Pulse High Confinement Operation with Radiofrequency Heating and Current Drive in EAST	PEYSSON, Yves	
Physics and Engineering Design Studies on Power Exhaust and Divertor for a 1.5 GW Fusion Power DEMO	ASAKURA, Nobuyuki	
Exploration of Fusion Power Penetration under Different Global Energy Scenarios Using the EFDA Times Energy Optimisation Model	CABAL, Helena	
Spherical Tokamak Globus-M2: Design, Integration, Construction	MINAEV, Vladimir	
EU DEMO Heating and Current Drive: Physics and Technology	TRAN, Minh Quang	

### **Poster EX/9, EX/10, TH/7, TH/8, IFE/1, MPT/1, FNS/1 - (08:30-12:30)**

title	presenter	board
ELM Pace-making and Long-pulse ELM-stable H-mode operation with LHCD in EAST	XU, Guosheng	
Effectiveness of high-frequency ELM pacing with D2 and non-fuel pellets in DIII-D	BORTOLON, Alessandro	
Effect of the second X-point on the hot VDE for HL-2M	XUE, Lei	
Runaway electron generation and mitigation on the European medium sized tokamaks ASDEX Upgrade and TCV	PAPP, Gergely	
Assessment of the runaway electron energy dissipation in ITER	KONOVALOV, Sergey	
Mitigation of Runaway Current with Supersonic Molecular Beam Injection on HL-2A Tokamak	LIU, Yi	
Shattered Pellet Injection as the Primary Disruption Mitigation Technique for ITER	COMMAUX, nicolas	
Disruption study advances in the JET metallic wall	JOFFRIN, Emmanuel	
Diamagnetic MHD equations for plasmas with fast flow and its application to ELM analysis in JT-60U and JET-ILW	AIBA, NOBUYUKI	
Edge-localized modes on KSTAR: global structure and distinct evolution stages involving quasi-steady state and phase transitions	YUN, Gunsu	
Multi-Machine Modelling of ELMs and Pedestal Confinement: From Validation to Prediction	PAMELA, Stanislas	
Excitation of zonal flows and their impact on dynamics of edge pedestal collapse	JHANG, Hogun	
Overview on Decade Development of Plasma-Facing Components at ASIPP	LUO, G. -N.	
Fast ignition inertial confinement fusion with kilo-tesla magnetic field	FUJIOKA, Shinsuke	
Overview of the Laser Megajoule First Experiments	MIQUEL, Jean-Luc	
Activation, Decay Heat, and Waste Classification Studies of the European DEMO Concept	GILBERT, Mark	
Ion Kinetic Dynamics in Strongly-Shocked Plasmas Relevant to ICF	RINDERKNECHT, Hans	
Laser-driven Ion Acceleration on LFEX for Fast Ignition: State of the Art and Applications	YOGO, Akifumi	
LFEX-Laser: A Multi-Kilojoule, Multi-Petawatt Heating Laser for Fast Ignition	KAWANAKA, Junji	
Recent Advances in Radiation Materials Science from the US Fusion Reactor Materials Program	STOLLER, roger	
Overview of Fuel Inventory in JET with the ITER-Like Wall	WIDDOWSON, Anna	

title	presenter	board
Status of DEMO-FNS development	SHPANSKIY, Yuri	
Advances in Understanding of High-Z Material Erosion and Re-deposition in Low-Z Wall Environment in DIII-D	DING, Rui	
Optimizatiing Full-coverage Free Surface Flow for Liquid Metal PFCs	XU, Zengyu	

### **Turbulence & Transport: EX/8 & TH/6 - (10:45-12:30)**

- Chairs: Dr. Staebler, Gary M.

time	title	presenter
10:45	Magnetic shear effects on plasma transport and turbulence at high electron to ion temperature ratio in DIII-D and JT-60U plasmas	YOSHIDA, Maiko
11:05	Demonstrating the Multi-scale Nature of Electron Transport Through Experimentally Validated Simulations	HOLLAND, Christopher
11:25	Multi-Machine Analysis of Turbulent Transport in Helical Systems via Gyrokinetic Simulation	ISHIZAWA, Akihiro
11:45	Electromagnetic gyrokinetic analysis of the isotope effect	GARCIA, Jeronimo
12:05	Ion internal transport barrier in neutral beam heated plasmas on HL-2A	YU, Deliang

