27th ITPA meeting of TG SOL and divertor physics, IPP, Garching, Germany, 02.07.-05.07.2019

All sessions will be at IPP, Building L6, ASDEX Upgrade Seminar Room							**Legend: Plasma Physics, Materials, Modelling**
Tuesday 02 July							
			Start time	**Duration**	**Discussion**	**Speaker**	**Topic/title**
			08:30	00:30			Registration
		Welcome address and organisational issues					**K. Krieger**
			09:00	00:15			
Session	**1**	**Material solutions for the 2nd ITER divertor**					**Chair: J.W. Coenen**
			09:15	00:15	00:00	J.W. Coenen	Introduction
			09:30	00:15	00:05	G. de Temmerman	Pre-requisites for a 2nd ITER divertor based on lessons learned from the first
			09:50	00:15	00:05	A. von Müller	W-Cu Composites - status of industrial up scaling
		Coffee Break	**10:10**	**00:30**			
			10:40	00:15	00:05	M. Tokitani	W/Cu alloy component with an advanced brazing technique
			11:00	00:15	00:05	Q. Li	R&D results on ASIPP W/Cu flat-tile concept
			11:20	00:15	00:05	R. Neu	Tungsten heavy alloys as ductile alternative to pure tungsten
			11:40	00:15	00:05	C. Henager	Ductile-phase toughened tungsten for plasma-facing materials in fusion reactors
		Lunch	**12:00**	**01:10**			
			13:10	00:15	00:05	S. van den Kerkhof	FEM optimisation of monoblocks for heat exhaust
			13:30	00:15	00:05	Y. Lian for X. Liu	Materials development relevant to ITER
			13:50	00:15	00:05	Y. Ueda	Influence of neutron-irradiation at ITER relevant levels on tungsten
			14:10		**01:10**		**Discussion**
		Coffee Break	**15:20**	**00:30**			
Session	**2**	**ITER R&D session**					**Chair: K. Krieger**
			15:50	00:15	00:05	G. de Temmerman	Hot cell analysis station for ITER
			16:10	00:10	00:00	K. Krieger	Status of ITER Updated Physics Base after ITPA CC Meeting
			16:20	00:20	00:00	R.A. Pitts	ITPA TG priorities in light of ITER research plan
			16:40	00:10	00:00	K. Krieger	Review of currently active DSOL tasks and plans for new tasks
			16:50		**00:40**		**Discussion**
		Adjourn	**17:30**				
Wednesday 03 July							
			Start time	**Duration**	**Discussion**	**Speaker**	**Topic/title**
Session	**3**	**DSOL 32/41 – Detachment physics & control incl comparison N2 vs Ne seeding**					**Chair: S. Wiesen**
			09:00	00:05	00:00	S. Wiesen	Introduction
			09:05	00:15	00:05	V. Rozhansky	JET SOLPS-ITER modelling progress.
			09:25	00:15	00:05	F. Reimold	1D model plus results on N vs Ne impurity transport.
