MHD Parallel Session AGENDA

NSTX 5 Year Plan Ideas Forum – June 24-26, 2002

Session 3.1: Long Term Program Needs and Implications **Monday, June 24, 1:30 – 3:15**

(talk+discussion (mins))

1:30-1:45 (10+5) "Establishing the science for meeting 5 and 10 year MHD goals", S. Sabbagh
1:45-2:00 (10+5) "Operational and control capabilities for NSTX in the near and long term", D. Gates
2:00-2:15 (10+5) "Stability considerations for optimizing ST geometry", J. Menard
2:15-2:30 (10+5) "Cross-cutting MHD boundary physics issues for the near and long term", R. Maingi
2:30-3:15 (45) DISCUSSION

Session 4.1: Physics Goals, Measurement, and Theory Needs **3:35 – 5:30**

(talk+discussion (mins))

3:35-3:50 (10+5) "Measurement / theory advances needed for long range goals", J. Menard
3:50-4:05 (10+5) "Equilibrium with rotation" R. Betti
4:05-4:25 (15+5) "Ion temperature and rotation measurements", R. Bell
4:25-4:45 (15+5) "Motional Stark Effect diagnostic", F. Levinton
4:45-5:00 (10+5) "Expanding present between-shots equilibrium and stability capabilities", S. Sabbagh
5:00-5:30 (30) DISCUSSION

Session 5.1: Global Mode Stabilization (including RWM) **Tuesday, June 25, 8:30 – 10:15**

(talk+discussion (mins))

8:30-8:45 (10+5) "GMS sensors and control systems", J. Menard
8:45-9:05 (15+5) "1-D and 2-D USXR for MHD modes and equilibrium", D. Stutman
9:05-9:15 (5+5) "Key issues in planning a mode control program in NSTX", G. Navratil
9:15-9:30 (10+5) "GMS present and future physics studies", S. Sabbagh
9:30-9:45 (10+5) "Use of PF4 for MHD studies", S. Kaye
9:45-10:00 (10+5) "RWM theory development", A. Boozer
10:00-10:15 (15) DISCUSSION

Session 6.1: Resistive MHD (including EBW and NTM) **10:35 – 12:15**

(talk+discussion (mins))

10:35-10:50 (10+5) "Research plans using M3D", W. Park
10:50-11:05 (10+5) "EBW CD for TM & NTM control", G. Taylor
11:05-11:20 (10+5) "Delta-prime calculations for TM theory", A. Pletzer
11:20-11:30 (5+5) "Infrastructure for between-shots δW", S. Sabbagh
11:30-11:45 (10+5) "GEM X-ray imaging", D. Pacella
11:45-11:55 (5+5) "X-ray Camera", B. Stratton (presented by J. Menard)
11:55-12:10 (10+5) "Internal fluctuation and field diagnostics", T. Peebles
12:10-12:15 (5) DISCUSSION

Session 7.2: Transport/MHD/Boundary Combined Session **1:30 – 3:15**

(talk+discussion (mins))

1:30-1:50 (15+5) "Pedestal Physics", R. Groebner
1:50-2:00 (5+5) "Edge Gradient Stability", S. Kaye
2:00-2:10 (5+5) "SXR Pedestal Diagnostic", V. Soukhanovskii
2:10-2:20 (5+5) "ELM Studies", C. Bush
2:20-2:35 (10+5) "ELM Stability" P. Snyder
2:35-2:45 (5+5) "High Performance Benefits/Drawbacks of L- and H-mode edge plasmas M. Bell
2:45-3:15 (30) DISCUSSION

Session 7.3: Fast Particle MHD (including TAE, CAE) and Astrophysics **1:30 – 3:15**

(talk+discussion (mins))

1:30-1:50 (15+5)	"Fast particle theory – status and future plans",	N. Gorelenkov
1:50-2:10 (15+5)	"TAE Experiments and Diagnostics",	B. Heidbrink
2:10-2:25 (10+5)	"Long-term Mirnov array upgrade plans",	J. Menard
2:25-2:40 (10+5)	"Study of Physics Issues Related to Astrophysics in NSTX",	H. Ji
2:40-3:15 (35)	DISCUSSION	