Proposal and Attendance Form for NSTX Research Forum 2001

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Please write in the boxes below a one-page abstract of your proposal to be presented:

Title: Kinetic Documentation of High Harmonic Fast Wave Heating in NSTX

Abstract: This talk will review the kinetic documentation of the HHFW experiment on NSTX. Initial results have proven successful at k// = 14 m^{-1}. HHFW brought the electron temperature to above 1.1 keV in helium plasma. With 1.8-MW HHFW power applied, the central temperature quickly rises, from 0.3 keV before the HHWF pulse, to 1.15 keV. In a reference "no-RF" discharge the temperature rises to 0.5 keV at the time of interest. The more than doubling of T_{e0} occurs even if the loop voltage during HHFW heating is slightly lower (by 0.25-0.5 V) than during the no-RF plasma. The electron temperature increase occurs over a broad region in the plasma core region. In deuterium plasmas, HHFW was found less efficient with T_{e0} increase of the order of 60% during a 2.5-MW HHFW pulse. But the electron heating remains over a wide fraction of the core region.

Choose only one topical session by inserting X for each proposal (Use separate forms for separate proposals)	**2000 Results** (mbell@pppl.gov) **& 2001 Research Program** (esynakowski@pppl.gov) (Please submit by January 10, 2001) __ET1: Macroscopic Stability __ET2: Transport & Turbulence X ET3: High Harmonic Fast Wave & Electron Bernstein Wave __ET4: Coaxial Helicity Injection __ET5: Boundary Physics **2002-2005 Research Opportunities** (mpeng@pppl.gov) (Please submit by January 11, 2001) __TG1: Noninductive Startup __TG2: Heating, Current Drive & Fueling __TG3: Macroscopic Stability __TG4: Transport & Turbulence __TG5: Energetic Particle Physics __TG6: Multiphase Interface (Boundary Physics) **Fluctuations Measurement** (esynakowski@pppl.gov) (Please submit by January 10, 2001) __Fluctuations Measurement proposals

Select a presentation option by inserting X:

X Oral presentation in person

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__Ask discussion leader to include in discussion
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Special Requests for your proposal (projector type, time constraints, etc.):

Need to be first speakrer.

Please return this document via e-mail attachment to jrobinson@pppl.gov, jsavino@pppl.gov, and the corresponding organizer listed above. Please e-mail questions or comments to the organizers listed above.