

US/EU TTF 2017 Workshop Schedule

Monday April 24

17:30-19:30 **Registration** (Cedar Room)

Tuesday April 25

8:00-8:30 Opening (Dogwood Room)

8:30-9:30 **Transport Prediction for Experimental Planning** (Dogwood Room)

Chair: Clarisse Bourdelle

8:30-9:00 Francesca Poli (PPPL)

9:00-9:30 Alexei Pankin (LLNL)

9:30-10:00 Refreshment break

10:00-11:30 **Advances in Core Transport** (Dogwood Room)

Chair: Clarisse Bourdelle

10:00-10:30 Rachael McDermott (IPP Germany)

10:30-11:00 Alberto Mariani (EPFL Switzerland)

11:00-11:30 Kathreen Thome (ORAU)

11:30-14:00 Lunch break

Predict First Working Group (Garden Room)

Chair: Gary Staebler

14:00-14:30 Arash Ashourvan (PPPL)

14:30-15:00 Clarisse Bourdelle (CEA France)

15:00-16:00 Brainstorming: Effective Methods for Predictive
Experimental Design

Pedestal and Scrape-off-layer (Maple Room)

Chair: Phil Snyder

14:00-14:20 Ilon Joseph (LLNL)

14:20-14:40 Huiqian Wang (ORAU)

14:40-15:00 Filippo Scotti (PPPL)

15:00-15:20 Rongjie Hong (UCSD)

15:20-16:00 Discussion

16:00-16:30 Refreshment break

16:30-18:30 **Transport Toolbox Code Camp** (Azalea Room 1&2)

Chair: Nathan Howard

16:30-17:00 Brian Grierson (PPPL)

17:00-17:30 Orso Meneghini (GA)

17:30-18:00 Sterling Smith (GA)

18:00-18:30 Q&A

19:00-21:00 Banquet (Cascades Room 1&2)

Wednesday April 26

8:30-9:30 **Impact of 3D fields on Transport** (Dogwood

Room) Chair: Anne White

8:30-9:00 Yueqiang Liu (GA)

9:00-9:30 Raffi Nazikian (PPPL)

9:30-10:00 Refreshment break

10:00-11:30 **Pedestal Structure and Dynamics** (Dogwood Room)

Chair: Anne White

10:00-10:30 Devon Battaglia (PPPL)

10:30-11:00 Michael Kotschenreuther (U Texas)

11:00-11:40 Jerry Hughes (MIT) & Phil Snyder (GA)

11:40-14:00 Lunch break

14:00-16:00 **Poster Session A** (Oak Rooms 1&2)

16:00-16:30 Refreshment break

3D Fields Working Group (Garden Room) Chairs:

Dmitri Orlov, Zhihong Lin and Ilon Joseph

16:30-16:50 Jim Callen (UW)

16:50-17:10 Chris Hegna (UW)

17:10-18:30 Discussion

L/H Transition Working Group (Maple Room)

Chair: Jerry Hughes

16:30-16:50 Mikhail Malkov (UCSD)

16:50-17:10 Yumin Wang (IPP China)

17:10-17:30 Michael Leconte (NFRI Korea)

17:30-18:30 Discussion

Thursday April 27

8:30-9:30 Transport Induced by Energetic Particle Instabilities (Dogwood Room)

Chair: Mario Podesta

8:30-9:00 Bill Heidbrink (UC Irvine)

9:00-9:30 Vinicius Duarte (PPPL)

9:30-10:00 Refreshment break

10:00-11:30 Transport Induced by Energetic Particle Instabilities (Dogwood Room)

Chair: Zhihong Lin

10:00-10:30 Yaqi Liu (Peking U China)

10:30-11:00 Shawn Tang (UCLA)

11:00-11:30 Jacobo Varela (ORNL)

11:30-14:00 Lunch break

14:00-16:00 **Poster Session B** (Oak Rooms 1&2)

16:00-16:30 Refreshment break

16:30-18:30 **Working Group Sessions**

Energetic Particles Working Group (Garden Room)

Chairs: Mario Podesta & Zhihong Lin

16:30-18:30 Discussion

Non-linear AE Benchmarks

Reduced EP-transport models & their validation

Core Transport Working Group (Maple Room)

Chair: Chris Holland

16:30-16:50 Alejandro Banon Navarro (UCLA)