			09:45	00:10	00:05	S. Wiesen	SOLPS-ITER modelling of JET & AUG H-mode discharges
		Coffee Break	**10:00**	**00:30**			
			10:30	00:15	00:05	F. Hitzler	Parallel impurity transport and divertor retention in Ar and N seeded SOLPS 5.0 simulations for AUG
			10:50	00:15	00:05	A. Leonard	Modelling from DIII-D
			11:10	00:15	00:05	Z. Yang	Experiments and simulations on Ne seeding in EAST
			11:30	00:15	00:05	A. Pshenov	The role of opacity in divertor plasma detachment (SOLPS simulations)
		Lunch	**11:50**	**01:00**			
			12:50	00:15	00:05	D. Moulton	Estimate radiated fractions using SOLPS-ITER solutions for ITER
			13:10	00:15	00:05	K. Verhaegh	The role of molecular reactions on power particle and momentum balance during detachment in TCV
			13:30		**01:10**		**Discussion**
Session	**4**	**Hydrogen transport in plasma facing materials**					**Chair: K. Schmid**
			14:40	00:15	00:05	Y. Ferro	Thermodynamic model of H/D on W surfaces from DFT
			15:00	00:15	00:05	J. Mougenot	Comparison of 3D vs. 1D diffusion trapping modeling
			15:20	00:15	00:05	S. Masuzaki for Y. Hatano	Tritium retention in divertor tiles and Be tiles
		Coffee Break	**15:40**	**00:30**			
			16:10	00:15	00:05	A. Zaloznik	Modeling the sharp TDS release peak from Be/D co-deposits
			16:30	00:15	00:05	J. Bauer	Influence of He on D-retention in W
			16:50	00:15	00:05	Y. Gasparyan	D retention under plasma heat load relevant to ITER transient plasma events
			17:10		**00:45**		**Discussion**
		Adjourn	**17:55**				

Thursday 04 July							
			Start time	**Duration**	**Discussion**	**Speaker**	**Topic/title**
Session	**5**	**DSOL 36/39/42 – Tungsten damage and its influence on plasma operation**					**Chair: G. de Temmerman**
			09:00	00:15	00:05	S. Ratynskaia	Update on tungsten melt modelling
			09:20	00:15	00:05	R.A. Pitts for J. Coburn	ITER Be first wall melt damage under VDE current quench loads
			09:40	00:15	00:05	Y. Ueda for K. Ibano	Vapour shielding modelling/experiment
			10:00	00:15	00:05	E. Tsitrone	WEST PFU analysis - damage observed after first exposures
		Coffee Break	**10:20**	**00:30**			
			10:50	00:15	00:05	S. Masuzaki for M. Tokitani	JET W lamella microstructure analysis and retention
			11:10	00:15	00:05	R. Ding	W PFC damage in EAST Upper Divertor
			11:30		**00:45**		**Discussion**
		Lunch	**12:15**	**01:15**			
Session	**6**	**DSOL 34 – Far-SOL fluxes and their link to detachment**					**Chair: D. Carralero**
			13:30	00:15	00:05	D. Carralero	Current status of DSOL-34
			13:50	00:15	00:05	N. Vianello	Recent results from MST1 studies on AUG and TCV comparison
			14:10	00:15	00:05	T. Tokuzawa	Observation of turbulence response from attached to detached phases in LHD
			14:30	00:15	00:05	M. Agostini	Neutral density estimation and evolution in the ASDEX Upgrade divertor in high density regime
			14:50	00:15	00:05	B. Tal	Comparison of the SOL density shoulder at AUG and JET
		Coffee Break	**15:10**	**00:30**			
			15:40		**00:45**		**Discussion**
		Adjourn	**16:25**				
			19:00				**Workshop Dinner**
Friday 05 July							
			Start time	**Duration**	**Discussion**	**Speaker**	**Topic/title**
Session	**7**	**DSOL 37 – Effects of 3D fields on divertor conditions and PWI**					**Chair: H. Frerichs**
			09:00	00:15	00:05	H. Frerichs for O. Schmitz	Update on status and activities in DSOL37
			09:20	00:15	00:05	H. Frerichs	Overview and status of 3D detachment modeling with EMC3-EIRENE and development of 2-point model in 3D geometry
			09:40	00:15	00:05	T. Lunt	EMC3-EIRENE modelling of detachment and connection to density shoulder
			10:00	00:15	00:05	F. Schluck	Update on EMC3-EIRENE kinetic ion transport
		Coffee Break	**10:20**	**00:30**			Booking of taxi connections
			10:50	00:15	00:05	J.H. Nichols	New developments in DIVIMP (drifts)
			11:10		**00:40**		**Discussion**
			11:50	00:00	00:10	K. Krieger	Announcement of next meeting and adjourn
		Adjourn	**12:00**				