

# TTF2018

23<sup>rd</sup> Joint EU-US Transport Task Force meeting

## Tuesday September 11

08:30 – 09:00	Registration	
09:00 – 09:20	Welcome	
<b>Plenary Session: Effect of isotope mass on transport and confinement</b> Chair: Ephrem Delabie		
09:20 – 09:55	Yann Camenen (25+10)	<b>Plenary:</b> Effect of isotope mass on transport and confinement: overview of theoretical interpretations and current status of modelling
09:55 – 10:30	Costanza Maggi (25+10)	<b>Plenary:</b> Effect of isotope mass on transport and confinement: overview of past observations and recent experiments
10:30 – 11:00	<b>Coffee Break</b>	
11:00 – 11:25	Laszlo Horvath (15+10)	Isotope effect of the H-mode pedestal in JET-ILW hydrogen and deuterium plasmas
11:25 – 11:50	Xingquan Wu (15+10)	Preliminary analysis of isotopic effect on edge instability for tokamak L-H transition
11:50 – 12:15	Michele Marin (15+10)	Isotope-mixing at JET: experiments and modelling
12:15 – 13:00	Discussion	
13:00 – 15:00	<b>Lunch</b>	
15:00 – 17:00	<b>Poster Session</b>	
Fundamental turbulence understanding		
16:30 – 17:00	<b>Coffee Break</b>	
<b>Oral Session: L-H transition physics and plasma operation close to the threshold and Pedestal physics</b> Chair: Antoine Merle		
17:00 – 17:25	Emilia R. Solano (15+10)	Power balance analysis at the L to H transition in JET-ILW
17:25 – 17:50	Shaun Haskey (15+10)	Main-ion and impurity rotation, temperature, and density evolution across the L-H transition on DIII-D
17:50 – 18:15	Andrea Garofalo (15+10)	Edge Transport and Quiescent H-mode Plasmas in DIII-D at Q=10 Equivalent Fusion Performance
18:15 – 19:00	Discussion	

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Wednesday September 12

## Plenary Session: Multi-channel core transport and integrated modeling

Chair: Chris Holland

09:00 – 09:45	Francis Casson (30+15)	<b>Plenary:</b> The challenge and reward of predictive multi-channel modelling
09:45 – 10:10	Pablo Rodriguez-Fernandez (15+10)	Modeling of Cold-Pulse Dynamics in Alcator C-Mod and DIII-D: A Local Turbulent Transport Approach
10:10 – 10:35	Ivan Calvo (15+10)	Neoclassical stellarator impurity flux driven by electrostatic potential variations on magnetic surfaces
10:35 – 11:05	<b>Coffee Break</b>	
11:05 – 11:30	Cecilia Bruhn (15+10)	Core boron transport studies using CXRS at ASDEX Upgrade
11:30 – 11:55	Alexander Creely (15+10)	Cross-Machine, Multi-Plasma Validation of TGLF on Alcator C-Mod and ASDEX Upgrade
11:55 – 12:20	Tuomas Tala (15+10)	Core Density Peaking Experiments in Various Operational Scenarios and with Different Isotopes in JET
12:20 – 13:00	Discussion	
13:00 – 15:00	<b>Lunch</b>	
15:00 – 17:00	<b>Poster Session</b>	
	Effect of isotope mass on transport and confinement	
	Multi-channel core transport and integrated modeling	
	3D, RMP and MHD turbulence interplay	
16:30 – 17:00	<b>Coffee Break</b>	
	<b>Oral Session: 3D, RMP and MHD turbulence interplay</b>	
	Chair: Arturo Alonso	
17:00 – 17:25	Henning Thomsen (15+10)	Survey of MHD activity in Wendelstein 7-X stellarator in the first divertor phase
17:25 – 17:50	George McKee (15+10)	Pedestal Turbulence Dynamics, and Response to Application of RMP
17:50 – 18:15	Garrard Conway (15+10)	Review of recent GAM - turbulence interaction studies on ASDEX Upgrade
18:15 – 18:40	Magali Muraglia (15+10)	Turbulence structures in Neoclassical Tearing Mode and Turbulent Driven Magnetic Island
18:40 – 19:00	Discussion	

20:30

Conference aperitif and dinner from 21:00

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Thursday September 13

## Plenary Session: Energetic particle transport and control techniques

Chair: Manuel Garcia-Muñoz

09:30 – 10:15	William Heidbrink (30+15)	<b>Plenary:</b> Phase-space dependence of fast-ion transport by Alfvén eigenmodes
10:15 – 10:40	David Zarzoso (15+10)	Particle transport induced by energetic geodesic acoustic modes
10:40 – 11:10	<b>Coffee Break</b>	
11:10 – 11:35	Lucia Sanchis-Sanchez (15+10)	Main parametric dependencies of Fast-Ion Edge Resonant Transport Layer induced by 3D perturbative fields in the ASDEX Upgrade Tokamak
11:35 – 12:00	Alessandro Di Siena (15+10)	New insights into fast ion induced turbulence stabilization
12:00 – 12:25	George Wilkie (15+10)	Transport-scale interaction of Alfvén eigenmodes and microturbulence
12:25 – 13:00	Discussion	
13:00 – 15:00	<b>Lunch</b>	
15:00 – 17:00	<b>Poster Session</b>	
	Energetic particle transport and control techniques	
	Towards plasma exhaust predictions for ITER and beyond	
	L-H transition physics and plasma operation close to the threshold and Pedestal physics	
16:30 – 17:00	<b>Coffee Break</b>	
	<b>Oral Session: Fundamental turbulence understanding</b>	
	Chair: Rachael McDermott	
17:00 – 17:25	Hogun Jhang (15+10)	Impact of ion parallel flow dynamics on the radial zonal flow pattern formation
17:25 – 17:50	Markus Held (15+10)	Non-Oberbeck-Boussinesq zonal flow generation
17:50 – 18:15	Laure Vermare (15+10)	Poloidal asymmetry of plasma flow in Tore Supra tokamak
18:15 – 18:45	Discussion	
18:45 – 19:00	Presentation of the candidates for TTF vice chair (2 years) then chair from 2020 (2 more years)	

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Friday September 14

## Plenary Session: Towards plasma exhaust predictions for ITER and beyond

Chair: Fulvio Militello

<b>09:00 – 09:45</b>	Federico Halpern (30+15)	<b>Plenary:</b> Overview of theoretical and experimental results on SOL profiles and transport
<b>09:45 – 10:10</b>	C-S Chang (15+10)	Gyrokinetic understanding of the fundamental physics behind the divertor heat-flux width and the SOL plasma behavior
<b>10:10 – 10:35</b>	Yanick Sarazin (15+10)	Impact of SOL-like boundary on flux driven gyrokinetic simulations
<b>10:35 – 10:45</b>	All EU affiliated participants elect their next vice-chair	
<b>10:45 – 11:15</b>	<b>Coffee Break</b>	
<b>11:15 – 11:20</b>	Election Results	
<b>11:20 – 11:45</b>	Tom Farley (15+10)	Dependence of Scrape-off Layer Filament Properties on Machine Parameters as Interpreted using Visual Camera Data
<b>11:45 – 12:45</b>	Discussion	
<b>12:45 – 13:00</b>	Closing words & Wrap up	