



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: Beam Ion Distribution Calculations Using Constants of the Motion Approach

Abstract: The constants of the motion (COM) approach allows rapid computation of guiding center orbits in an axisymmetric equilibrium. In 2001, the utility of the COM approach for NSTX beam ion orbit calculations will be tested by computing the prompt loss fraction. Provided the approach proves successful, it will be extended to some other problems of interest in NSTX, including predicting the signal in the NPA and Fast Lost Ion Probes. In addition, the model would be enhanced to include the effect of the radial electric field, and to estimate the additional loss rate arising from non-adiabaticity, TF ripple, and collisions.

<p>Choose only one topical session by inserting X for each proposal (Use separate forms for separate proposals)</p>	<p><u>2000 Results</u> (mbell@pppl.gov) <u>& 2001 Research Program</u> (esynakowski@pppl.gov) (Please submit by January 10, 2001)</p> <p><input type="checkbox"/> ET1: Macroscopic Stability <input type="checkbox"/> ET2: Transport & Turbulence <input type="checkbox"/> ET3: High Harmonic Fast Wave & Electron Bernstein Wave <input type="checkbox"/> ET4: Coaxial Helicity Injection <input type="checkbox"/> ET5: Boundary Physics</p> <p><u>2002-2005 Research Opportunities</u> (mpeng@pppl.gov) (Please submit by January 11, 2001)</p> <p><input type="checkbox"/> TG1: Noninductive Startup <input type="checkbox"/> TG2: Heating, Current Drive & Fueling <input type="checkbox"/> TG3: Macroscopic Stability <input type="checkbox"/> TG4: Transport & Turbulence <input checked="" type="checkbox"/> XTG5: Energetic Particle Physics <input type="checkbox"/> TG6: Multiphase Interface (Boundary Physics)</p> <p><u>Fluctuations Measurement</u> (esynakowski@pppl.gov) (Please submit by January 10, 2001)</p> <p><input type="checkbox"/> Fluctuations Measurement proposals</p>
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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.):



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.