16:50-17:10 Alexander Creely (MIT)

17:10-17:30 Garth Whelan (UW)

17:30-18:30 Discussion

Friday April 28

8:30-9:30 **Scrape-off Layer Transport and Impact on the Core** (Dogwood Room)

Chair: Brian Grierson

8:30-9:00 David Green (ORNL)

9:00-9:30 Payam Vaezi (UCSD)

9:30-10:00 Refreshment break

10:00-11:30 **Scrape-off Layer Transport and Impact on the Core** (Dogwood Room)

Chair: Brian Grierson

10:00-10:30 Elizabeth Tolman (MIT)

10:30-11:00 Odd Erik Garcia (UIT Norway)

11:00-11:30 Ning Yan (IPP China)

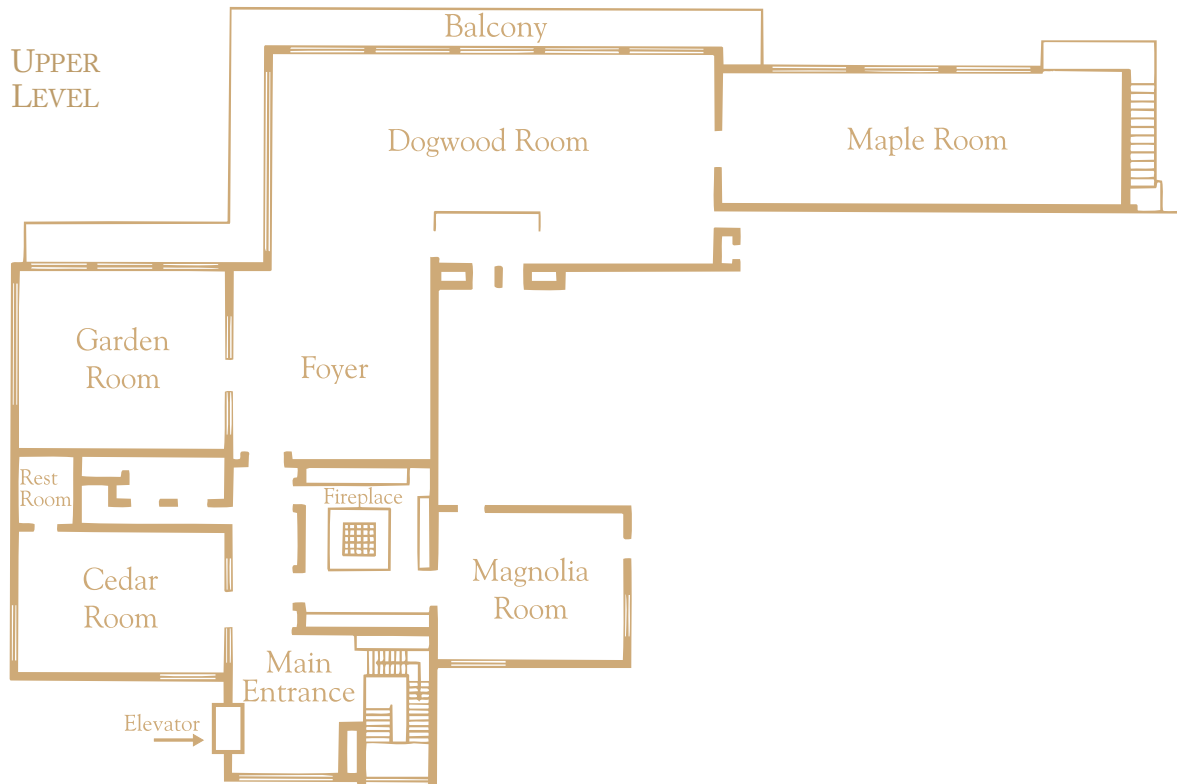
11:30-12:00 Closing

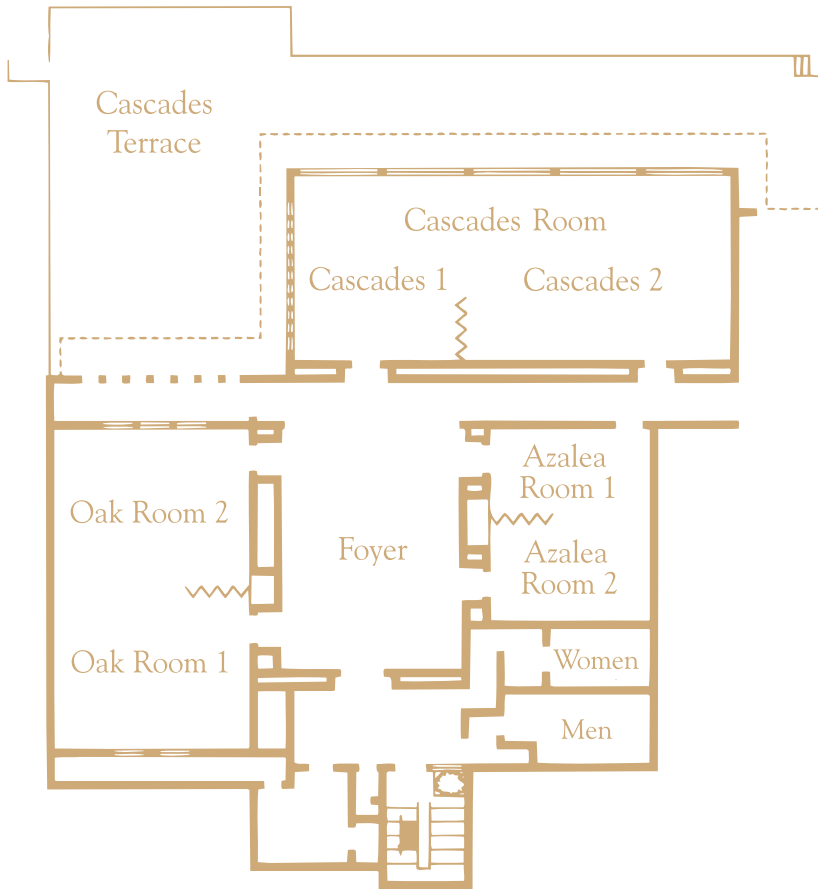
Poster A Wednesday April 26, 14:00-16:00

