

# **Third ITER International Summer School: Plasma Surface Interaction**

**Institut d'Etudes Politiques, AIX EN PROVENCE  
22 -26 June 2009**

## **Monday June 22<sup>nd</sup>**

**8 :00 – 9 :00: Registration**

**9 :00 – 9:30: Opening ceremony chaired by Prof. Jean-Paul Caverni, President of Université de Provence in presence of Mr Ambassador Kaname Ikeda, Director General of ITER organisation.**

**9:30 – 11:00: E. Tsitrone (IRFM, CEA Cadarache) “General Overview of Plasma Surface Interaction”**

**11:00 – 11:30: Coffee Break**

**11:30 – 13:00: R. Pitts (ITER Organisation) “Key plasma-wall interaction physics issues for ITER”**

**13:00 – 14:30: Lunch**

**14:30 – 16:00: M. Merola (ITER Organisation) “Design of ITER facing components”**

**16:00 – 18:30: Poster Session and Coffee**

**18:45: Welcome reception at the Aix en Provence City Hall**

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## **Tuesday June 23<sup>rd</sup>**

**8 :30 – 10 :00: Wojtek Fundamenski (Euratom/UKAEA Fusion Association ) “Power and particle exhaust in tokamaks”**

**10:00 – 11:00: Poster Session and Coffee**

**11:00 – 12:30: A. Loarte (ITER Organisation) “ Physics of transient power loads on plasma facing components in ITER”**

**12:30 – 13:30 Lunch**

**13:30 – 15:00: R. Causey (Sandia National Lab, USA) “Fuel Retention in Fusion Reactors”D.**

15:00 – 16:30: **T. Tanabe** (Kyushu University, Japan) “tritium handling Issues”

16:30 – 17:00: **Poster Session and Coffee**

17:00 – 18:30: **P. Andrew** (ITER Organisation) “Key issues relating to erosion, dust production and tritium retention in ITER”

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## **Wednesday June 24<sup>th</sup>**

8 :00 – 9:30: **Naujoks** (Max Planck Institute, Greiswald, Germany) “General Criteria and Operation Limits of a Steady-State Fusion Reactor with Respect to Plasma-Material Interaction”

9:30 – 09:45: **Coffee Break**

09:45 – 11:15: **L. L. Snead** (ORNL, USA) “The Effect of Neutron Irradiation on Candidate First Wall and Diverter Materials”

11:15– 12:45: **J. Roth** (IPP, Garching, Germany) “Erosion Processes due to energetic particle-surface interaction”

13:15            **Departure by bus to Cadarache for the “TORE SUPRA and ITER site Visit” for those who registered for the visit and free afternoon for the others.**

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20:00– 22:00 **Panel Discussion “What Materials for ITER and DEMO???” chaired by D. Campbell (ITER Organisation).**

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## **Thursday June 25<sup>th</sup>**

8 :30 – 10 :00: **K. Krieger** ( IPP, Garching, Germany) “Material transport in the frame of PSI”

10:00 – 10:30: **Poster Session and Coffee**

10:30 – 12:00: **J. Strachan** (Princeton Univ, USA) “A Study of Impurity Sources, Contamination, and Migration”

12:00 – 13:00 **Lunch**

13:00 – 14:30: **R. Neu** (IPP, Garching, Germany) “Benefits and challenges of the use of High-Z Plasma Facing Materials in Fusion Devices”

14:30– 15:30: **T. Takizuka** (JAEA, Japan) “Modelling and simulation of SOL-divertor plasmas”

15:30 – 16:30: **M. Kobayashi** (NIFS, Japan) “Modelling of divertor plasma transport in

stochastic magnetic boundary”

16:30 – 17:30: **Poster Session and Coffee**

17:30 – 18:30: **K. Ohya** (University of Tokushima, Japan) “Integrated Numerical simulations and modelling of erosion and deposition on plasma facing wall”

20:00: **BANQUET at Hotel AQUABELLA in Aix en Provence (23 rue des Etuves)**

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## **Friday June 26<sup>th</sup>**

8 :30 – 10 :00: **S. Pitcher** (ITER Organisation) “Edge and Divertor measurement challenges in ITER”

10:00 – 10:30: **Poster Session and Coffee**

10:30 – 12:00: **D. Majeski** (Princeton University, USA) “Liquid lithium issues”.

12:00 – 13:30: **Lunch**

13:30 – 15:00: **Y. Ueda** (Osaka University, Japan) “Material mixing of tungsten with low Z materials”

15:00 – 16:00: **N. Yoshida** (Kyushu University, Japan): “Nanosopic PWI in Plasma Facing Materials”

16:00 – 16:15: **Poster Session and Coffee**

16:15-17:15: **G. Tynan**, (U.C.S.D, USA): “PMI of Mixed Materials in ITER”.

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17:15 – 17:45 **Closing ceremony of ITER School**

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