

# 33rd ITPA meeting of TG SOL and divertor physics, ORNL, OakRidge, USA 6–9.6.2023

<b>Website</b>	<a href="https://divsol2023.ornl.gov/">https://divsol2023.ornl.gov/</a>					
<b>SharePoint</b>	<a href="https://sharepoint.iter.org/departments/POP/ITPA/SD/SD/_layouts/15/guestaccess.aspx?guestaccess_token=ogIHC1M6OAw2Cxa%2bRtCkwuGDzqshLMW7CBI3d%2b23LM%3d&amp;folderid=2_1d2d603a85cb4495995f01e6fa19f88da&amp;rev=1">https://sharepoint.iter.org/departments/POP/ITPA/SD/SD/_layouts/15/guestaccess.aspx?guestaccess_token=ogIHC1M6OAw2Cxa%2bRtCkwuGDzqshLMW7CBI3d%2b23LM%3d&amp;folderid=2_1d2d603a85cb4495995f01e6fa19f88da&amp;rev=1</a>					
<b>Tuesday 6 June</b>						
		<b>Start time</b>	<b>Duration</b>	<b>Discussion</b>	<b>Speaker</b>	<b>Topic/title</b>
	<b>Bus</b>	<b>7:00</b>				From Embassy Suites by Hilton Knoxville Downtown
	<b>Arrive at ORNL</b>	<b>7:45</b>				
	<b>Badging</b>	<b>8:00</b>	<b>0:30</b>			
	<b>Breakfast</b>	<b>8:30</b>	<b>0:30</b>			
<b>Welcome address and organisational issues</b>						
		9:00	0:10		T. Nakano/J. Rapp	Opening remarks/Logistics
<b>Special session: ITER rebaseline and new DSOLs</b> <b>Chair: T. Nakano</b>						
		9:10	0:30	0:15	T. Wauters	ITER rebaseline
<b>DSOL-46 Charge-Exchange neutral-induced first wall erosion</b> <b>Chair: T. Wauters</b>						
		9:55	0:05	0:00	R. Ding	Introduction
		10:00	0:15	0:05	R. Ding	Updates on neutral-induced material erosion studies in EAST
	<b>Coffee</b>	<b>10:20</b>	<b>0:25</b>			
		10:45	0:15	0:05	S. Wiesen	Detailed charge exchange neutral distribution modelling for the ITER main wall
		11:05	0:15	0:05	J. Nichols	Plans for a far SOL toroidal limiters set on DIII-D and implications for main-chamber PWI research
		11:25	0:15	0:05	S. Rode	Multi-staged ERO2.0 simulation of material erosion and deposition in recessed ITER mirror assemblies
		11:45	0:15	0:05	A. Gorjaev	Characterisation of charge exchange neutrals in TOMAS RF plasmas
	<b>Lunch</b>	<b>12:05</b>	<b>0:55</b>			
		13:00		<b>0:30</b>		<b>Discussion</b>
<b>DSOL-44 End-of-lifetime criteria for divertor PFCs</b> <b>Chair: J. Coenen, E. Tsitrone</b>						
		13:30	0:20	0:10	J. Coenen	Introduction
		14:00	0:15	0:05	M. Richou	Evolution of pre-damaged W monoblocks in tokamak conditions : exposure in WEST phase 1 and phase 2, modelling and future plans
		14:20	0:15	0:05	M. Wirtz	Pre-damaging W monoblocks in JUDITH 2
		14:40	0:15	0:05	D. Zhu	Performance of W/Cu monoblocks with pre-damaged surface under steady-state heat load in EAST experiment
		15:00	0:15	0:05	T. Morgan	Influence of slow transient-like plasma loading on tungsten monoblocks in Magnum-PSI
	<b>Coffee</b>	<b>15:20</b>	<b>0:25</b>			
		<b>15:45</b>		<b>0:30</b>		<b>Discussion</b>
<b>DSOL-34: Far-SOL fluxes and their link to detachment</b> <b>Chair: N. Vianello</b>						
		16:15	0:05	0:00	N. Vianello	Introduction
		16:20	0:15	0:05	R. Ding	High density H-mode in EAST
		16:40	0:15	0:05	D. Mancini	GBS simulations of detachment state in L-mode
		17:00	0:15	0:05	S. Zamperini	Interpretation of far-SOL decay lengths with time-averaged blob velocities and neutrals
		<b>17:20</b>		<b>0:25</b>		<b>Discussion</b>
