

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



**PET15**

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

**Second Announcement  
Call for Papers**

## 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 Organising 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:

### 1. BASIC EDGE PLASMA THEORY

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

### 2. MODELS OF SPECIAL PHENOMENA AND EDGE CONTROL

- 2.1 Hot spots, radiative cooling
- 2.2 L-H transition, blobs, ELMs (incl. control), and pedestal structure
- 2.3 Flow patterns, momentum transport, and impurity retention
- 2.4 Biasing and shaping of targets
- 2.5 Dusty effects

### 3. INTEGRATED EDGE PLASMA MODELLING

- 3.1 Kinetic and Monte Carlo codes
- 3.2 Multi-fluid codes
- 3.3 Effects of plasma edge/core coupling
- 3.4 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.

## INVITED TALKS

<b>R. Doerner</b>	UCSD	PMI issues in magnetic fusion devices: Challenges for the theory
<b>H. Bufferand</b>	CEA IRFM	A new look on various aspects of transport code physics
<b>J. Cheng</b>	SWIP	Models of special phenomena and edge control L-I-H transition
<b>W. Stacey</b>	GA Tech	Theory of non-diffusive and non-axisymmetric transport in the edge
<b>B. Scott</b>	IPP	Consideration of issues arising in edge gyrokinetics
<b>G. Kawamura</b>	NIFS	Plasma and neutral transport analysis of LHD peripheral regions with three dimensional effects

## 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.

## REGISTRATION AND PAYMENT

The participants are asked to register through the workshop's website <http://bpsl.nucleng.kyoto-u.ac.jp/pet15/>

and pay the registration fee by credit card payment (Master Card/VISA) through Paypal or a bank transfer by 29 June 2015.

Workshop registration fee

Regular early registration (until 31 May 2015)	40,000 JPY
Student early registration (until 31 May 2015)	30,000 JPY
Regular late registration (after 31 May 2015)	45,000 JPY
Student late registration (after 31 May 2015)	35,000 JPY

The fee covers the costs of coffee breaks, social events (banquet and an excursion), book of abstracts and proceedings. An accompanying person should be indicated on registration. Should she/he wish to attend the social events additional payment (15,000 JPY) would be necessary.

Here are the bank transfer details

Bank name: SUMITOMO MITSUI BANKING CORPORATION  
 SWIFT code: SMBCJPJT  
 Branch name: KYOTO BRANCH  
 Branch address: 8, KARASUMA-HIGASHIIRU-NAGINATABOKOCHO,  
 SHIJODORI, SHIMOGYO-KU, KYOTO-SHI,  
 KYOTO, JAPAN  
 Account name: PET15 KOKUNAI-SOSHIKI-IINKAI IINCHO  
 FUKUYAMA ATSUSHI  
 Account address: MURASAKINO-MONZENCHO 56-3-301,  
 KITA-KU, KYOTO 603-8216, JAPAN  
 Account number: 496-9088146  
 Phone number: 075-495-9131

Please remember to give the name of the participant and PET15, the name of the workshop, as the reason for payment. The payment for the registration fee must be free of bank charges to the receiver.

If a registration is cancelled by the 29 June 2015 a full fee payed will be returned. In case of later cancellation there will be no reimbursement. A participant, however, can transfer his registration to a colleague from the same organisation and will be charged no extra fee for that.

## PROCEEDINGS

The Book of Abstracts will be handed to the participants on the first day of the workshop. 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 expected length of contributions is 8-10 pages for invited and 5-6 pages in case of regular papers. 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 and provided on the workshop web site.

## 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 World Cultural Heritage (Horyuji temple) and Japanese taste (Jikoin garden and tea ceremony) in Nara area will be organised.

## ACCOMMODATION AND DIRECTIONS

Participants are requested to choose and book a hotel room on their own. A list of hotels close to the conference site will be 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.

**VISAS**

The participants are asked to establish whether they need a visa (e.g. on the site, <http://www.jnto.go.jp/eng/arrange/essential/visa.html>) and if so, submit Japanese Visa application to the Japanese Embassy or Consulate in your country. If you need an invitation letter, please contact A. Fukuyama ([pet15@p-grp.nucleng.kyoto-u.ac.jp](mailto:pet15@p-grp.nucleng.kyoto-u.ac.jp)).

**IMPORTANT DATES**

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
V. Rozhansky	SPbPU, St.Petersburg, Russia
M. Yagi	JAEA, Rokkasho, Japan
R. Zagorski	IPPLM, Warsaw, Poland
D. F. Düchs (Hon.)	Munich, Germany

**LOCAL ORGANIZING COMMITTEE**

A. Fukuyama (Chair)	Kyoto University
M. Yagi (Scientific Secretary)	JAEA
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N. Miyato	JAEA
T. Morisaki	NIFS
N. Ohno	Nagoya University
T. Takizuka	Osaka University
Y. Tomita	SWIP

**WORKSHOP WEB SITE**

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

**LOC MAIL ADDRESS**

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