

Agenda of the 2nd Integrated Operation Scenarios Topical Group Meeting
Naka, JAEA, Naka, Japan, 31st March – 4th April 2009

31st, March 2009 (Tuesday)

8:30 – 9:10 Welcome and logistics

- Welcome T. Tsunematsu
- Logistics and announcement
- Check of Agenda: IOS S. Ide
- Check of Agenda: T&C S. Kaye

9:10 – 10:20 Opening session

- Introduction S. Kaye/S. Ide
- L-H power threshold and ELM control techniques: status experiments on MAST and JET C. Hidalgo
- ITER issues for ramp-up ramp-down/Simulations of rampup and rampdown in ITER C. Kessel
similarity discharges in C-Mod

10:40 – 11:00 Coffee break

11:00 – 12:30 Join session with TP

- TSC Simulation of ITER Plasma Termination Scenario with Stable H-L Mode Transition and Avoidance of Radiation Collapse Y. Nakamura
- Simulation of ITER current ramp-up scenarios by ASTRA and DINA codes V. Leonov
- Recent progress in the analysis and modelling of current ramp up experiments on JET I. Voitsekhovitch

12:30 – 13:30 Lunch

13:30 – 15:15 Join session with TP (cont'd)

- ITER ramp-up simulation by TASK code A. Fukuyama
- Transport simulation of current ramp-up & ramp-down X. Litaudon
- Experimental and model validation of ITER operation scenarios T. Luce
- Plans for modeling startup plasmas using PTRANSP R. Budny

15:15 – 15:45 Coffee break

15:45 – 17:45 Join session with TP (cont'd)

- Standardized transport model testing: I_p ramp-up in ITER similarity discharges D. Mikkelsen
- Status and Plans for ITER integrated modeling W. Houlberg
- Planning discussion on JEXs, data access, modeling, metrics S. Kaye/S. Ide
Plans and status of IOS-2.2 G. Sips
Transport questions for integrated modeling C. Kessel

18:00 *Bus to hotel*

19:30 – *Reception at Holiday-Inn Hotel*

1st, April 2009 (Wednesday)

8:30 – 9:50 Opening session

- ITER High Priority Research Needs
- Report IEA/ITPA WS (W69)

J. Snipes
S. Ide

9:50 – 10:10 Coffee break

10:10 – 12:30 Status of joint experiments reports and planning

- JET contributions to the ITPA IOS joint experiments
- Status and plans of related experiments on ASDEX-Upgrade
- Status and plans of related experiments on DIII-D Report on DIII-D IOS Joint Experiment Activity
- C-Mod Plans for ITPA/IOS Joint Experiments 2009-10
- Plans and status of IOS-3.2

G. Sips
J. Stober
T. Luce
C. Kessel
T. Luce

12:30 – 13:30 Lunch

13:30 – 15:30 Actuators – experiments and modeling

- Plans and status of IOS-4.1
- Present Choice of Heating and Current Drive Mix on ITER
- Comparisons of ITER plasma performance with various mixes of external heating
- ITER heating mix analysis
- Consideration on ITER H&CD systems

E. Joffrin
J. Snipes
R. Budny
V. Parail
A. Tuccillo

15:50 – 16:05 Coffee break

16:05 – 17:45 Actuators – experiments and modeling (cont'd)

- Off-axis Neutral Beam Current Drive experiment in DIII-D
- Analysis of NBCD experiments on JT-60U
- High Frequency Fast Wave Current Drive operation on ITER: scenarios, advanced TW Antennae and RF generator
- Present Status of ITER H/CD Simulation by the TASK Code

J-M Park
T. Suzuki
V. Vdovin
A. Fukuyama

18:00 *Bus to hotel*

2nd, April 2009 (Thursday)

8:30 – 10:20 ITER scenario modeling and development

- Assessment of NBI and LHRF Actuators for the ITER Scenario 4 Using the ACCOME Code P. Bonoli
- Update of the ITER Reference Scenarios A. Polevoi
- TGLF Simulations of DIII-D ITER similarity discharges and an introduction to the TGYRO flux matching turbulence code G. Staebler

10:45 – 11:00 Coffee break

11:00 – 12:30 ITER scenario modeling and development (cont'd)

