Program ~ Innovative Confinement Concepts Workshop 2007
February 12-14, College Park, Maryland
Location: University of Maryland Inn and Conference Center by Marriott

Monday, February 12, 2007

7:45	Continental Breakfast	
8:45	Welcome and Administrative Matters	
High-Beta Magnetic Confinement: RFP, MCX, LDX, Pegasus, and ZaP		*Chair: Darren Garnier*
9:00	Generation and confinement of hot thermal ions through the manipulation of magnetic reconnection in the reversed field pinch	Sanjay Gangadhara
9:20	High beta, high density improved confinement reversed-field pinch plasmas	Max Wyman
9:40	Progress on the Maryland centrifugal experiment	Adil Hassam
10:00	*Break*	
10:30	Overview of results from supported mode operation of the Levitated Dipole Experiment	Jennifer Ellsworth
10:50	Non-inductive startup using localized washer gun plasma sources on the Pegasus Toroidal Experiment	Nicholas Eidietis
11:10	Stabilization in the ZaP flow Z-pinch	Uri Shumlak
11:30	Panel Discussion	
12:00	*Lunch ~ Complimentary to registered attendees*	
1:00	Poster Session #1	
Inertial Fusion Energy Research		*Chair: John Perkins*
2:30	The national ignition facility and its future role in inertial fusion energy	Edward Moses
2:50	A European path to fast ignition fusion energy	Mike Dunne
3:10	Laser fusion energy and the fusion test facility	John Sethian

3:30	*Break*	
4:00	Innovations for warm dense matter research may lead to improved heavy ion fusion approach	Grant Logan
4:20	Magneto inertial implosion experiments on the OMEGA laser	Orlin Gotchev
4:40	Shock ignition of thermonuclear fuel with high areal densities	Riccardo Betti
5:00	Panel Discussion	
Non-Technical Session		*Chair: Stephen Knowlton*
7:30	Update from OFES	TBA
8:00	ICC Program	Francis Thio
8:30	One Pager Discussion	Stephen Knowlton

Tuesday, February 13, 2007

8:00	Continental Breakfast	
High-Beta and Simply Connected: FRC		*Chair: Alan Hoffman*
9:00	RMFo-formed collisionless high-beta plasmas: Yesterday, today and tomorrow	Samuel Cohen
9:20	Evidence of relaxation and spontaneous transition to a high-confinement state in high-beta steady-state plasmas sustained by rotating magnetic fields	Houyang Guo
9:40	Ohmic sustainment of free boundary compact toroids in MRX	Gerhardt Stefan
10:00	*Break*	
10:30	Issues for a magnetized target fusion reactor	Glen Wurden
10:50	The Pulsed High Density Experiment: Initial results from the dynamic formation of high flux FRCs	Samuel Andreason

11:10	Hybrid simulations of rotational instabilities in FRCs	Elena Belova
11:30	Panel Discussion	
12:00	*Lunch ~ Complimentary to registered attendees*	
1:00	Poster Session #2	
Theory and Computation		*Chair: James Van Dam*
2:30	FRC simulations using the NIMROD code	Richard Milroy
2:50	Two-fluid simulations of field reversed configurations	Ammar Hakim
3:10	Initial comparison of HIT-SI measurements to NIMROD calculations	R. G. O'Neill
3:30	*Break*	
4:00	Startup of spherical tokamak component test facility by co-axial helicity injection	Xianzhu Tang
4:20	Simulation of FLR effects on RFP tearing modes	Charlson Kim
4:40	Tendency of MHD forces to create localized, collimated plasma-filled flux tubes and ion orbit instability in a flux tube	Paul Bellan
5:00	Panel Discussion	
ICC Strategy Session		*Chair: TBA*
7:30	Session TBA	

Wednesday, February 14, 2007

8:00	Continental Breakfast	
Skunkworks		*Chair: Simon Woodruff*
9:00	Suitability of small scale linear systems for a fission- fusion reactor, breeder, and waste transmutation	John Slough
9:20	Pressurized gas as a driver for magnetized	Dmitri Ryutov

	target fusion	
9:40	Nuclear fusion with reduced coulomb barriers	John Perkins
10:00	*Break*	
10:30	Linear Connected Array of Non-Adiabatic Traps	Hiromu Momota
10:50	New concepts for reducing costs and improving efficiency of solid-state laser drivers for inertial fusion energy	Alvin Erlandson
11:10	Panel Discussion	
11:30	*Lunch ~ Complimentary to registered attendees*	
12:30	Poster Session #3	

Simply Connected and/or Current Drive Solutions: Spheromaks, Stellarators and Others — *Chair: Bick Hooper*

2:00	Internal magnetic structure and electric fields in the Helicity Injected Torus with Steady Inductive Helicity Injection (HIT-SI)	Aaron Redd
2:20	Flow dynamics and plasma heating of spheromaks in SSX	Michael Brown
2:40	Magnetic field generation and sustainment in the SSPX spheromak	Harry Mclean
3:00	The search for reconnection and helicity during formation of a bounded spheromak	Carlos Romero-Talamas
3:20	*Break*	
3:50	Onset and saturation of the kink instabilities in a current carrying, line-tied plasma surrounded by a resistive shell	Cary Forest
4:10	Reduced neoclassical particle and heat transport with quasihelical symmetry in HSX	John Canik
4:30	Confinement of pure electron plasmas in the Columbia non-neutral torus	John Berkery
4:50	Energy confinement predictions for the	Wendell Horton

stabilized Tandem Mirror and GAMMA-10

5:10 Panel Discussion