



EFDA

EUROPEAN FUSION DEVELOPMENT AGREEMENT

Task Force  
INTEGRATED TOKAMAK MODELLING

*Remote meeting, 11 may 2011*

# **INTEGRATED SCENARIO MODELLING, Introduction meeting 11 May 2011**

**Presented by X LITAUDON & I  
VOITSEKHOVITCH**

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

EFDA CSU Contact Person: D. Kalupin

- **1) X. Litaudon/ Voitsekhovitch Introduction**
  
- **3) V. Basiuk, J. Ferreira, I. Voitsekhovitch, D. Kalupin et al : preparation of the ISM contribution related to Act 1 "Support Validation of the European Transport Solver (ETS) " to the next ITM code camp at Helsinki, 16-27 May.**
  - I recall that we have agreed on the benchmark exercise using the JET hybrid pulse #77922 (cf the slide attached) . We are aiming at comparing ETS, JETTO, CRONOS, ASTRA
  
- **2) G. Garcia Modelling of current diffusion in long pulse hybrid discharges (JET)**

## Remote meeting

### **Regular remote meeting on Wednesday morning 10h30-12h00 CET (09h30-11h00 GMT) :**

➤ **Wed 11 May**

- Status of benchmark exercise using the JET hybrid pulse #77922 (ETS, JETTO, CRONOS, ASTRA)
- Preparation of next ITM code camp at Helsinki, 16-27 May

➤ **Wed 25 May**

➤ **Wed 8 June**

- EPS rehearsals

➤ **Wed 22 June**

- preparation of ISM working session July 4-8

## ISM Working session [2/2]

- **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 (10 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) ?
  - or 21-25 Nov ?

## **JT-60SA EU physics activities**

- **EFDA activity within the ITER physics department ( D. Borba as head of department)**
- **Coordination physics activity: G. Giruzzi ( letter of F. Romanelli to HRU 20 April) in liaison with P. Barabaschi (F4E)**
- **2011 activity : revision of the research plan for JT-60SA by nov. 2011**
- **dedicated meeting 23-24 May 2011 at Frascati**
- **May 13 : express interest indicating which chapter on which you plan to contribute**
- **WP-2011: ISM is involved in the scenario modelling : Define operational space : 0-D senario modelling**

- **At last ITPA-IOs meeting, we have agreed with Ide on a collaboration agreement on “Comparison and modeling of JT-60U and JET plasmas in typical operational domains”**
  - Establish plasma modeling Standard H-mode, Advanced Inductive and Steady State
  - select typical discharges in each domains among the JT-60U and JET discharges, compare the plasma performance and characteristics and benchmark with codes and models developed in Japan & EU.
  
- **The agreement should be finalised by adding the names of the codes and the list of JET pulses.**

## Activity- 1

# Support Validation of the ETS

<b>Title</b>	<b>Start date</b>	<b>End Date</b>	<b>Deliverable(s) (precise definition)</b>	<b>Dependent activities</b>
Benchmarking of NCLASS	01/01/11	30/06/11	ASTRA, CRONOS, JETTO simulations	IMP3-ACT1, IMP4-ACT3 (NCLASS in ETS)
Benchmarking of Sauter neoclassical model	01/01/11	30/06/11	TRANSP runs for selected parametric domain	IMP3-ACT1, IMP4-ACT3
Benchmarking/sharing of transport models	01/01/11	31/08/11	New transport model in ETS. ASTRA, CRONOS, JETTO, simulations	IMP3-ACT1
Benchmarking of ETS impurity solver	01/01/11	28/02/11	JETTO/SANCO runs: benchmarking of reaction rates and radiated power	IMP3-ACT1,2

## **Working groups: ACT1**

- **ETS V&V (Te, Ti, j, equilibrium): Vincent Basiuk, Joao Bizarro, Emiliano Fable, Jorge Ferreira, Irina Voitsekhovitch, Denis Kalupin, David Coster**
- **ETS/impurity: Irena Ivanova-Stanik, Sara Moradi, IMP3, AMNS**