- Status of ITER Steady-State scenario modeling M. Murakami
- ITER Steady State Simulation Benchmark J-M Park
- Integrated Tokamak Modeling in Russia S. Kononov
- Hybrid and Steady-state scenario simulation with TOPICS-IB N. Hayashi

12:30 – 13:30 Lunch

13:30 – 15:30 ITER scenario modeling and development (cont'd)

- Simulation of Wave Interactions with MHD (SWIM) D. Batchelor
- Simulation of ITER Steady State Operation Scenarios with ASTRA Y-S. Na
- New cyclic scenario for ITER steady-state operation G. Giruzzi
- Free-Boundary Rampup Benchmark C. Kessel
- F4E actions in the field of Scenario Studies M. Cavinato
- Update of the ITER Research Plan S. Ide

15:30 – 15:50 Coffee break

15:50 – 17:45 Discussion on activities of our group

- *Work plan*
- *Action list*
- *ITER High Priority Research Needs*

18:00 Bus to hotel

19:30 – Group dinner

3rd, April 2009 (Friday)

9:00 – 10:00 Actuators – remaining issues

- Second Harmonic ECH Pre-ionization Experiments in KSTAR Y-S. Na
- Plasma start up experiments on QUEST K. Hanada
- Pro/cons on counter-ECCD in ITER G. Giruzzi
- Effects of co- and counter-ECCD on improved H-modes in ASDEX Upgrade and implications for the launchers in ITER J. Stober
- Open discussion for recommendation

10:00 – 10:20 Coffee break

10:20 – 12:00 Integrated control

- Identification of the plasma response to NBI actuators in JT-60U from experimental data D. Moreau
- Control for ITER scenarios ? E. Joffrin
- Open discussion

12:00 – 13:00 Lunch

13:00 – 15:00 Breakout session

- *Joint Experiment*
- *Modeling*

15:00 – 15:30 Coffee break

15:30 – 17:00 Discussion on activities of our group (cont'd)

- Report of the breakout session: Joint Experiment T. Luce
- Report of the breakout session: Control E. Joffrin
- Report of the breakout session: Modeling C. Kessel
- *Short term Action list*
- *Towards next meeting*
- Summary of the meeting
- Feasibility study of an ECRH system for JET (EC4JET Project) G. Giruzzi

End of the Meeting

17:15 Bus to hotel

NEXT MEETING: ENEA, Frascati, 20 – 22/23 (TBD), October 2009

Participants

Ascasibar, E.	CIEMAT	EU
Cavinato, M.	Fusion For Energy	EU
Challis, C.D.	UKAEA	EU
Giruzzi, G.	CEA	EU
Joffrin, E.H.	EFDA	EU
Litaudon, X.	CEA	EU
Moreau, D.C.	CEA	EU
Parail, V.	UKAEA	EU
Sips, A.C.C.	EFDA	EU
Stober, J.	IPP	EU
Tuccillo, A.A.	ASSOCIATION ENEA/EURATOM	EU
Fukuyama, A.	Kyoto University	JA
Hanada, K.	Kyushu University	JA
Hayashi, N.	JAEA	JA
Honda, M.	JAEA	JA
Ide, S.	JAEA	JA
Miyamoto, S.	JAEA	JA
Nagasaki, K.	Kyoto University	JA
Nakamura, Y.	NAT	JA
Nakano, T.	JAEA	JA
Saito, K.	NIFS	JA
Suzuki, T.	JAEA	JA
Kim, S-S.	NFRI	KO
Na, Y-S.	SNU	KO
Konovalov, S.	Nuclear Fusion Institute, RRC “Kurchatov Institute”	RF
Leonov, V.	Nuclear Fusion Institute, RRC “Kurchatov Institute”	RF
Vdovin, V.	Nuclear Fusion Institute, RRC “Kurchatov Institute”	RF
Batchelor, D.A.	ORNL	US
Bonoli, P.T.	MIT	US
Budny, R.V.	Princeton University	US
Gates, D.A.	PPPL	US
Kessel, C.E.	PPPL	US
Luce, T.C.	GA	US
Murakami, M.	ORNL	US
Park, J.M.	ORNL	US
Staebler, G.M.	GA	US
Chuyanov, V.		IO
Oikawa, T.		IO
Polevoi, A.		IO
Snipes, J.A.		IO