### **Disruptions: EX/9 & TH/7 - (14:00-16:10)**

- Chairs: Prof. Sen, Abhijit

time	title	presenter
14:00	Disruption study advances in the JET metallic wall	JOFFRIN, Emmanuel
14:20	Shattered Pellet Injection as the Primary Disruption Mitigation Technique for ITER	COMMAUX, nicolas
14:40	Mitigation of Runaway Current with Supersonic Molecular Beam Injection on HL-2A Tokamak	LIU, yi
15:00	Assessment of the runaway electron energy dissipation in ITER	KONOVALOV, Sergey
15:20	Runaway electron generation and mitigation on the European medium sized tokamaks ASDEX Upgrade and TCV	PAPP, Gergely
15:40	Effect of the second X-point on the hot VDE for HL-2M	XUE, Lei

### **Poster 8: P8 - (14:00-18:45)**

title	presenter	board
Analysis of higher harmonics on bidirectional heat pulse propagation experiment in helical and tokamak devices	KOBAYASHI, Tatsuya	
Progress of Steady State Operation Using RF Heating in the LHD	YOSHIMURA, Yasuo	
Distributed digital real-time control system for the TCV tokamak and its applications	GALPERTI, Cristian	
Study of interactions between GAMs and broadband turbulence in the T-10 tokamak	MELNIKOV, Alexander	
Isotope Effects on Long Range Correlation and the Nonlinear Coupling with Turbulence in Heliotron J	OHSHIMA, Shinsuke	
Lithium and Tungsten Limiters for 3 MW of ECR Plasma Heating in T-10 Tokamak. Design, first results	LYUBLINSKI, Igor	

title	presenter	board
Neutral Beam Heating on the TCV Tokamak	DUVAL, Basil	
Fast Ion Generation by Combination Heating of ICRF and NBI in Heliotron J	OKADA, Hiroyuki	
Investigation of Detached Recombining Plasmas in a Linear Device Pilot-PSI and its impact on Plasma Detachment in Fusion Devices	HAYASHI, Yuki	
Observation of Short Time-scale Spectral Emissions at Millimeter Wavelengths with the New CTS Diagnostic on the FTU Tokamak	BRUSCHI, Alessandro	
Impact of the LHD peripheral region and the magnetic axis shift on optimal on-axis ECRH injection for high-electron-temperature plasmas	TSUJIMURA, Toru	
Scattering of EC waves by Edge Turbulence: Measurements and modelling in TCV and TORPEX	GOODMAN, Timothy P.	
Evidence of thermo-diffusive pinch in particle transport	TUDISCO, Onofrio	
Suppression of Alfvén Eigenmodes by ECH/ECCD in Heliotron J	NAGASAKI, Kazunobu	
Strong suppression of impurity accumulation in steady-state hydrogen discharges with high power NBI heating on LHD	NAKAMURA, Yukio	
Preparation of PFCs for the efficient use in ITER and DEMO – plasma-wall interaction studies within the EUROfusion consortium	BREZINSEK, Sebastijan	
Observations of sustained phase shifted magnetic islands from externally imposed $m/n = 1/1$ RMP in LHD	NARUSHIMA, Yoshiro	
Development of Experiment on Multiple-Mirror Trap for Fusion in Budker INP	BURDAKOV, Aleksandr	
Analysis of runaway beam suppression experiments in FTU	CARNEVALE, daniele	
On Filamentary Transport in the TCV Tokamak: Addressing the Role of the Parallel Connection Length	VIANELLO, Nicola	
First experimental results of runaway beam control in TCV	ESPOSITO, Basilio	
Spatial Structure of Spontaneously Excited ICRF Waves and Relevant High-Energy Ion Loss in the GAMMA 10 Tandem Mirror	IKEZOE, Ryuya	
Physics and operation oriented activities in preparation of the JT-60SA tokamak exploitation	GIRUZZI, Gerardo	
Development of Helium Electron Cyclotron Wall Conditioning on TCV for the operation of JT-60SA	DOUAI, David	
Experimental observations and modelling of poloidal asymmetries in radiation profiles during $N_2$ seeding compared with Ne seeding in LHD	PETERSON, Byron	
Study of light and heavy impurities transport in OH and ECRH plasmas on the T-10 tokamak	NURGALIEV, Maxim	
Study of the fast-ion distribution function in the TCV tokamak based on FIDA spectroscopy and the TRANSP code	GEIGER, Benedikt	
Flow damping due to the stochastization of magnetic field in Large Helical Device	IDA, Katsumi	
Development of a Real-time Simulation Tool towards Self-consistent Scenario of Plasma Start-up and Sustainment on Helical Fusion Reactor FFHR-d1	GOTO, Takuya	
Recent Progress of Divertor Simulation Research Using the GAMMA 10/PDX Tandem Mirror	NAKASHIMA, Yousuke	
Observation of visible forbidden lines of tungsten highly charged ions in LHD core plasmas and its application to ion distribution analysis	KATO, Daiji	



