

# Agenda for Boundary Physics ET, Breakout Sessions III & IV

Thursday, September 12, 2002, Director's Conf. Room



## NSTX Research Forum, Boundary Physics ET, Breakout Sessions III & IV

- 0830-0840 • Heat flux and particle flux scaling vs. heating power, density, and plasma current in NSTX - R. Maingi
- 0840-0900 • Effect of grad-B drift direction on edge and divertor properties- R. Maingi
- 0900-0910 • Edge turbulence control via wall biasing or edge fueling - S. Zweben
- 0910-0920 • Divertor regimes for advanced NSTX plasmas - V. Soukhanovskii
- 0920-0930 • Edge transport asymmetries (in-out sol and divertor)  
(magnetic configuration and plasma parameter scan) - V.Soukhanovskii
- 0930-0940 • Development of mitigation scenarios for neon GDC - V. Soukhanovskii
- 0940-1000 • Plasma fueling using lower dome gas injector (pre-requisite to divertor regimes XP) - V. Soukhanovskii
- 1000-1010 • ALIST liquid surface module and NSTX boundary physics research - R. Kaita
- 1010-1020 • Boron and Lithium pellet injection - H. Kugel

# Agenda for Boundary Physics ET, Breakout Sessions III & IV (Cont)

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- 1020-1030 • TMB Fuelling for conditioning plasma surfaces & establishing low-z mantle - H. Kugel
- 1030-1040 • Pellet fueling scoping studies for NSTX - L. Baylor
- 1040-1100 • Quartz crystal deposition monitor experiments - C. Skinner
- 1100-1110 • Assessment of helium conditioning on confinement -C. Skinner
- 1120-1130 • Scanning of strike-point for flush-mounted Langmuir Probe characterization - C. Bush
- 1130-1140 • Establishing H-modes in NSTX with highly conditioned walls & low neutral influx - C. Bush
- 1140-1200 • Role of edge temperature ( $T_e$  and  $T_i$ ) in H-mode access - C. Bush
- 1200-1210 • Study of MARFES in the NSTX main chamber - C. Bush
- 1210-1220 • Development of improved analysis of non-local electron parallel heat transport in the NSTX divertor plasma - J.P. Matte,(INRS)
- 1220-1230 • Fast transport in NSTX / Spherical Torus Scape-Off-Layer - A. Pigarov
- 1230-1240 • Characterization of edge neutral pressures in NSTX ohmic & CHI discharges - R. Raman
- 1240-1300 • Characterization of the boundary layer and power flow to the divertor, XP 217, rev 2 - S. Paul
- 1300-1315 • Discussion

# Reference Summary Table



ET-Boundary Physics Session Summary November 2001

XP (Topic)	Req.d Diag.s	Number of Days	When Ready to go	How Many Conditions (Ohmic,NBI, RF, P.B)	Any Time Filler XP	Deliverables
R. Maingi (Heat Flux)	Prefer F.P.	3-Day Grp Characteriza tion XP (2-3 days)	3/1/02	Ohmic, NBI CSL, LSN, DN P.B.	YES	FY-03 Milestone
J. Boedo (Fast Probe)	All	3-Day Grp Characteriza tion XP (2)	3/1/02	Ohmic, NBI, RF	YES	Edge Characterization
S. Zweben (Edge Biasing)	A/W.F.P.	1 (+He)	2/1/02	Ohmic/CHI	NO	Edge Control Investigation
E. E. Mukhin (Edge Turbulence)		PiggyBack			YES	Turbulence Diag. Planning
H. Kugel (TMB Fueling)	TBD	1	Feb/Mar	Ohmic, NBI CSL, LSN	Between Boronizations	B-Redeposition Low-Z mantle
V. Soukhanovskii (Core Fueling)	F.P.	3-Day Grp Characteriza tion XP +1	3/1/02	TBD	YES	Fueling Characterization
V. Soukhanovskii (Gas Beam Injector)		PiggyBack			YES	Fueling Technique
L. Baylor (Fueling DIID/NSTX)		PiggyBack Fueling XP			YES	Advance Fueling Planning
R. Raman (CT Fueling)		PiggyBackFu eling XP			YES	Advance Fueling Planning
S. Paul (Divertor Bolometry)	A/W.F.P.	3-Day Grp Characteriza tion XP (2)	3/1/02			Divertor Characterization
C. Skinner (Effect of Bakeout)	All	1	1/15/02	Pre/Post B	NO	Wall Conditions
C. Skinner (Deposition Meas)		PiggyBack	Feb/Mar	PiggyBack	YES	B Film Thickness

Original Request ( )

