



Atoms for Peace and Development

الوكالة الدولية للطاقة الذرية

国际原子能机构

International Atomic Energy Agency

Agence internationale de l'énergie atomique

Международное агентство по атомной энергии

Organismo Internacional de Energía Atómica

Vienna International Centre, PO Box 100, 1400 Vienna, Austria

Phone: (+43 1) 2600 • Fax: (+43 1) 26007

Email: Official.Mail@iaea.org • Internet: <https://www.iaea.org>

In reply please refer to: EVT1904279

Dial directly to extension: (+43 1) 2600-26386

The Secretariat of the International Atomic Energy Agency (IAEA) presents its compliments to the IAEA's Member States and has the honour to draw their attention to the **17th Technical Meeting on Energetic Particles and Theory of Plasma Instabilities in Magnetic Confinement Fusion** (hereinafter referred to as "event") to be held virtually via Cisco Webex from **6 to 9 December 2021**.

The purpose of the event is to provide a forum to discuss the status of experimental and theoretical work on suprathreshold electrons and ions, as well as to discuss theoretical and computational physics issues relevant to burning plasmas in magnetic confinement fusion research.

The attached Information Sheet provides further details of the event.

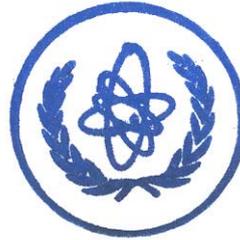
The event will be held in English.

Member States are invited to designate one or more participants to represent the Government at this event. Member States are strongly encouraged to identify suitable women participants.

Designations should be submitted to the IAEA through the competent national authority (Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) not later than **13 September 2021** using the attached Participation Form (Form A). Completed and authorized Participation Forms should be sent either by email to: Official.Mail@iaea.org or by fax to: +43 1 26007 (no hard copies needed). Copies should be sent by email to the Scientific Secretary of the event, Mr Matteo Barbarino, Division of Physical and Chemical Sciences, Department of Nuclear Sciences and Applications (Email: M.Barbarino@iaea.org), and to the Administrative Secretary, Ms Marion Linter (Email: M.Linter@iaea.org). The Scientific Secretary of the event will liaise with the participants directly concerning further arrangements, as appropriate, once the official designations have been received.

The IAEA takes no responsibility for, and the provider of the virtual meeting services has represented and warranted that the Services shall not contain, and that no end user shall receive from the software used to hold the virtual meeting, any virus, worm, trap door, back door, timer, clock, counter or other limiting routine, instruction or design, or other malicious, illicit or similar unrequested code, including surveillance software or routines which may, or is designed to, permit access by any person, or on its own, to erase, or otherwise harm or modify any data or any system, server, facility or other infrastructure of any end user (collectively, a "Disabling Code").

The Secretariat of the International Atomic Energy Agency avails itself of this opportunity to renew to the IAEA's Member States the assurances of its highest consideration.



2021-04-29

Enclosures: Information Sheet

Participation Form (Form A)

Form for Submission of a Paper (Form B)



17th Technical Meeting on Energetic Particles and Theory of Plasma Instabilities in Magnetic Confinement Fusion

Virtual Event

6–9 December 2021

Ref. No.: EVT1904279

Information Sheet

Introduction

The International Atomic Energy Agency (IAEA) fosters international collaboration and coordination to help close the existing gaps in physics, technology and safety, and move forward in developing the peaceful use of fusion energy. IAEA's activities in this field cover, among others, plasma physics and fusion energy research, technologies and materials, both for magnetic and inertial confinement fusion.

The main objective of fusion technology development is to deliver a safe, economical and essentially unlimited energy source. While considerable progress has been made during the last few years, there is still a great deal of research and development needed.

In this regard, energetic particle physics plays a crucial role in nuclear fusion research and, in particular, with the operation of ITER on the horizon, worldwide attention is turning to the physics of burning fusion plasmas.

Understanding confinement and transport properties of energetic particles in magnetically confined plasmas, and how the presence of fast ions impacts the global plasma transport is key to achieve high fusion power and to avoid damage of plasma facing components in ITER and next step fusion devices. Energetic particles play in fact a critical role for the good performance of fusion reactors, but they also represent a source of free energy to drive instabilities. Likewise, advances in understanding of multiscale physics and instabilities in burning plasmas and enhanced modelling capabilities of such complex physical processes are of high importance to fusion's success as an energy source.

Because of the importance of these topics, the IAEA organizes meetings on energetic particles (since 1989) and plasma instabilities (since 2002) in order to foster the exchange of scientific and technical results on the behaviour of energetic particles in future fusion reactor plasmas. The role of these forums has become increasingly important for the international community since burning plasma projects such as ITER are in preparation.

Objectives

The event aims to provide a forum to discuss the status of experimental and theoretical work on suprathermal electrons and ions, as well as to discuss theoretical and computational physics issues relevant to burning plasmas in magnetic confinement fusion research.

