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Suggested Process to Enhance NSTX Collaboration – Letter of Interest Record of Discussion

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FY-2001 NSTX Research Forum
Princeton Plasma Physics Laboratory
January 15-19, 2000
Princeton, New Jersey, USA

NSTX Collaboration Review & Renewal Is A Key Component of Peer Review by DOE



- Three components of peer review by DOE
 - NSTX National Facility
 - NSTX National Research Program
 - **NSTX Collaboration**
- NSTX collaboration has been unique and successful
 - Established simultaneously with National Research Program
 - Utilized competitive peer review
 - Essentially all up for review/renewal in FY 2001

Need a fair, equitable, and effective process to renew and enhance collaboration

Fair, Equitable, and Effective Process



- Fair
 - Information – collaboration opportunities, open Research Forum, PAC report, Program Letter
 - Letter of Interest input to NSTX Program
 - Record of Discussion to support proposal to DOE
- Equitable
 - Same collaboration review as DIII-D and C-Mod
 - Peer review individually
- Effective
 - Future reviews beyond FY 2005 to spread out over 3 years to avoid disruption of research
 - Extension of current diagnostic collaboration into FY2002
 - Review and renew the rest for 2 or 3 years efforts
 - Proposal to include also 2-year deliverables.
 - Will require redistribution if choices lead to uneven distribution
 - Future proposals (beyond FY 2002) for 3 year efforts

What to Next for NSTX Research Participation?



Suggested Due Dates

- 1/26/01 – Enhancement opportunities in current collaboration
- 1/30/01 – Letter of Interest to Participate during 2002-2005
- 7 days before proposals are due to DOE – Record of Discussion for FY2002-2005 NSTX Research Proposals

Word forms for the above can be copied from Forum WebPage:

<http://nstx.pppl.gov/nstxhome/forum/overview.html>

Upcoming Events

- 2/8-9/01 – NSTX PAC-10 meeting
- 3/13-15/01 – DOE Budget & Planning Meeting
- 4/1/01(?) – Deadline for FY2002-2005 NSTX Research Proposals to DOE

Opportunities to Enhance Current (through March 2002) NSTX Research

(Key enhancements in completing research tasks within current DOE-approved research scope)

(Due January 26, 2001, email to mpeng@pppl.gov, mono@pppl.gov)

<u>Title of Collaboration Research Activities:</u>		<u>Research began (mm/yy):</u>
<u>Off-Site Institution:</u>		<u>Date (mm/yy):</u>
<u>Collaboration Lead:</u> Name: Email: Tel: Signature: Date:	<u>On-site Research Contact:</u> Name: Email: Tel: Signature: Date:	
<u>Collaboration Research Goals:</u>		
<u>Collaboration Research Tasks through March 2002 within DOE-Approved Research Scope:</u> 1) 2) etc.		
<u>Recommended Enhancements to These Research Tasks within DOE-Approved Research Scope:</u> 1) 2) etc. <u>Estimated Enhancement in Researcher Effort (Man-Months):</u> <u>Total Increment in Collaboration Resource to Achieve the above Enhancement (\$k):</u>		
<u>On-Site Engineering Support Tasks:</u> 1) 2) etc. <u>Increased Engineering Effort Required by Enhancement (Man-Months):</u> <u>Estimated Hardware Cost Required by Enhancement (\$k):</u> <u>Total Increment in On-site Support Resources to Achieve Above Enhancement (\$k):</u>		
<u>Lead Collaboration Researcher's Comments:</u> 1) etc.		
<u>On-Site Research Contact Comments:</u> 1) etc.		

Review and Comment:

NSTX Program Director

NSTX Project Director

Signature

Date

Signature

Date

Letter of Interest to Participate in NSTX Research During 2002-2005

(Due January 30, 2001, Email to mpeng@pppl.gov, mono@pppl.gov)

<u>Title:</u>
<u>Principal Participating Researchers (name, email, institution):</u>
<u>PPPL Research Contact and Partners (name, email):</u>
<u>Present Participation in NSTX Program (if any):</u>
<u>Proposed Research Task and Goal:</u>
<u>Relevance to Overall NSTX Research Goals:</u>
<u>Tools and Equipment to be Provided by Participants:</u>
<u>Conditions Required of NSTX</u> <u>Plasma:</u> <u>Device:</u> <u>Facility:</u>
<u>Planned Graduate Student Participation (number, subjects of study, duration):</u>
<u>Suggested Range of Cost (people, other), for 3-Year Duration Beginning within FY 02:</u>
<u>Three Related Publications:</u>
<u>Optional Comments:</u>

Record of Discussion for FY 2002-2005 NSTX Research Proposals

Key results of discussion among off-site and on-site (PPPL) researchers
in support of NSTX research proposals to DOE
(Due to mpeng@pppl.gov, mono@pppl.gov 7 days before proposal is due to DOE,
don.Priester@science.doe.gov)

<u>Title of Research Activities:</u>		<u>Research began (mm/yy) or New:</u>
<u>Off-Site Institution:</u>		<u>Discussion Dates</u> Initiated on: Completed on:
<u>Off-Site Principal Researcher:</u> Name: Email: Tel: Signature: Date:	<u>On-Site Research Contact:</u> Name: Email: Tel: Signature: Date:	
<u>Research Goals:</u>		
<u>Off-Site Research Tasks:</u> 1) 2) etc.		
<u>On-Site Research Support Tasks:</u> 1) 2) etc. <u>Estimated Researcher Effort Required (Man-Months):</u>		
<u>On-Site Engineering Support Tasks:</u> 1) 2) etc. <u>Engineering Effort Required (Man-Months):</u> <u>Estimated Hardware Cost Required (\$k):</u>		
<u>Off-Site Researcher Questions and Issues:</u> 1) 2) etc.		

