



EUROPEAN FUSION DEVELOPMENT AGREEMENT

Task Force

INTEGRATED TOKAMAK MODELLING

*Working session FOM, 4-8 July 2011*

**INTEGRATED SCENARIO MODELLING,  
Working session 04-08 July 2011  
FOM, Utrecht, Netherlands**

**Presented by X LITAUDON & I  
VOITSEKHOVITCH**

TF Leader : G. Falchetto  
Deputies: R. Coelho, D. Coster

EFDA CSU Contact Person: D. Kalupin

- **Validation ETS JET hybrid 77922 J Ferreira, J. Bizarro, I Voitsekhovitch**
- **Benchmark of GL23 JETTO and CRONOS on JET #79630 (temperature, density) J. Citrin F. Koechl**
- **Current diffusion evolution in JET & ASDEX-U hybrid scenario J.Garcia, J. Citrin**
- **Momentum transport I Voitsekhovitch**
- **Sensitivity studies of initial plasma shape in ITER hybrid scenario & ramp-up studies D Hogeweij, Th Casper**
- **JET hybrid current ramp-down F. Koechl**
- **ITER hybrid current ramp-down J.Garcia**
- **Effect of density peaking & sensitivity studies F. Koechl**
- **Edge MHD stability studies J. Lonnroth**
- **Real time control hybrid ITER F. Liu, D. Moreau**
- **JT-60SA X. Litaudon**

## **Remote Meeting (sept-Dec 2011) tentative dates**

- **Wed. 07 sept 10h30-12**
- **Wed. 21 sept 10h30-12**
- **Wed. 12 Oct 10h30-12**
- **Wed. 26 Oct 10h30-12**
- **Third ISM, Culham**
  - 7-11 Nov (before JET General Planning meeting)
- **Wed. 30 Nov 10h30-12**
- **Wed. 14 Dec 10h30-12**

## **ISM Working session**

- **First ISM working session 07 March - 11 March**
- **Second ISM 04-08 July FOM**
  - at FOM Institute for Plasma Physics Rijnhuizen (<http://www.rijnhuizen.nl/en>), Netherlands
  - from Monday 4 July (9h am) up to Friday 08 July (14 pm)
  - Our Local Host is our colleague Dick Hogeweij
  - invitation letter for mobility support, could you tell us by the 03 June if you will participate : deadline 03 June
  - In your reply could you CC to [irina.Voitsekhovitch@ccfe.ac.uk](mailto:irina.Voitsekhovitch@ccfe.ac.uk) and [G.M.D.Hogeweij@rijnhuizen.nl](mailto:G.M.D.Hogeweij@rijnhuizen.nl)
  - Logistic Information (hotels, transportation ...) from the our Local Host will be sent soon.
- **Third ISM, Culham**
  - 7-11 Nov (before JET General Planning meeting)

## List of participant

- **CEA:**
  - Xavier Litaudon, [Xavier.litaudon@cea.fr](mailto:Xavier.litaudon@cea.fr)
  - Jeronimo Garcia, [jeronimo.garcia@cea.fr](mailto:jeronimo.garcia@cea.fr)
  - Didier Moreau [didier.moreau@cea.fr](mailto:didier.moreau@cea.fr)
  - Feng Liu [Feng.Liu@cea.fr](mailto:Feng.Liu@cea.fr)
- **CCFE**
  - Irina Voitsekhovitch, [irina.voitsekhovitch@ccfe.ac.uk](mailto:irina.voitsekhovitch@ccfe.ac.uk)
- **FOM (on site)**
  - Dick Hogeweij, [G.M.D.Hogeweij@rijnhuizen.nl](mailto:G.M.D.Hogeweij@rijnhuizen.nl)
  - Jonathan Citrin, [J.Citrin@rijnhuizen.nl](mailto:J.Citrin@rijnhuizen.nl)
- **IST**
  - João P. S. Bizarro, [bizarro@ipfn.ist.utl.pt](mailto:bizarro@ipfn.ist.utl.pt)
  - Jorge Ferreira [jferreira@ipfn.ist.utl.pt](mailto:jferreira@ipfn.ist.utl.pt)
- **TEKES**
  - Johnny LONNROTH, [Johnny.Lonnroth@ccfe.ac.uk](mailto:Johnny.Lonnroth@ccfe.ac.uk)
- **ÖAW**
  - Florian Koechl, [Florian.Koechl@ccfe.ac.uk](mailto:Florian.Koechl@ccfe.ac.uk)
- **ITER-IO :**
  - Th Casper, [Thomas.Casper@iter.org](mailto:Thomas.Casper@iter.org)

