Agenda for NSTX Diagnostic Meetings
Thursday, July 21 & Tuesday, July 26, 2011

	Thursday, July 21, 2011 – B318, PPPL	
Time	**Topic**	**Speaker/ also submitted by**
1PM EST	**Introduction/organization**	B. Stratton
1:05	**Program overview/goals of the meetings**	J. Menard
	Current Density/q Profile Measurements:	
1:30	Real-time MSE (rtMSE)	F. Levinton
1:35	Motional Stark Effect with Laser Induced Fluorescence Diagnostic. Internal, radially resolved measurements of magnetic field magnitude and pitch angle using a diagnostic neutral beam and laser	J. Foley
1:40	Measuring internally resolved profile of magnetic field fluctuations using the MSE-CIF diagnostic on NSTX	J. Foley
1:45	2D imaging of the magnetic pitch angle in the pedestal region	A. Diallo
1:50	Lithium beam for edge currents	A. Diallo
	Fusion Products/Fast Ions:	
1:55	Multi Chord Neutron Collimator	S. Gerhardt
2:00	Enhanced fusion source profile diagnostic	D. Darrow/W. Boeglin
2:05	FIDA imaging	B. Heidbrink
2:10	Compact NPA array	M. Podestà/ B. Heidbrink
2:15	Fixed sightline E||B Neutral Particle Analyzer (NPA)	S. Medley
	Thomson Scattering (not including divertor TS):	

2:20	“Realtime” MPTS	B. LeBlanc
2:25	Below the midplane edge Thomson scattering system	A. Diallo
	Neutral Density Measurements:	
2:30	Laser Induced Ionization system for neutral density measurements	V. Soukhanovskii
2:35	Laser-Induced Fluorescence (LIF) for edge neutral density profile	A. Diallo
	Electron Density Measurements:	
2:40	FIReTIP-II for NSTX up-grade	K. C. Lee
2:45	Simple interferometer for physics operations and realtime density control	S. Gerhardt
2:50	Upgraded reflectometry density profile measurement	T. Peebles
	Ion Temperature/Rotation Velocity Measurements:	
2:55	Upgrade of the ERD diagnostic	M. Podestà
3:00	Measurement of bulk plasma flows with an interferometric technique	G. Kramer
3:05	2D Coherent Imaging of Divertor Flows	A. Diallo
3:10	**Discussion**	J. Menard & B. Stratton
4PM	**END**	
	Tuesday, July 26, 2011 – B318, PPPL	
	Divertor Measurements:	
1:30PM EST	Divertor Multi-point Multi-pulse Thomson Scattering System	V. Soukhanovskii, S. Gerhardt, D. Stotler
1:35	Very fast neutral pressure measurements, for gas injection feedback; optimal is private flux region	R. Maingi
1:40	Fast thermography measurements and fast thermocouples for feedback	A. McLean
1:45	Real time surface emissivity measurements	A. McLean

1:50	Improved instrumentation of upper divertor for power balance studies: a) IR camera, b) fast thermocouples, c) bolometry, d) upper divertor tangential views	T. Gray
1:55	Diagnosis of vertical part of center stack, including visible and IR emission (first lower, then upper divertors)	T. Gray
2:00	SXR/VUV Imaging Radiometer for the NSTX-U divertor	D. Stutman
2:05	Radiating volume reconstruction	M. Jaworski
2:10	Tangential imaging of divertor	R. Maqueda
2:15	Radiation tomography system	V. Soukhanovskii
2:20	Tangential divertor Soft X-ray Camera	D. Battaglia/ R. Maingi
2:25	NSTX-U Outboard Langmuir Probe Array (OLPA) and ion-sensitive particle diagnostics	M. Jaworski
2:30	Pop-up/swing probes	M. Jaworski
	PMI Measurements:	
2:35	MAPP (Materials Analysis Particle Probe) UPGRADE	J. P. Allain/ C. Skinner
2:40	Laser Induced Break-down Spectroscopy (LIBS) Laser induced ablation spectroscopy (LABS)	C. Skinner/ J. P. Allain
	Fluctuations:	
2:45	BES upgrade to 64 spatial channels & Increase spatial resolution/k-resolution of BES, especially near the edge/pedestal region regions	R. Fonck/G. McKee
2:50	Ion temperature and rotation velocity fluctuation diagnostic	R. Fonck
2:55	BES Passive FIDA reference view	B. Heidbrink
3:00	Multichannel Doppler backscattering	T. Peebles
3:05	Radially viewing 300 GHz polarimetry system	T. Peebles
3:10	Cross polarization scattering (CPS) for localized magnetic field fluctuation measurements	D. Smith
3:15	Phase Contrast Imaging (PCI) for NSTX	W. Guttenfelder
3:20	3-D GPI (Gas Puff Imaging) diagnostic	S. Zweben
3:25	2D Wavenumber Spectra Measurement via High-k Scattering	N. Luhmann/ Y. Ren
	Soft X-Ray Measurements (MHD):	
3:30	In-vessel system of toroidally displaced, tangential edge/core ME-SXR arrays	D. Stutman

3:35	Ultrafast dual-energy SXR imaging system	D. Stutman
	SXR/VUV Spectroscopy:	
3:40	Fast Transmission Grating Imaging Spectrometer for the NSTX-U core and edge	D. Stutman
3:45	Repetitive laser blow-off impurity injection system	D. Stutman
	Magnetics:	
3:50	Internal Tri-axial Magnetic Probe Arrays for Determining Scrape-Off-Layer Current (SOLC) Distributions in NSTX-U	H. Takahashi
3:55	Tile Current Sensor Arrays for Measuring SOLC Distributions in NSTX-U	H. Takahashi/ S. Gerhardt
4:00	Electrode Array for Exciting ELMs and Probing SOLC Structures in NSTX-U	H. Takahashi
4:05	High-reliability, High-resolution, Fast, Internal Diamagnetic Loop for NSTX-U	H. Takahashi
4:10	External Tri-axial Magnetic Probe Arrays for Determining Structural Error Field in NSTX-U	H. Takahashi
4:15	Refurbishment of certain magnetic diagnostics on the low-field side (outer vessel) of NSTX	S. Gerhardt
4:20	**Discussion**	J. Menard & B. Stratton
5:00	**END**	