

The 2009 NSTX Results / Theory Review - Macroscopic Stability TSG Agenda – **DRAFT V1.6**

Author	Proposal Title	XP	ITPA
Park	Error Field Threshold Study in high-beta plasmas	XP903	MDC-2(.2)
Gerhardt	Continued Search for the n=3 EF Source in NSTX	XP902	MDC-2 (EFC)
Sabbagh	Improving $\langle\beta_N\rangle$ pulse vs. rotation under RWM Feedback	XP934	MDC-2, MDC-17
Berkery	Influence of fast particles in Resistive Wall Mode Stabilization	XP932	MDC-2
Delgado-Aparicio	Effect of RWM Stabilization on Background Plasma	XP931	MDC-2
Sabbagh	Search for multiple RWM behavior at high β_N	XP935	MDC-2(.2)
Bialek	RWM stability calculations using VALEN with multiple modes		MDC-2
Zakharov	Understanding disruptions in tokamaks		MDC-2, MDC-15
Gerhardt	Disruption Mitigation in NSTX using CHI	XP901	MDC-1
Gerhardt	Halo current results from the NSTX 2009 Run Campaign		MDC-15
Sabbagh	NTV physics at varied $v_i^*/q\omega_E$ and search for offset rotation	XP933	MDC-12
Chance	VACUUM Greens function upgrade for PEST		MDC-2
Chance (for Manickam)	New PEST results for NSTX		MDC-2
Volpe	Effects of Impurities and Wall Conditioning on NTM Stability	XP918	MDC-14
LaHaye	NSTX/DIII-D Aspect Ratio Comparison of 2/1 NTM Physics	XP914	MDC-4, MDC-14
Buttery	Error field influence on 2/1 NTM onset through rotation	XP915	MDC-4, MDC-14
Breslau	Resistive MHD analysis of NSTX with the M3D-C1 code		MDC-4, MDC-14

ITPA joint research / analysis / experiments (from above list, etc.):

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- MDC-1: Disruption mitigation by massive gas jets
- MDC-2: Joint experiments on resistive wall mode physics
- MDC-4: NTM Physics – aspect ratio comparison
- MDC-12: Non-resonant magnetic braking
- MDC-13: Vertical stability physics and performance limits in highly elongated plasmas
- MDC-14: Rotation effects on NTMs
- MDC-15: Disruption database – halo current – joint analysis
- MDC-16: Runaway electron generation, confinement, and loss
- MDC-17: Physics-based disruption avoidance

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