	<b>Adjourn</b>	<b>17:45</b>				bus ride 45 min back to Embassy Suites by Hilton Knoxville Downtown
<b>Wednesday 7 June</b>						
		<b>Start time</b>	<b>Duration</b>	<b>Discussion</b>	<b>Speaker</b>	<b>Topic/title</b>
	<b>Bus</b>	<b>7:00</b>				From Embassy Suites by Hilton Knoxville Downtown
	<b>Breakfast</b>	<b>8:00</b>	<b>0:30</b>			
<b>DSOL-33 He operations in devices with metallic PFCs</b> <b>Chair: K. Krieger</b>						
		8:30	0:10	0:05	S. Brezinsek	Introduction
		8:45	0:15	0:05	K. Krieger	W-fuzz evolution studies in ASDEX Upgrade He discharges
		9:05	0:15	0:05	G. Alberti	Further progress about W-He interaction modelling in ASDEX-Upgrade
		9:25	0:15	0:05	S. Brezinsek	Update on JET W-He interaction experiment focus W sputtering
	<b>Coffee</b>	<b>9:45</b>	<b>0:30</b>			
		10:15	0:15	0:05	M. Groth	JET W-He modelling
		10:35	0:15	0:05	E. Tsitrone	Update on WEST W-He interaction experiment
		10:55	0:15	0:05	A. Lasa	First stage of time-dependent plasma and material model integration to address dynamic recycling in divertor
		11:15		<b>0:45</b>		<b>Discussion</b>
	<b>Lunch</b>	<b>12:00</b>	<b>1:00</b>			
<b>DSOL-43 Detachment control</b> <b>Chair: S. Wiesen</b>						
		13:00	0:05	0:00	D. Eldon	Introduction
		13:05	0:15	0:05	T. Ravensbergen	Detachment control developments on JET in support of ITER
		13:25	0:15	0:05	N. Fedorczak	Active control of X-point radiator regime in WEST with nitrogen seeding
		13:45	0:15	0:05	B.Kool	Preparation for exhaust control in MAST-U
		<b>14:05</b>		<b>0:30</b>		<b>Discussion</b>
	<b>Coffee</b>	<b>14:35</b>	<b>0:30</b>			
<b>DSOL-37 Effects of 3-D fields on divertor conditions and PWI</b> <b>Chair: M. Jakubowski/M Jia</b>						
		15:05	0:05	0:00	M. Jakubowski	Introduction

		15:10	0:15	0:05	M. Jia	Divertor stationary heat flux control during RMP ELM suppression in EAST
		15:30	0:15	0:05	Q. Hu	Integration of RMP ELM suppression with divertor detachment in the DIII-D tokamak
		15:50	0:15	0:05	D. Ryan	Initial progress of RMP ELM control experiments on MAST-U
		16:10	0:15	0:05	J. van Blaricum	Comparison of divertor heat loads and access to detachment for n=3 and n=4 toroidal mode RMP scenarios in the ITER Pre-Fusion Power Operation Configuration
		16:30	0:15	0:05	X. Navarro Gonzales	Updated on ERO2.0 modeling with RMPs
		<b>16:50</b>		<b>0:45</b>		<b>Discussion</b>
	<b>Adjourn</b>	<b>17:35</b>				bus ride 45 min back to Embassy Suites by Hilton Knoxville Downtown
<b>Thursday 8 June</b>						
		<b>Start time</b>	<b>Duration</b>	<b>Discussion</b>	<b>Speaker</b>	<b>Topic/title</b>
	<b>Bus</b>	<b>7:00</b>				From Embassy Suites by Hilton Knoxville Downtown
	<b>Breakfast</b>	<b>8:00</b>	<b>0:30</b>			
<b>DSOL-41 Detachment Phys</b>			<b>Chair: S. Wiesen</b>			
		8:30	0:05	0:00	S. Wiesen	Introduction
		8:35	0:15	0:05	F. Scotti	Update on DIII-D seeding experiments / modelling
		8:55	0:15	0:05	M. Groth	SOL conditions in JET-ILW H, D, T and DT L-mode plasmas
		9:15	0:15	0:05	A. McLean	EDGE2D-EIRENE validation of detached plasmas in DIII-D using Divertor Thomson Scattering
		9:35	0:20	0:05	Ch. Theiler	Update on recent detachment studies on TCV