title	presenter	board
Observation of the ballooning mode that limits the operation space of the high-density super-dense-core plasma in the LHD	OHDACHI, Satoshi	
Abrupt excitation of intense geodesic acoustic mode in the LHD	IDO, TAKESHI	
Stabilization of the Helically Trapped Energetic Ions driven Resistive Interchange Mode by on-axis Electron-Cyclotron-Heating in a Helical Plasma	DU, xiaodi	
Liquid metal experiments on FTU	MAZZITELLI, Giuseppe	
Role of magnetic topology to form electron internal transport barrier on Heliotron J	MINAMI, Takashi	
Disruptions and Runaway Mitigation using ECRH and Inductive Power Supply Systems in the T-10 Tokamak	SAVRUKHIN, Petr	
Formation of impurity transport barrier in LHD plasmas with hollow density profile	HUANG, Xianli	
Real-time model-based plasma state estimation, monitoring and integrated control in TCV, ASDEX-Upgrade and ITER	FELICI, Federico	
Magnetic island formation in locked-like mode in helical plasmas	TOKUZAWA, Tokihiko	
Reduction of CS flux consumption during plasma current ramp-up on DEMO reactor	WAKATSUKI, Takuma	
The physics of the heat flux narrow decay length in the TCV scrape-off layer: experiments and simulations	LABIT, BENOIT	
Improvements of ion energy confinement in helium rich plasma of LHD	TANAKA, Kenji	
Progress of Plasma Confinement Studies in the Gas Dynamic Trap	BAGRYANSKY, Peter	
Study of H-mode transition triggered by high-intensity gas puffing in NBI plasmas of Heliotron J	KOBAYASHI, Shinji	
Global particle balance and its relationship with the plasma wall interaction emerging in long pulse discharges on the Large Helical Device	MOTOJIMA, Gen	

### **Poster EX/7, EX/8, TH/5, TH/6, EX/11, TH/9, FIP/3, FIP/4, PD - (14:00-18:45)**

title	presenter	board
Assembly Technologies of the Superconducting Tokamak on JT-60SA	SHIBAMA, Yusuke	
Elimination of the Non-Axisymmetric inter-ELM Heat Flux Generated by Resonant Magnetic Perturbations in Detached Divertor Conditions	BRIESEMEISTER, Alexis	
JT-60SA TF Coil Manufacture, Test and Preassembly by CEA	DECOOL, Patrick	
Influence of the Scrape Off Layer on RF Actuator Performance	WALLACE, Gregory	
Observation of carbon impurity flow in the edge stochastic magnetic field layer of Large Helical Device and its impact on the edge impurity control	OISHI, Tetsutarou	
Validation of Theoretical Models of Intrinsic Torque in DIII-D and Projection to ITER by Dimensionless Scaling	GRIERSON, B.A.	
Novel Reactor Relevant RF Actuator Schemes for the Lower Hybrid and the Ion Cyclotron Range of Frequencies	BONOLI, Paul	
Assessment of Divertor Heat Load with and without External Magnetic Perturbation	SIEGLIN, Bernhard	
Multi-Machine Analysis of Turbulent Transport in Helical Systems via Gyrokinetic Simulation	ISHIZAWA, Akihiro	
Role of neutral gas in Scrape-off Layer of tokamak plasmas	BISAI, Nirmal Kumar	
Progress of conceptual design study on Japanese DEMO	HIWATARI, Ryoji	