Responses by On-Site Research Contact and Task Manager:

1)

2)

etc.

Off-Site Researcher's Comments:

1)

2)

etc.

On-Site Research Contact and Task Manager Comments:

1)

2)

etc.

Review and Comment:

NSTX Program Director

NSTX Project Director

Signature

Date

Signature

Date

NSTX Collaboration Lead & PPPL Contact

Updated January 7, 2001

Institution	Institutional Lead	Research Topic	Collaboration Lead	PPPL Contact
Columbia U	Jerry Navratil Navratil@columbia.edu	MHD Studies	Steve Sabbagh ssabbagh@pppl.gov	Stan Kaye skaye@pppl.gov
General Atomics	John Ferron ferron@gav.gat.com	Coaxial Helicity Injection (CHI) Equilibrium Reconstruction	Mike Schaffer schaffer@gav.gat.com	Stan Kaye skaye@pppl.gov
		Radio Frequency Physics	Bob Pinsker pinsker@gav.gat.com	Randy Wilson jwilson@pppl.gov
		Plasma Control*	John Ferron ferron@gav.gat.com	Dave Gates dgates@pppl.gov
Johns Hopkins U	Michael Finkenthal mike@eta.pha.jhu.edu	Ultra-Soft X-Ray (USXR) Diagnostics	Dan Stutman dstutman@pppl.gov	Bob Kaita rkaita@pppl.gov
LANL	Glen Wurden wurden@lanl.gov	Fast visible & infrared imaging	Ricardo Maqueda Maqueda@lanl.gov	Stewart Zweben szweben@pppl.gov
		Macroscopic Stability Modeling (Theory funded)	Alan Glasser ahg@nimrod.lanl.gov	Steve Sabbagh ssabbagh@pppl.gov
LLNL		Edge, Scrape-Off Layer Modeling	Gary Porter Porter2@llnl.gov	Daren Stotler dstotler@pppl.gov
		Boundary Plasma Stability & Turbulence	Xueqiao Xu xxu@llnl.gov	Greg Rewoldt grewoldt@pppl.gov
Lodestar	D'Ippolito dasd@lodestar.com	Boundary Plasma Stability & Turbulence (Theory funded)	Myra myra@lodestar.com	Greg Rewoldt grewoldt@pppl.gov
MIT	Miklos Porkolab Porkolab@psfc.mit.edu Ian Hutchinson hutch@psfc.mit.edu	Electron Cyclotron Heating-Electron Bernstein Wave Modeling	Abe Bers bers@mit.edu Abhay Ram Abhay@psfc.mit.edu	Dick Majeski rmajeski@pppl.gov
		Ion Cyclotron Radio Frequency Modeling	Paul Bonoli Bonoli@psfc.mit.edu	Cynthia Phillips ckphillips@pppl.gov
		Edge Measurements	Spencer Pitcher csp@psfc.mit.edu	Henry Kugel hkugel@pppl.gov
Nova Photonics		Motional Stark Effect (MSE) Diagnostics	Fred Levinton flevinton@pppl.gov	Dave Johnson djohnson@pppl.gov
NYU		Transport and RF Heating Theory (Theory funded)	C S Chang cschang@pppl.gov	Martin Peng mpeng@pppl.gov
ORNL	Dave Rasmussen rasmussenda@ornl.gov	Radio Frequency Launcher & Experiments (Technology Funded in part)	Dave Swain swaindw@ornl.gov	Randy Wilson jwilson@pppl.gov
		ECH/EBW Mode Conversion Plasma Initiation, Heating, Current Drive	Tim Bigelow bigelowts@ornl.gov	Randy Wilson jwilson@pppl.gov
	Peter Mioduszewski mioduszewspk@ornl.gov	Edge Experiments	Rajesh Maingi rmaingi@pppl.gov	Charles Skinner cskinner@pppl.gov
		Transport Simulation	Wayne Houlberg houlbergwa@ornl.gov	Stan Kaye skaye@pppl.gov

		Coherent laser radar metrology (Technology Funded)	Madhavan Menon menonmm@ornl.gov	Henry Kugel hkugel@pppl.gov
Princeton Scientific Instruments		Fast Tangential X-Ray Imaging	S. Von Goeler	Erik Fredrickson efredrickson@pppl.gov
SNL	Mike Ulrickson maulric@sandia.gov	Plasma Facing Material (Technology Funded)	Dick Nygren renygre@sandia.gov	Henry Kugel hkugel@pppl.gov
		Material Surface Analysis (Technology Funded)	William Wampler wrwampl@sandia.gov	Henry Kugel hkugel@pppl.gov
UC Davis	Neville Luhmann Luhmann@ucdavis.edu	Far-InfraRed Tangential Interferometer/ Polarimeter (FIReTIP)	Bihe Deng bhdeng@ucdavis.edu	Hyeon Park hpark@pppl.gov
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		Fast Probe	Jose Boedo jboedo@fusion.ucsd.edu	Henry Kugel hkugel@pppl.gov
U Washington	Tom Jarboe Jarboe@aa.washington.edu	Coaxial Helicity Injection	Roger Raman raman@aa.washington.edu	Dennis Mueller dmueller@pppl.gov