		10:00	0:10	0:05	N. Fedorczak	Bifurcation to an X-point radiator regime in WEST with nitrogen seeding
	<b>Coffee break</b>	<b>10:15</b>	<b>0:30</b>			
		10:45	0:15	0:05	H. Shin	Experimental studies of argon-seeded detachment during RMP-induced ELM control in KSTAR
		11:05	0:15	0:05	J. Liu	Effects of divertor geometry on divertor detachment with new lower tungsten divertor in EAST
		11:25	0:15	0:05	V. Rozhansky	First results on DT modeling for JET with SOLPS-ITER code
		11:45	0:15	0:05	D. Borodin	Improved Collisional-radiative models in the EIRENE-NGM neutral transport solver
	<b>Lunch</b>	<b>12:05</b>	<b>1:00</b>			
		13:05	0:15	0:05	P. Snyder	Self-consistent model of ped/SOL/divertor with EPED and SOLPS
		13:25	0:15	0:05	T. Luda	IMEP integrated modelling, Update Cmod / ITER
		13:45	0:15	0:05	S. Dasbach	Neural Network based SOL models, towards fast SOLPS-ITER surrogates
		14:05	0:15	0:05	M. Umansky	Boundary turbulence modelling for PMI
		14:25	0:15	0:05	M. van Berkel	A predictive control oriented exhaust model based on dynamic measurements and SOLPS-ITER
		14:45	0:15	0:05	J. Lore	Time-dependent modelling with SOLPS-ITER / ITER simulations
	<b>Coffee break</b>	<b>15:05</b>	<b>0:30</b>			
		<b>15:35</b>		<b>0:50</b>		<b>Discussion</b>
<b>General session</b>			<b>Chair: J. Rapp</b>			
		16:25	0:10	0:00	K. Krieger	NF special issue
		16:35	0:15	0:05	J. Park	Feasibility of raised inner strike point equilibria scenario in ITER for detritiation from beryllium co-deposits
		16:55	0:15	0:05	S. Krat	Analytical description of hydrogen retention in co-deposits and isotope effects
		17:15	0:15	0:05	E. Tsitrone	High fluence experiments on WEST
	<b>Adjourn</b>	<b>17:35</b>				bus ride 45 min back to Embassy Suites by Hilton Knoxville Downtown
	<b>Dinner</b>	<b>18:30</b>				Hyatt Place Knoxville / Downtown
<b>Friday 9 June</b>						
		<b>Start time</b>	<b>Duration</b>	<b>Discussion</b>	<b>Speaker</b>	<b>Topic/title</b>
	<b>Bus</b>	<b>7:00</b>				From Embassy Suites by Hilton Knoxville Downtown
	<b>Breakfast</b>	<b>8:00</b>	<b>0:30</b>			
<b>DSOL-39 Transient induced melting during transients</b>			<b>Chair: K. Krieger</b>			
		8:30	0:05	0:00	R. Pitts	Introduction
		8:35	0:15	0:05	K. Paschalidis	Controlled low-Z melting experiment in DIII-D: analysis and modeling updates
		8:55	0:15	0:05	E. Hollmann	Progress on MDC-DSOL-1: Characterization of power deposition on PFCs by runaway electrons
		9:15	0:15	0:05	T. Rizzi	GEANT4 modelling of RE-induced damage in the carbon sample exposed in DIII-D
		9:35	0:15	0:05	M. Beidler	KORC Modeling of RE Beam Impact on DIII-D DIMES
		<b>9:55</b>		<b>0:45</b>		<b>Discussion</b>
	<b>Coffee break</b>	<b>10:40</b>	<b>0:30</b>			
<b>Special session: ITER rebaseline and new DSOLs</b>			<b>Chair: T. Wauters</b>			
		<b>11:10</b>		<b>0:45</b>		<b>Discussion</b>
<b>Next ITPA and Closing</b>			<b>Chair: T. Nakano</b>			
		11:55	0:10		T. Nakano	Next ITPA
		12:05	0:05		T. Nakano	Closing
	<b>Lunch</b>	<b>12:10</b>	<b>1:00</b>			
	<b>Bus</b>	<b>13:30</b>				To Airport and then to Embassy Suites by Hilton Knoxville Downtown