



Proposal and Attendance Form for NSTX Research Forum 2001

First Name and Initial(s)	Ricardo J.
Last Name	Maqueda
Email address	maqueda@lanl.gov
Mailing address	P-24 Plasma Physics, MS E526 Los Alamos NM 87544
Phone number	(505) 667-9316
Institution	Los Alamos National Laboratory
Co-authors	S. Zweben, G. Wurden, et al.

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

Title: Edge Imaging During Combined OH+CHI Experiments

Abstract:

The Kodak fast framing (i.e., Los Alamos) digital camera has proven to be a very useful tool in both OH and CHI experiments in NSTX. It is expected that this will continue to be so in the combined OH + CHI experiments planned for FY2001. In particular, in addition to the wide fish-eye view customarily used during CHI experiments, we have implemented a narrow view of the edge that we use to image localized gas puffs (Gas Puff Imaging diagnostic, or GPI). With this narrow view a 30-cm long poloidal section of the edge is observed tangentially, and depending on the plasma current and toroidal field, the view may correspond to an "along-B" chord. We propose to use this narrow view during the OH + CHI experiments to observe (and study) the changes introduced on the edge by the CHI-driven edge currents. In particular, we plan to observe how the typical edge turbulence seen in NSTX (Experimental Proposal XP-10) changes as CHI is introduced to an Ohmic discharge. These measurements will be complemented with a set of fast chords imaging small portions of the same edge region into photo-multiplier tubes (200 kHz resolution).

<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 checked="" 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) <input type="checkbox"/> TG7: Plasma Science User Research</p> <p><u>Fluctuations Measurement</u> (esynakowski@pppl.gov) (Please submit by January 10, 2001)</p> <p><input 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

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.