Author	Title
1 Alejandro Banon Navarro	Nature of Turbulence in the Presence of Magnetic Islands
2 Laszlo Bardoczi	Role of Neoclassical Tearing Mode - Turbulence Interaction in Global Confinement Degradation and Magnetic Island Stability
3 Norman Cao	Observations of Intrinsic Rotation Reversal Hysteresis in Alcator C-Mod Plasmas
4 Alexander Creely	Experimental Techniques at ASDEX Upgrade for Validation of Gyrokinetic Simulations
5 Patrick Diamond	Multi-Scale and Multi-Step: Zonal Shearing Patterns in Drift-ETG Turbulence
6 Ge Dong	Nonlinear saturation of KBM by zonal flow and nonlinear frequency change in drift wave turbulence
7 Ge Dong	Effects of magnetic islands on bootstrap current in toroidal plasmas
8 Simon Freethy	Validation of ion-scale GENE simulations in L-mode plasmas at ASDEX Upgrade using CECE measurements of electron temperature fluctuations
9 Xavier GARRET	Impact on transport of large scale poloidal convective cells driven by turbulence
10 Walter Guttenfelder	Transport and turbulence validation using NSTX and NSTX-U L-modes
11 Christopher Holland	Towards a better understanding of critical gradients and near-marginal turbulence in burning plasma conditions
12 Saeid Houshmandyar	Electron Temperature Gradient Scale Length Measurements at Alcator C-Mod: Critical Threshold and the Associated Temperature Fluctuations
13 Nathan Howard	Gyrokinetic Studies of Multi-Scale Heat Transport in ITER-Relevant, Alcator C-Mod Plasmas
14 Jiacong Li	Saturation of Intrinsic Axial Flow in a Straight Magnetic Field
15 Alberto Mariani	Characterization of the microturbulence regime in case of a TCV discharge showing toroidal rotation reversal
16 Rachael McDermott	Low-Z impurity particle transport experiments and intrinsic rotation studies using the new CXRS capabilities at ASDEX Upgrade
17 Soma Panta	Mechanisms to Control Internal Transport Barriers in Magnetically Confined Fusion Plasma Devices
18 Tariq Rafiq	Unstable Microtearing Modes in High Collisionality NSTX Discharge
19 John Rice	On the rostar Scaling of Intrinsic Rotation in C-Mod Plasmas with Edge Transport Barriers
20 Pablo Rodriguez Fernandez	New modeling approaches for cold-pulse and heat-pulse propagation experiments in Alcator C-Mod and DIII-D
21 Juan Ruiz Ruiz	A Synthetic Diagnostic for Studying Electron Scale Turbulence at NSTX and NSTX-U
22 Philip Schneider	Explaining the isotope effect on heat transport in L-mode with the collisional electron-ion energy exchange
23 Paul Terry	Parameter Scalings for ITG Turbulence Saturation
24 Kathreen Thome	Turbulence and Thermal and Fast-ion Transport in the Non-Inductive Hybrid Scenario
25 Garth Whelan	Nonlinear Electromagnetic Stabilization of ITG Turbulence and the Role of Zonal Flows
26 Clarisse Bourdelle	Quasilinear flux-driven gyrokinetic LOC-SOC transition
26 Huishan Cai	Influence of energetic ions on neoclassical tearing modes
28 Vinicius Duarte	Quasilinear relaxation formalism for energetic particle interaction with Alfvénic modes
29 Nikolai Gorelenkov	Critical gradient and resonance broadened quasi-linear models for fast ion profile relaxation in fusion plasmas
30 William Heidbrink	Interpretive modeling of fast-ion transport by Alfvén eigenmodes in a critical-gradient experiment
31 Kenneth Liao	Investigation of 3He emission in three-ion (3He) D-H ICRF heating experiments
32 Yaqi Liu	Nonlinear interactions of BAE and BAAE
33 Eli Parke	Measurement of beam-driven Alfvénic instabilities in MST and comparison to predictions
34 Mario Podesta	Fast ion transport by counter-propagating TAEs destabilized by off-axis co-NBI
35 Shawn Tang	Parametric investigation of compressional and global Alfvén eigenmode instability and effect on thermal confinement in NSTX-U
36 Jacobo Varela	Analysis of the Alfvén Eigenmodes stability in 3D configurations using a Landau-closure model
37 Jacobo Varela	Global gyrokinetic simulation of energetic particle-driven instabilities in stellarators
38 Ge Wang	Theory and Simulation of TAE avalanche
39 Yang Chen	Zonal Structure Effects on Nonlinear Evolution of Energetic Particle Driven Reverse Shear Alfvén Eigenmodes
40 Sheng He	Alfvén eigenmode stability and energetic particle transport using the TGLF model
41 Zhihong Lin	Nonlinear interactions of BAE and BAAE
42 Zhihong Lin	Re-distribution of Energetic Particle by NTM
43 Jon Kinsey	Development of a Fast Theory-Based Global Energy Confinement Predictor
44 M.Kotschenreuther	Pedestal energy and particle transport: basic gyrokinetic considerations
45 David Newman	Controlling the Cross-phase: A mechanism for the I-mode and other enhanced confinement regimes?
46 Alexei Pankin	Understanding and prediction of internal transport barriers in tokamaks using integrated modeling
47 Francesca Poli	The role of integrated modeling in discharge prediction and development of more robust algorithms for real time control
48 Zach Williams	Turbulence in Improved-Confinement Reversed-Field Pinch Discharges
49 Miklos Porkolab	Initial results on Measuring the Damping Rates of Alfvén Eigenmodes in JET with the Upgraded Active Alfvén Wave Diagnostic