## **Activities to be rediscussed after afternoon session**

- **Act -1**
  - Finalise benchmark exercise on JET 77922 with NCLASS: J P. S. Bizarro, J Ferreira, F. Koechl, I Voitsekhovitch
- **Act-2**
  - Current diffusion evolution in JET & ASDEX-U hybrid scenario, J. Garcia, J. Citrin
  - JET 77922 current ramp-down F. Koechl, P. Belo
  - Select discharges for JET & DIII-D similarity experiments X. Litaudon, I. Voitsekhovitch (?)
  - JET / JT-60U modelling
  - Momentum transport J. Ferreira, I Voitsekhovitch, J. Garcia
  - Real time control Tore Supra D. Moreau, F. Liu
  - Benchmark of GL23 JETTO and CRONOS on JET #79630 (temperature, density) F. Koechl, J. Citrin
- **Act-3**
  - Sensitivity studies of initial plasma shape in hybrid scenario & ramp-up studies, faster ramp-up + (Freebie) Free boundary equilibrium (post-processing) Dick Hogeweij, Th Casper , J. F Artaud
  - ITER current ramp-down F. Koechl, P. Belo, J. Lonroth, Th Casper
  - Effect of density peaking & sensitivity studies L. Garzotti (remotely), J. Garcia, F. Koechl, Edge MHD stability studies J Lonroth, L. Garzotti,

- **EPS-2011**
  - ITER director Motojima the ITM posters expo
  - C. Konz oral + ISM posters
- **"ITM "review" meeting on July 28th**
  - organization and scope of ITM activity
  - Review of ITM achievements 30' TFL
  - Physical problems 20'
    - *Highlights on ITM workflows and capabilities, including scenario modelling.*
  - Implementation of those within the ITM-TF infrastructure 20'
  - Present IM capabilities and prospects for the next few years 20'
  - Rendering ITM tools available for modelling on experimental data 20'
  - Lessons learned and suggestions for the future 20'

## **Meeting**

- ***ITM general meeting 12-16 sept***
- ***ITPA Transport ( Cadarache) 05-07 Oct***
- ***13th international Workshop on H-mode Physics and Transport Barriers 10-12 Oct***
  - TOPIC / Integrated plasma scenarios for ITER and a reactor: experimental and theoretical studies, including self-stabilising transport approach
- ***ITPA- IOS meetings, Kyoto, 18-21 Oct***
- ***International Toki Conference, 28 Nov- 01 Dec***



## **The 21st International Toki Conference (ITC-21) will be held at Toki**

- **The 21st International Toki Conference (ITC-21) will be held at Toki, Gifu, Japan from November 28 to December 1, 2011. Abstract submission can be made starting July 8, 2011 through the Conference web site (<http://itc.nifs.ac.jp/>).**

- **On Integration of Fusion Science and Technology for Steady State Operation**
- **LIST OF TOPICS**
  - 8. Modeling and simulation for fusion plasma
- **Important Dates:**
- **Start of on-line abstract submission: July 8, 2011**
- **Deadline for abstract submission: August 20, 2011**
- **Notification of abstract acceptance: September 10, 2011**
- **Deadline for registration: October 10, 2011**
- **Deadline for paper submission: December 1, 2011**