title	presenter	board
Electromagnetic gyrokinetic analysis of the isotope effect	GARCIA, Jeronimo	
Ion internal transport barrier in neutral beam heated plasmas on HL-2A	YU, Deliang	
Lessons Learned from the Eighteen-Year Operation of the LHD Poloidal Coils Made from CIC Conductors	TAKAHATA, Kazuya	
Two Conceptual Designs of Helical Fusion Reactor FFHR-d1A Based on ITER Technologies and Challenging Ideas	SAGARA, Akio	
Accomplishment of DEMO R&D Activity of IFERC Project in BA activity and strategy toward DEMO	TANIGAWA, Hiroyasu	
Development of Remountable Joints and Heat Removable Techniques for High-temperature Superconducting Magnets	HASHIZUME, Hidetoshi	
Demonstrating the Multi-scale Nature of Electron Transport Through Experimentally Validated Simulations	HOLLAND, Christopher	
Magnetic shear effects on plasma transport and turbulence at high electron to ion temperature ratio in DIII-D and JT-60U plasmas	YOSHIDA, Maiko	
Development of a First-Principles Self-Consistent Core-Pedestal Model and its Application to ITER	MENEGHINI, Orso	
High Temperature Superconductors for Fusion at the Swiss Plasma Center	BRUZZONE, Pierluigi	
Development of a Systematic, Self-consistent Algorithm for K-DEMO Steady-state Operation Scenario	KANG, Jisung	
Dealing with uncertainties in fusion power plant conceptual development	KEMP, Richard	

### **ELMs Suppression & Dynamics: EX/10 & TH/8 - (16:40-18:45)**

- Chairs: Prof. Park, Hyeon K.

time	title	presenter
16:40	Effectiveness of high-frequency ELM pacing with D2 and non-fuel pellets in DIII-D	BORTOLON, Alessandro
17:00	ELM Pace-making and Long-pulse ELM-stable H-mode operation with LHCD in EAST	XU, Guosheng
17:20	Edge-localized modes on KSTAR: global structure and distinct evolution stages involving quasi-steady state and phase transitions	YUN, Gunsu
17:40	Diamagnetic MHD equations for plasmas with fast flow and its application to ELM analysis in JT-60U and JET-ILW	AIBA, NOBUYUKI
18:00	Multi-Machine Modelling of ELMs and Pedestal Confinement: From Validation to Prediction	PAMELA, Stanislas
18:20	Excitation of zonal flows and their impact on dynamics of edge pedestal collapse	JHANG, Hogun



## Saturday 22 October 2016

### **DEMO Technology: FIP/3 - (08:30-10:15)**

- Chairs: Dr. Surrey, Elizabeth

time	title	presenter
08:30	Dealing with uncertainties in fusion power plant conceptual development	KEMP, Richard
08:50	Development of a Systematic, Self-consistent Algorithm for K-DEMO Steady-state Operation Scenario	KANG, Jisung
09:10	Two Conceptual Designs of Helical Fusion Reactor FFHR-d1A Based on ITER Technologies and Challenging Ideas & Development of Remountable Joints and Heat Removable Techniques for High-temperature Superconducting Magnets & Lessons Learned from the Eighteen-Year Operation of the LHD Poloidal Coils Made from CIC Conductors	SAGARA, Akio
09:30	High Temperature Superconductors for Fusion at the Swiss Plasma Center	BRUZZONE, Pierluigi
09:50	Accomplishment of DEMO R&D Activity of IFERC Project in BA activity and strategy toward DEMO & Progress of conceptual design study on Japanese DEMO	TANIGAWA, Hiroyasu

### **Transport, PD & Construction: EX/11, TH/9, FIP/4, PD - (10:45-12:30)**

- Chairs: Dr. Hawryluk, Richard

time	title	presenter
10:45	Development of a First-Principles Self-Consistent Core-Pedestal Model and its Application to ITER	MENEGHINI, Orso
11:05	Validation of Theoretical Models of Intrinsic Torque in DIII-D and Projection to ITER by Dimensionless Scaling	GRIERSON, B.A.
11:25	Assembly Technologies of the Superconducting Tokamak on JT-60SA & JT-60SA TF Coil Manufacture, Test and Preassembly by CEA	SHIBAMA, Yusuke

### **Summary:: S/1 - (14:00-16:10)**

- Chairs: Prof. Kuteev, Boris

### **Summary:: S/2 - (16:40-18:45)**

- Chairs: Dr. BECOULET, Alain