

**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

**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**

<b>Time</b>	<b>Paper No</b>	<b>Speaker</b>	<b>Title</b>
8:00		Late registration	
9:00		Opening Remarks	
<b>9:30</b>		<b>Overview, Superconducting Devices (OV -I)</b>	
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
<b>11:00</b>		<b>Break</b>	
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
<b>12:50</b>		<b>Lunch</b>	
<b>13:30</b>		<b>Overview, Superconducting Devices (OV -II)</b>	
13:30	P-OV.5	Saxena, Y. C.	Status of SST-1 Tokamak
14:15	P-OV.6	Fu, Peng	Progress of EAST project in China
<b>15:00</b>		<b>Break</b>	
15:20	P-OV.7	Kwon, Myeun	Current Status of KSTAR Tokamak
16:05	P-OV.8	Bolt, H.	Status of the Construction of the Stellarator WENDELSTEIN VII-X
16:50	P-OV.9	Kikuchi, M.	Overview of National Centralized Tokamak Program
19:30		<b>Conference Dinner</b>	
		<b>Wednesday, February 2, 2005</b>	
<b>9:00</b>		<b>Long-pulse operation and Advanced Tokamak (LP-I)</b>	
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
<b>10:30</b>		<b>Break</b>	
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
<b>12:30</b>		<b>Lunch</b>	
<b>13:30</b>		<b>Long-pulse operation and Advanced Tokamak (LP-II)</b>	
13:30	I-LP.7	Deshpande, Shishir P.	Physics Programme of SST-1
14:00	O-LP-1	Kumazawa, R.	Long Pulse Discharge of ICRF Heated Plasma on the Large Helical Device
14:20	O-LP.2	Chantant, Michel	Power balance in long pulse operation by calorimetric analysis
<b>15:00</b>		<b>Break</b>	
<b>15:30</b>		<b>Poster Session (All Posters)</b>	
17:30		End of Poster Session	
		Local site seeing	

#### Thursday February 3, 2005

<b>9:00</b>		<b>Steady state Fusion Technologies (FT)</b>	
9:00	I-FT.2	Duchateau, J.L.	Estimation of recycled power associated with cryogenic refrigeration power; From TORE SUPRA to ITER
9:30	I-FT.3	Sarkar, B.	Cryogenic systems for fusion machines
10:00	O-FT.1	Choi, C. H.	Status of the KSTAR Toroidal Field Coil Structure Fabrication
<b>10:30</b>		<b>Break</b>	
10:30	O-FT.2	Liu, Xiaoning	Power supply for the superconducting tf magnet system of east
10:50	O-FT.3	Sborchia, C.	Status of the Manufacture and Testing of the W7-X Magnets
11:10	O-FT.4	Ivanov, D. P.	Insulation of the Leads in Forcecooled Superconducting Magnets
11:30	O-FT.5	Rummel, Thomas	The power supply and coil protection system of WENDELSTEIN 7-X
11:50	O-FT.6	Fu, Peng	Quench Protection of PF Superconducting Coil System for the EAST Tokamak
<b>12:30</b>		<b>Lunch</b>	
13:30		Visit to Institute for Plasma Research	
18:00		<b>Return to Hotel</b>	

#### Friday February 4, 2005

<b>9:00</b>		<b>Heating and Current Drive (HCD)</b>	
9:00	I-HCD.1	Bora, D.	Ion Cyclotron Resonance Heating (ICRH) system for SST-1
9:30	I-HCD.3	Mattoo, S.K.	Long Pulse Characteristics of 5 MW Ion Source for 1.7 MW Neutral Beam Injector
10:00	O-HCD.1	Yoon, J. S.	Development of a Liquid Phase Shifter and a Liquid Stub Tuner for KSTAR
<b>10:20</b>		<b>Break</b>	
11:00	O-HCD.2	Bae, Y.D.	Enhancement of High-voltage and Long-pulse Capabilities of KSTAR ICRF Antenna by a Water-cooling
11:20	O-HCD.3	Sathyanarayana, K.	Commissioning of 82.6 GHz Electron Cyclotron Resonance Heating system on SST-1 tokamak
<b>12:30</b>		<b>Lunch</b>	
<b>13:15</b>		<b>Particle control and power exhaust (PC)</b>	
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
<b>15:10</b>		<b>Break</b>	
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
<b>16:10</b>		<b>Poster Session (All Posters)</b>	
18:10		End of Poster Session	
18:45		<b>Cultural Program</b>	

**Saturday February 5, 2005**

<b>9:00</b>		<b>Feedback control, theory and modelling of steady state plasma (SS, TH)</b>	
9:00	P-SS.1	Bucalossi, Jerome	Feedback control in steady state scenario in Fusion Machines
9:45	I-TH.1	Mioduszewski, P.K.	How Does Wall Recycling Evolve At Long-Pulse Operation?

<b>10:15</b>		<b>Break</b>	
10:45	I-TH.2	Budny, Robert	Time-Dependent, Integrated Modeling of Burning Plasmas
11:15	O-TH.1	Bandopadhyay, I.	Modeling of advanced plasma configurations in SST-1 tokamak

11:35 **Conclusion**

**12:30 Lunch**

13:30

**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