Poster B Thursday April 27, 14:00-16:00

Author	Title
1 Jim Callen	Transport Effects Of 3D Fields In Tokamaks
2 Lang Cui	The Energy Confinement response of DIII-D plasmas to Resonant Magnetic Perturbations
3 Benjamin Faber	Gyrokinetic simulations of low-magnetic-shear stellarators in the limit of zero shear
4 Chris Hegna	Analytic theory of ITG turbulent saturation in stellarator plasmas
5 Zhihong Lin	GTC simulation ITG in LHD and W7-X stellarators
6 Yueqiang Liu	Plasma response to RMP fields and consequences on momentum transport during ELM control
7 George McKee	Dynamics of Pedestal Turbulence, ExB shear and zonal flow evolution during RMP application on DIII-D
8 Raffi Nazikian	RMP ELM Suppression in DIII-D; Recent Developments, Outstanding Issues and Implications for ITER
9 Dmitri Orlov	Testing Predictions of Core Transport Response to Resonant Magnetic Perturbations in DIII-D
10 Lei Shi	GTC Turbulence Simulations near H-mode Pedestal with Resonant Magnetic Perturbations
11 Liang Chen	Effect of grad-B drift on the H-mode power threshold in upper single null plasmas with ITER-like tungsten divertor on EAST
12 Chang-Bae Kim	Turbulence localization by zonal flow
13 Mikhail Malkov	L-H Transition Threshold Physics for Weakly Collisional Plasmas
14 Lothar Schmitz	Reynolds Stress and $j \times B$ Torque across the L-H Transition in H, D and He Plasmas
15 Zheng Yan	Turbulence and Sheared Flow Structures Behind the Isotopic and q_{95} Dependence of the L-H Power Threshold at DIII-D
16 ZHIBIN GUO	Fluctuation Bistability: A Mechanism for Avalanche and Heat Hysteresis in L-mode Plasmas
17 Arash Ashourvan	Validation of Turbulence-Neoclassical Intrinsic Rotation Theory at the Pedestal Top for DIII-D
18 Derek Bayer	ArBiTER studies of filamentary structures in the SOL of spherical tokamaks
19 Odd Erik Garcia	Intermittent plasma fluctuations in the Alcator C-Mod scrape-off layer in L- and H-modes
20 Ilon Joseph	Gyrokinetics and Quasineutrality in the Pedestal and Scrape-Off Layer
21 Ioannis Keramidias Charidakos	Turbulent flux measurement from XGC1 simulations and implications for the SOL width
22 Michael Leconte	Effect of GAM flow shear on the decoupling between particle and heat transport in I-mode
23 James Myra	Reduced kinetic neutral model for neutral-plasma interaction
24 David Russell	Modeling neutral-plasma interactions in scrape-off layer (SOLT) simulations
25 Filippo Scotti	Scrape-off layer and near-separatrix intermittent filaments in the NSTX and NSTX-U divertor
26 Audun Theodorsen	Stochastic modeling of SOL fluctuation probability distributions
27 Elizabeth Tolman	H-Mode Access and Pedestal Characteristics at High Magnetic Field in Alcator C-Mod Discharges
28 Ning Yan	Investigation of coherent fluctuations in between ELMs on EAST
29 Stewart Zweben	2-D turbulence cross-correlation functions in the edge of NSTX
30 Devon Battaglia	Bifurcation to Enhanced Performance H-mode on NSTX
31 Shaun Haskey	Differences between deuterium and impurity toroidal rotation profiles in the pedestal and steep gradient region on DIII-D
32 Jerry Hughes	Pathways to high edge pedestal pressure via high magnetic field
33 Arnold Kritz	Effect of Plasma Shaping on the H-mode Pedestal
34 Jeffrey Robertson	Turbulence and Transport in Multi-Ion Species Plasmas in the Large Plasma Device
35 Chris Rost	Study of the Role of Turbulence during ELMs using the Upgraded Phase Contrast Imaging on DIII-D
36 Philip Snyder	Physics of the Pedestal Structure and Emergence of the Super H-Mode Bifurcation
37 Huiqian Wang	Effects of divertor geometry on H-mode pedestal width scaling near divertor detachment in the DIII-D tokamak Simulation of
38 Yumin Wang	the density turbulence before L-H transition for different isotopic plasmas in DIII-D tokamak using BOUT++ Edge Rotational
39 Theresa Wilks	Shear Requirements for the Edge Harmonic Oscillation in DIII-D Quiescent H-mode Plasmas
40 Eric Bass	FluTES: A new code for linear benchmarking of fluid models
41 Kenneth Gentle	Particle Transport and Three-Field Fluctuations in Large-Amplitude Edge Turbulence
42 David Green	Integrated Core, Edge Pedestal, and Scrape-Off-Layer Modeling
43 Rima Hajjar	Modelling profile evolution in the CSDX linear plasma device
44 Rongjie Hong	The Edge Shear Flows and Particle Transport in Density Limit in the HL-2A Tokamak
45 Ding Li	Effect of strong magnetic field on the edge plasma transport
46 Saskia Mordijck	Role of Fueling on Pedestal and Scrape-Off Layer Density Profiles
47 Payam Vaezi	An Improved Approach to Uncertainty Quantification for Plasma Turbulence Validation Studies





LOWER
LEVEL

