



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: Emission of Electron Bernstein Waves

Abstract: Geometric optics analysis shows that electron Bernstein waves (EBW) are strongly damped on electrons in the vicinity of the Doppler broadened electron cyclotron resonance or its harmonics. Consequently, such resonance layers are good emitters of EBWs. The EBWs mode convert to electromagnetic X and O modes at the upper hybrid resonance. These electromagnetic modes have been observed in experiments on NSTX. A kinetic model developed for studying mode conversion of emitted EBW radiation to X and O modes has provided some interesting results. In particular, we find that the fraction of EBW power converted to X mode and to O mode is directly related to the power mode converted to EBWs when the X mode or the O mode is launched from outside the plasma. These results will be discussed.

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) <input type="checkbox"/> _ET1: Macroscopic Stability <input type="checkbox"/> _ET2: Transport & Turbulence <input checked="" type="checkbox"/> _X_ET3: High Harmonic Fast Wave & Electron Bernstein Wave <input type="checkbox"/> _ET4: Coaxial Helicity Injection <input type="checkbox"/> _ET5: Boundary Physics
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Select a presentation option by inserting X:

- _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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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.