



Proposal and Attendance Form for NSTX Research Forum 2001

First Name and Initial(s)	Victor A.
Last Name	Yavorskij
Email address	yavorski@inec.kiev.ua
Mailing address	Institute for Nuclear Research, Prospekt Nauky 47, Kyiv 03680, Ukraine
Phone number	
Institution	Institute for Nuclear Research
Co-authors	Zh. N. Andrushchenko, V. Ya. Goloborod'ko

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

Title: Transport of Energetic Particles in STs due to Non-Conservation of the Magnetic Moment

Abstract: The gradient scale length of the magnetic field in NSTX equilibria is only a few times the NBI gyroradius and hence the magnetic moment of these particles is not well-conserved. Beam ions can therefore undergo some collisionless diffusion (subject to strict conservation of E & P). An analytic form of the diffusion coefficient from this effect will be derived to allow calculation of the enhanced redistribution and loss of NB ions.[1]

[1] V. A. Yavorskij, *et al.*, Proceedings of the EPS Meeting on Plasma Physics and Controlled Fusion, 2000.

Choose only one topical session by inserting X for each proposal (Use separate forms for separate proposals)	<p>2000 Results (mbell@pppl.gov) & 2001 Research Program (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>2002-2005 Research Opportunities (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"/> TG5: Energetic Particle Physics <input type="checkbox"/> TG6: Multiphase Interface (Boundary Physics)</p> <p>Fluctuations Measurement (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.