

2002/08/20

The 2002 US-Japan Workshop on
New directions in controlling and sustaining compact toroids

Monday Sept. 9

13:00-13:15	Opening Session	S. Okada, L. Steinhauer
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Overview

13:15-13:40	Historical overview to the next step of FRC at Osaka	S. Goto
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13:40-13:55	-----15 min break-----	
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Global Behavior

13:55-14:20	Control of an FRC translation velocity by a resistive metal liner	Tsutomu Takahashi
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14:20-14:45	Numerical Investigation of Reflection Process of FRC	T. Kanki
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14:45-14:55	-----10 min break-----	
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14:55-15:20	Development of curved drift tubes for the vertical CT injection	N. Fukumoto
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15:20-15:45	Overview of High-density FRC Research on FRX-L at Los Alamos National Laboratory	M. Taccetti
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15:45-16:00	-----15 min break-----	
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Theory

16:00-16:25	Effect of angular momentum on FRC minimum energy states	P. Geren
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16:25-16:50	Proof of non-invariance of magnetic helicity in ideal plasmas and a general theory of self-organization for open and dissipative dynamical systems	Y. Kondoh
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Tuesday Sept. 10

Spheromak

09:00-09:25	Experimental Study of the bifurcated relaxation of merging spheromaks into an FRC	E. Kawamori
09:25-09:50	Spheromak merging and FRC formation studies at SSX-FRC	C. Cothran
09:50-10:00	-----10 min break-----	
10:00-10:25	Processes that govern helicity injection in the SSPX spheromak	C. Cothran (in S. Woodruff's stead)
10:25-10:50	Recent progress of compact RFP experiment in TS-4 device	M. Tsuruda
10:50-11:05	-----15 min break-----	

Stability I

11:05-11:30	Self-generation of Hollow Current Profile and Tilt Instability in Field-Reversed Configurations	H. Ohtani
11:30-11:55	Global Motion of Field-Reversed Configuration Plasma	K. Fujimoto
11:55-13:15	-----LUNCH-----	

Stability II

13:15-13:40	Nonlinear and non-ideal effects on FRC stability	E. V. Belova
13:40-14:05	Comment on two fluids effect	A. Ishida
14:05-14:20	-----15 min break-----	

Heating and Current drive

14:20-14:45	Global Eigenmodes of Low Frequency Waves in FRCs	N. Iwasawa
14:45-15:10	Investigation of Electron Heating Effect in NB-injected FRC	M. Inomoto
15:10-15:35	Recent results from and proposed changes to the TCS rotating magnetic field FRC generation experiment	H.Y. Guo
15:35-15:50	-----15 min break-----	
15:50-16:50	Panel Discussion on Current drive, Steady state	
19:00-	Banquet	

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Wednesday Sept. 11

Transport and Confinement

09:00-09:25	Cross-Field Particle Transport due to Electromagnetic Fluctuation in a Field-Reversed Configuration	Toshiki Takahashi
09:25-09:50	Self-consistent electric fields and flows in the edge plasma of FRCs	L. Steinhauer
09:50-10:05	-----15 min break-----	
10:05-11:05	Panel Discussion on Physics issues toward CT reactors (Stability, Transport, and New ideas)	
11:05-	Closing	

All Presentations will be oral. The time allocated for each presentation is 25 minutes, including the time for questions and discussions.

Both an overhead projector and a LC projector are available. We are going to arrange some PCs (MS-Windows?) at the workshop site,

But we recommend those who plan to give presentations by Powerpoint should bring their own PCs as well as alternative transparencies to be prepared for unforeseeable circumstances.