

NSTX Weekly Report (November 4, 2011)

NSTX is in the Upgrade Project outage in FY 2012

The paper “Transient CHI start-up simulations with the TSC” by R. Raman (University of Washington), et al., has been published on-line in Nucl. Fusion **51**, 113018 (2011). It describes the first results from simulation of a transient CHI discharge in NSTX with the TSC code and shows consistency with earlier theoretical predictions for the variation of CHI produced toroidal current with injector flux and toroidal field. These results imply a favorable scaling of CHI with increasing machine size. (R. Raman)

A new member of LLNL on-site collaboration team Dr. Eric Meier has arrived to PPPL on a long-term research assignment. Eric is a new LLNL postdoctoral researcher. He will focus his research efforts on numerical transport and turbulence modeling in support of NSTX divertor experiments, as well as divertor physics projections and cryo-pump design calculations for NSTX-Upgrade. (V. A. Soukhanovskii, LLNL)

Engineering Operations (A. von Halle, C. Neumeier)

NSTX Upgrade construction activities continued this week with the ongoing removals of diagnostics and items mounted externally on the vacuum vessel. Installation of the new West 118' platform continued, and the relocation of racks on the 109" platform has started. A neutral beam (NB) equipment removal procedure has been signed off and brought to the Upgrade Work Control Center, and the fabrication of the NB2 duct is about to begin.

Access to the NSTX test cell will be available only through previous arrangement with the Upgrade Work Control Center.