

Research Operations Division Boundary Physics (*H. Kugel*)

- ◆ Liquid Lithium Divertor (LLD)
 - ▶ SNL investigating different techniques for fabricating the LLD
 - PPPL making an aluminum prototype for trial fit-up before closing
 - ▶ FDR for LLD Controls when SNL/NM completes design
 - Assigning ports, feedthroughs for drafting control wiring
 - ▶ FDR for LLD Diagnostics when Peer Reviews and CWDs complete
- ◆ Fabricating 3 new LITER units for coating the LLD next year
 - ▶ Setting up for testing coating techniques in L-245 and L-111 labs
- ◆ Graphite tiles exposed in 2008 sent to SNL for ion beam analysis and tile core samples and coupons to Purdue University for surface analysis
- ◆ Collaborators from Purdue University plan to install a Material Analysis Particle Probe (MAPP) on Bay-J lower port
 - ▶ Transport samples to Purdue for analysis in portable vacuum enclosure

Research Operations Division Diagnostics (*R. Kaita, B. Stratton*)

◆ PCHERS

- ▶ Preliminary analysis of line-of-sight averaged v_{pol} for a few shots
- ▶ Development of analysis for local v_{pol} continues
- ▶ Performed XMP-57 to measure lithium with TCHERS at end of run

◆ FIDA – collaboration with B. Heidbrink, M. Podestá (UC-I)

- ▶ Successfully took data throughout the run

◆ BES – collaboration with G. McKee (UWisc)

- ▶ FDR last week for viewing optics installation at Bay B
- ▶ Aim to cut vessel penetrations in October, then complete installation in mid-run opening next year

◆ MSE-LIF

- ▶ Fabricating mounting stand and preparing ports this opening
- ▶ Aiming for availability in FY10

Research Operations Division Diagnostics [2]

- ◆ Completed post-run spatial and "white plate" calibrations for CHERS, FIDA, ENDD, tOSXR, and VIPS
- ◆ POSTECH graduate student W. Lee returned to Korea after working on calibration and operation of high-k scattering diagnostic
- ◆ POSTECH graduate student H. Kim arrived at PPPL with interest in fluctuations induced by HHFW waves
- ◆ POSTECH graduate student H. Kang used MIST code to calculate impurity charge-state distributions in NSTX discharges
- ◆ N. Nishino of Hiroshima University gave presentation entitled "Status of two-dimensional ion velocity measurement system in NSTX" at 14th International Congress on Plasma Physics (ICPP2008) in Fukuoka, Japan, September 8-12

Research Operations Division

RF systems (*J. Hosea*)

- ◆ Upgrading HHFW antenna to provide symmetric end feed with midplane virtual ground
 - ▶ Old components removed
 - ▶ Now receiving new straps and other components
 - ▶ Expect to complete upgrade this opening

Research Operations Division Physics Operations (*D. Mueller*)

- ◆ Completed initial test of NB control by real-time control computer at end of run
- ◆ Now preparing for β_N feedback control to be implemented next run
- ◆ Need to develop discharge scenarios and control strategies for operation with LLD