



## 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: Electron Bernstein Waves in NSTX**

**Abstract:** In the high-beta NSTX plasmas, electron Bernstein waves (EBW) in the electron cyclotron range of frequencies can be useful for heating and driving non-inductive plasma currents. The excitation of EBWs is through mode conversion at the upper hybrid resonance of the externally launched X mode or O mode. Emission of EBWs from inside the plasma can also be observed by diagnostics external to the plasma when the emitted EBWs mode convert to the X mode and the O mode at the edge of the plasma. Such measurements are already in progress on NSTX. Analytical and computational studies to date strongly suggest that the emission measurements can provide a useful guide to the design and implementation of experiments in NSTX on heating and current drive by EBWs. Along with a brief overview of recent theoretical results, topics of interest for future research will be discussed.

Choose only one topical session by inserting X for each proposal (Use separate forms for separate proposals)	<b>2002-2005 Research Opportunities</b> ( <a href="mailto:mpeng@pppl.gov">mpeng@pppl.gov</a> ) (Please submit by January 11, 2001) __TG1: Noninductive Startup _X_TG2: Heating, Current Drive & Fueling __TG3: Macroscopic Stability __TG4: Transport & Turbulence __TG5: Energetic Particle Physics __TG6: Multiphase Interface (Boundary Physics) <b>Fluctuations Measurement</b> ( <a href="mailto:esynakowski@pppl.gov">esynakowski@pppl.gov</a> ) (Please submit by January 10, 2001) __Fluctuations Measurement proposals
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**Select a presentation option by inserting X:**

- Oral presentation in person
- Remote presentation via ShowStation and speakerphone
- Ask discussion leader to include in discussion
- No need to present, but include in meeting summaries
- Attend Forum only (in person or with remote access)

**Special Requests for your proposal (projector type, time constraints, etc.):**

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