

**Fourth IAEA Technical Meeting on
Steady-State Operation of Magnetic Fusion Devices and
MHD of Advanced Sciences**

Institute for Plasma Research, Gandhinagar, India

1 to 5 February, 2005

Venue : Hotel Fortune Landmark, Ashram Road, Ahmedabad 380013

Tentative Programme of the TMSSO, IPR, Gandhinagar, February 1-5, 2005

Monday January 31, 2005

17:00 -19:00 Registration at Hotel Fortune Landmark

Tuesday February 1, 2005

Time	Paper No	Speaker	Title
8:00		Late registration	
9:00		Opening Remarks	
9:30		Overview, Superconducting Devices (OV -I)	
9:30	P-OV.1	Van Houtte, D.	Long pulse discharges in Tore Supra: a fully non-inductive steady-state 1 GJ operation
10:15	P-OV.2	Mutoh, Takashi	Steady State Operation of ICRF, ECH and NBI Heated Plasma in the LHD
11:00		Break	
11:20	P-OV.3	Li, Jiangang	Present Status and Performance of long pulse steady-state Operation in HT-7 superconducting tokamak
12:05	P-OV.4	Zushi, H.	Overview of steady-state tokamak operation in TRIAM-1M
12:50		Lunch	
13:30		Overview, Superconducting Devices (OV -II)	
13:30	P-OV-5	Saxena, Y. C.	Status of SST-1 Tokamak
14:15	P-OV.6	Fu, Peng	Status of EAST Tokamak (to be submitted)
15:00		Break	
15:20	P-OV.7	Lee G.S.	Status of KSTAR Tokamak (to be submitted)
16:05	P-OV.8	Bolt, H.	Status of the Construction of the Stellarator WENDELSTEIN VII-X
16:50	P-OV.9	Kikuchi, M.	Status of NCT (to be submitted)
19:30		Conference Dinner	

Wednesday, February 2, 2005

9:00		Long-pulse operation and Advanced Tokamak (LP-I)	
9:00	P-LP.1	Jayakumar, R. J.	Developments in Stationary, Long Pulse, High performance Discharges and Potential for High ITER Performance:
9:45	P-LP.2	Fujita, T.	Steady State Operation Research in JT-60U with Extended Pulse Length
10:30		Break	
10:50	I-LP.1	Gates, D.	Progress towards steady state on NSTX
11:20	I-LP.2	Pericoli Ridolfini, Vincenzo	Long lasting ITB in FTU
11:50	I-LP.3	Basiuk, Vincent	Long pulse operation at high power level on Tore Supra
12:20	O-LP-1	Kumazawa, R.	Long Pulse Discharge of ICRF Heated Plasma on the Large Helical Device
12:40		Lunch	
13:30		Long-pulse operation and Advanced Tokamak (LP-II)	
13:30	I-LP.4	Maisonnier, David	Fusion Power Plant Conceptual Studies in Europe
14:00	I-LP.5	TBD	
14:30	I-LP.6	TBD	
15:00		Break	
15:30	I-LP.7	Deshpande, Shishir P.	Physics Programme of SST-1

16:00 O-LP.2 Chantant, Michel Power balance in long pulse operation by calorimetric analysis

16:20 Poster Session (All Posters)

18:20 End of Poster Session

Thursday February 3, 2005

9:00 Steady state Fusion Technologies (FT)

9:00 I-FT.1 Salpietro, E. Development of low and high temperature superconductors for fusion application

9:30 I-FT.2 Duchateau, J.L. Estimation of recycled power associated with cryogenic refrigeration power; From TORE SUPRA to ITER

10:00 I-FT.3 Sarkar, B. Cryogenic systems for fusion machines

10:30 Break

10:50 O-FT.1 Choi, C. H. Status of the KSTAR Toroidal Field Coil Structure Fabrication

11:10 O-FT.2 Liu, Xiaoning Power supply for the superconducting tf magnet system of east

11:30 O-FT.3 Sborchia, C. Status of the Manufacture and Testing of the W7-X Magnets

11:50 O-FT.4 Ivanov, D. P. Insulation of the Leads in Forcecooled Superconducting Magnets

12:10 O-FT.5 Rummel, Thomas The power supply and coil protection system of WENDELSTEIN 7-X

12:30 O-FT.6 Fu, Peng Quench Protection of PF Superconducting Coil System for the EAST Tokamak

