

# 15th International Workshop on **Plasma Edge Theory in Fusion Devices**



**PET15**

9 – 11 September, 2015  
Nara Prefectural New Public Hall  
Nara, Japan

**First Announcement**

## **INVITATION**

You are cordially invited to attend the 15th International Workshop on Plasma Edge Theory in Fusion Devices to be held in Nara, Japan, from 9 (Wednesday) to 11 (Friday) September, 2015.

## **SUBJECT MATTER**

The 15th International Workshop on Plasma Edge Theory in Fusion Devices is organised by Local Organizing Committee under the auspices of Japan Atomic Energy Agency and National Institute for Fusion Science, Japan. Like the fourteen preceding workshops, this workshop addresses plasma theory of the edge region in magnetic confinement fusion devices. It will reflect the present status of the theory for the boundary layer of fusion plasmas. The emphasis will be on the development of theory and of appropriate numerical methods, with a secondary interest in self-consistent modelling of experimental data (including also empirical elements).

The following topics are intended to be covered by invited and contributed lectures:

### **BASIC EDGE PLASMA THEORY**

- Magnetic boundary structure including magnetic stochasticity
- Sheath effects
- Edge transport parallel and perpendicular to magnetic field
- Electric field effects
- Instabilities and turbulence
- Neutrals and multi-ion theories, radiation
- Plasma detachment including cold and dense buffer plasmas
- New edge-relevant numerical and computational methods

### **MODELS OF SPECIAL PHENOMENA AND EDGE CONTROL**

- Hot spots, radiative cooling
- L-H transition, blobs, ELMs (including control), and pedestal structure
- Flow patterns, momentum transport, and impurity retention
- Biasing and shaping of targets
- Dusty effects

### **INTEGRATED EDGE PLASMA MODELLING**

- Kinetic and Monte Carlo codes
- Multi-fluid codes
- Effects of plasma edge/core coupling
- Validation of edge plasma theories

## **CONFERENCE STYLE**

The workshop will consist of invited lectures, oral presentations and poster contributions. Contributed papers will be mainly presented as posters. It is recommended that orally presented papers are also accompanied by a poster.

## **PARTICIPATION AND LANGUAGE**

The number of attendees of the workshop will be limited to 80. The workshop language is English.

## **CALL FOR PAPERS**

Contributions to any of the given topics are welcome. Authors are invited to submit one-page abstracts typed on A4 size paper, describing the most important aspects of the work to be reported.

The instruction and templates will be available on the workshop web site, <http://bpsl.nucleng.kyoto-u.ac.jp/pet15/>

The abstract should be submitted through the workshop web site as a Portable Document Format (PDF) file. The abstracts must be received no later than 20 March 2015. Authors will be notified on the acceptance of their contribution by 24 April 2015.

## **PROCEEDINGS**

The invited and accepted contributed papers will be included in the proceedings of the workshop and published in the journal "Contributions to Plasma Physics". The papers will go through the usual refereeing process. Detailed instructions for the preparation of the manuscripts and posters will be mailed together with the acceptance letter.

## **WORKSHOP LOCATION**

The workshop will be held in the ancient Japanese Capital Nara with the meetings taking place in an elegant Nara Prefectural New Public Hall (Shin-Kokaido, <http://www.shinkokaido.jp/en/> ) situated at the foot of Wakakusa-Yama hill.

## **SOCIAL PROGRAM**

A banquet will take place on 10 September, 2015 (Thursday), evening. Excursion visiting historical heritages in Nara area is under planning.

## **ACCOMMODATION AND DIRECTIONS**

Participants will be accommodated in hotels close to the conference site. Full details will be given in the Second Announcement and on the workshop web site. Detailed information on getting to Nara and the Nara Prefectural New Public Hall will be given also on the web site.

## IMPORTANT DATES

January 2015	Second Announcement
20 March 2015	Deadline for submission of abstracts
24 April 2015	Information to contributors
29 June 2015	Deadline for registration
9 September 2015	Deadline for manuscripts
9–11 September 2015	Workshop

## INTERIM INTERNATIONAL SCIENCE COMMITTEE

Y. L. Igitkhanov (Chair)	KIT, Karlsruhe, Germany
D. Kh. Morozov	RCC Kurchatov Institute, Moscow, Russia
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## LOCAL ORGANIZING COMMITTEE

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T. Takizuka	Osaka University
Y. Tomita	SWIP

## WORKSHOP WEB SITE

<http://bpsi.nucleng.kyoto-u.ac.jp/pet15/>

## LOC MAIL ADDRESS

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