22nd EFPW PROGRAMME

Operational limits: what do we know / what can we hope from plasma physics & fusion technology

SUNDAY 30 NOVEMBER

16:00 18:00	Registration	
19:30	Welcome reception (details on page 7)	

MONDAY 1 DECEMBER

8:30	Welcome	
	Core plasma operational limits	
8:40	Introduction	I. Chapman (CCFE)
8:50	How DEMO plasmas will be different to present day tokamak plasmas	R. Kemp (CCFE)
9:20	Constraints set by burning plasma physics	Ph. Lauber (IPP)
9:50	The operational limits of achieving necessary pedestal confinement	M. Beurskens (CCFE)
10:20	Coffee	
10:50	Operational limits from core pressure and profile tailoring	I. Garcia (CEA)
11:20	Operational limits set by heating and current drive actuators	E. Surrey (CCFE)
11:50	Discussion	
12:45	Lunch	

Operational limits due to materials and disruptions		
14:00	Introduction	I.W. Coenen (FZJ)
14:20	Constraints due to neutron irradiation	A. Moeslang (KIT)
14:50	Control of impurities	Th. Puetterich (IPP)
15:15	Coffee	
15:45	Constraints due to disruptions: understanding disruption causes and achieving acceptable disruption rates	P. de Vries (IO)
16:10	Mitigating disruptions and runaways to acceptable material limits	R. Koslowski (FZJ)
16:40	Discussion	
18:00	End	

TUESDAY 2 DECEMBER

Operational limits due to exhaust		
8:30	Introduction	K. Krieger (IPP)
8:40	First wall flux distribution in DEMO size devices	D. Carralero (IPP)
9:10	ELM control options and their effect on confinement and W flushing	E. de la Luna (CIEMAT)
9:35	Heat flux impact to target & 1st wall in plasmas with mitigated ELMs	B. Sieglin (IPP)
10:00	Coffee	

10:30	Degradation of W armour due to periodic power excursions	M. Wirtz (FZJ)
10:55	Impact of He on divertor surfaces	H. Maier (IPP)
11:20	Alternative magnetic configurations for improved divertor exhaust	B. Lipschultz (U York)
11:45	Discussion	
12:45	Lunch	
	Performance limits of PFC technologies	
14:00	Introduction	Ch.Bachmann (PMU)
14:10	First wall thermo-hydraulic layout - need of reliable heat load specifications	L. Boccacini (KIT)
14:40	First wall and limiter PFCs in DEMO	F. Arbeiter (KIT)
15:10	Coffee	
15:40	Divertor PFC concepts considered in the DEMO divertor project	J.-H. You (IPP)
16:05	Limitations of transient power loads on DEMO divertor and analysis of mitigation techniques	F. Maviglia (PMU)
16:35	Tritium breeding ratio requirements and limitations in DEMO	P. Pereslavtsev (KIT)
17:00	Discussion	
18:20	End	
20:00	Gala Dinner (details on page 9)	

WEDNESDAY 3 DECEMBER

Integrated scenarios incorporating all operational limits

8:30	Introduction	I. Nunes (IST)
8:40	Progress on preparation of the ITER baseline scenario	A. Sips (EC)
9:10	Control of integrated scenarios within operational limits	F. Rimini (CCFE)
9:40	Integrated scenarios with radiative cooling	F. Reimold (IPP)
10:10	Coffee	
10:40	How to extrapolate present scenarios to DEMO	R. Wenninger (PMU)
11:10	Discussion	
11:30	Adjourn	
12:45	Lunch	