12:50 Lunch

14:00 Visit to Institute for Plasma Research

19:00 **Cultural Program**

Friday February 4, 2005

9:00 Heating and Current Drive (HCD)

9:00 Post deadline

9:45 I-HCD.1 Bora, D. Ion Cyclotron Resonance Heating (ICRH) system for SST-1

10:15 Break

10:35 I-HCD.2 Erckmann, Volker Steady state test of 1MW Gyatron for W7-X (to be submitted)

11:05 I-HCD.3 Mattoo, S.K. Long Pulse Characteristics of 5 MW Ion Source for 1.7 MW Neutral Beam Injector

11:35 O-HCD.1 Yoon, J. S. Development of a Liquid Phase Shifter and a Liquid Stub Tuner for KSTAR

11:55 O-HCD.2 Bae, Y.D. Enhancement of High-voltage and Long-pulse Capabilities of KSTAR ICRF Antenna by a Water-cooling

12:15 O-HCD.3 Sathyanarayana, K. Commissioning of 82.6 GHz Electron Cyclotron Resonance Heating system on SST-1 tokamak

12:35 Lunch

13:15 Particle control and power exhaust (PC)

13:15 P-PC.1 Brosset, Christophe Investigation of deuterium retention in Tore Supra long discharges

14:00 I-PC.1 Escourbiac, F. Key issues in actively cooled plasma facing components qualification and

14:30 O-PC.1 Takenaga, H. Effects of long time scale variation of plasma wall interactions on particle control in JT-60U

14:50 O-PC.2 Hirooka, Y. Particle Control in Steady State Magnetic Fusion Reactors by Moving-Surface Plasma-Facing Components

15:10 Break

15:30 O-PC.3 Mitteau, Raphael Evaluation of the Growth of Carbonaceous Deposit in Steady State Tore Supra Using Infrared Thermography

15:50 O-PC.4 Prakash, Ravi Eddy Current Analysis in 3D for Plasma Facing Components during Disruption conditions in SST-1 Tokamak using ANSYS Software

16:10 Poster Session (All Posters)

18:10 End of Poster Session

Saturday February 5, 2005

9:00 Feedback control, theory and modelling of steady state plasma (SS, TH)

9:00 P-SS.1 Bucalossi, Jerome Feedback control in staeedy state scenario in Fusion Machines
9:45 I-TH.1 Mioduszewski, P.K. How Does Wall Recycling Evolve At Long-Pulse Operation?

10:15 Break

10:35 I-TH.2 Budny, Robert Time-Dependent, Integrated Modeling of Burning Plasmas
11:05 O-TH.1 Bandopadhyay, I. Modeling of advanced plasma configurations in SST-1 tokamak

11:25 Conclusion

13:00 Lunch

14:00

Local Sightseeing Tour

16:30 Transfer to Airport

Poster Presentations

POS_FT.1 Chakrapani, Ch. Study of initial cooldown, long term behavior and regeneration of cryopump for IPR Neutral Beam Injector

POS_FT.2 Doshi, Bharat Design requirements, qualification tests and integration of a thin solid lubricant film of MOS2 for cold mass support structure of SST-1 tokamak

POS_FT.3 Kim, B.C. Development of KSTAR Vacuum Structure and Thermal Shields

POS_FT.4 Kim, H.K. Present status of the KSTAR Tokamak Assembly

POS_FT.5 Lee, Y.J. Development Status of the KSTAR Current Feeder System

POS_FT.6 Mahajan, Kirti CENTRAL CONTROL SYSTEM FOR SST-1 TOKAMAK

POS_FT.7 Oh, Y.K. Status of KSTAR Superconducting coil Fabrication and test.

POS_FT.8 Sarkar, B. Cryogenic system Performance with load for SST-1: Results and analysis

POS_FT.9 Sharma, A.N. Quench Detection & Protection System for Superconducting Magnets of SST-1 Tokamak

POS_FT.10 Sharma, Rajiv Design, Development and Testing of Electrically isolated Helium feeds for forced flow cooled Super-conducting magnet at 4.5 K

POS_HCD.1 Bora, D. A predictive study of LHCD system for SST1 Machine using CRONOS code

POS_HCD.2 Bora, D. Current status of LHCD system of SST1 machine

POS_PC.1 Govardhan, G. SST1-Cooling Water System

POS-LP.1 Bucalossi, Jerome Fully non-inductive steady state operation at Tore Supra: the 1GJ plasma discharge experience