



Proposal and Attendance Form for NSTX Research Forum 2001

First Name and Initial(s)	Rick
Last Name	Moyer
Email address	rmoyer@ferp.ucsd.edu
Mailing address	MS 13-470 General Atomics, P.O. Box 85608, San Diego CA 92186-5688
Phone number	(858) 455-2275
Institution	University of California, San Diego
Co-authors	G.R. Tynan, C. Holland, M.J. Burin, P. Diamond

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

Title: Increased Nonlinear Coupling Between Turbulence and Low Frequency Fluctuations at the L-H Transition

Abstract: The nonlinear coupling between small scale high frequency turbulence and large scale low frequency shear flow increases transiently in L-H transitions in DIII-D. This increase starts *before* the turbulence suppression and $E \times B$ shear flow development *in the region* that becomes the H-mode transport barrier/shear flow region. After the transition, the coupling returns to L-mode values and the H-mode is sustained by the mean $E \times B$ shear flow due to the increased pressure gradient. These results are consistent with spontaneous L-H transitions triggered by a Reynolds stress driven zonal flow.

<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 type="checkbox"/> TG5: 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 checked="" type="checkbox"/> Fluctuations Measurement proposals</p>
---	---

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.