Target Audience

The event aims to bring together junior and senior scientific fusion project leaders, plasma physicists, including theoreticians and experimentalists, and experts in the field of energetic particles and plasma instabilities in magnetic confinement fusion.

Working Language(s)

The working language of the event will be English. All communication and papers must be sent to the IAEA in English. No simultaneous interpretation will be provided.

Structure and Topics

The programme will consist of sessions dedicated to oral talks. A Programme Committee made up of a representative international membership will be responsible for selecting the oral talks, as well as for the overall scientific content of the event.

The sessions will cover the following topics:

- **Alpha Particles Physics**
- **Transport of Energetic Particles**
- **Effects of Energetic Particles in Magnetic Confinement Fusion Devices**

- **Collective Phenomena (Alfvén eigenmodes, energetic particle modes and others)**
- **Runaway Electrons and Disruptions**
- **Diagnostics for Energetic Particles**
- **Control of Energetic Particle Confinement**
- **Multiscale Physics and Instabilities in Burning Plasmas**

Participation and Registration

All persons wishing to participate in the event have to be designated by an IAEA Member State or should be members of organizations that have been invited to attend.

In order to be designated by an IAEA Member State, participants are requested to send the **Participation Form (Form A)** to their competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) for onward transmission to the IAEA by **13 September 2021**. Participants who are members of an organization invited to attend are requested to send the **Participation Form (Form A)** through their organization to the IAEA by the above deadline.

Selected participants will be informed in due course on the procedures to be followed with regard to administrative and technical matters.

Papers and Presentations

The IAEA encourages participants to give presentations on the work of their respective institutions that falls under the topics listed above.

Participants who wish to give presentations are requested to submit an abstract of their work. The abstract will be reviewed as part of the selection process for oral presentations. The abstract should be submitted through IAEA-INDICO by **6 September 2021**. Abstracts may contain figures and graphics. Instructions on how to upload the abstracts will be available on the IAEA-INDICO website.

Authors will be notified by email by **6 October 2021** as to whether their abstracts have been accepted.

In addition, participants have to submit the abstract together with the **Participation Form (Form A)** and the attached **Form for Submission of a Paper (Form B)** to their competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) or their organization for onward transmission to the IAEA not later than **13 September 2021**.

Key Deadlines and Dates

6 September 2021	Deadline for submission of abstracts through IAEA-INDICO
13 September 2021	Deadline for submission of Participation Form (Form A) and Form for Submission of a Paper (Form B) through the official channels
6 October 2021	Notification of acceptance of abstracts
6 December 2021	Event begins
9 December 2021	Event ends

Programme Committee

The Programme Committee is composed of the following members:

Mr William Heidbrink (Chair)	United States
Mr Boris Breizman	United States
Mr Huishan Cai	China
Mr Wei Chen	China
Mr Ambrogio Fasoli	Switzerland
Mr Eric Fredrickson	United States
Ms Tunde Fulop	Sweden
Mr Taik Soo Hahm	Republic of Korea
Mr Matthew Hole	Australia
Mr Yaroslav Kolesnichenko	Ukraine
Ms Taina Kurki-Suonio	Finland
Mr Philipp Lauber	Germany
Mr Simon Pinches	ITER Organization
Mr Sergei Sharapov	United Kingdom
Mr Kouji Shinohara	Japan
Mr Yasushi Todo	Japan
Mr Masatoshi Yagi	Japan
Mr Gregorio Vlad	Italy

IAEA Contacts

Scientific Secretary:

Mr Matteo Barbarino

Division of Physical and Chemical Sciences
Department of Nuclear Sciences and Applications
International Atomic Energy Agency
Vienna International Centre
PO Box 100
1400 VIENNA
AUSTRIA

Tel.: +43 1 2600 26386

Fax: +43 1 26007

Email: M.Barbarino@iaea.org

Administrative Secretary:

Ms Marion Linter

Division of Physical and Chemical Sciences
Department of Nuclear Sciences and Applications
International Atomic Energy Agency
Vienna International Centre
PO Box 100
1400 VIENNA
AUSTRIA

Tel.: +43 1 2600 25119

Fax: +43 1 26007

Email: M.Linter@iaea.org

Subsequent correspondence on scientific matters should be sent to the Scientific Secretary and correspondence on other matters related to the event to the Administrative Secretary.

Event Web Page

Participants are encouraged to visit the event web page regularly to check for new or updated information regarding the meeting:

IAEA meeting web page:

<https://www.iaea.org/events/evt1904279>

IAEA-INDICO:

<https://conferences.iaea.org/event/243/>

Participation Form

17th Technical Meeting on Energetic Particles and Theory of Plasma Instabilities in Magnetic Confinement Fusion

Virtual Event

6–9 December 2021

To be completed by the participant and sent to the competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA, or National Atomic Energy Authority) of his/her country for subsequent transmission to the International Atomic Energy Agency (IAEA) either by email to: Official.Mail@iaea.org or by fax to: +43 1 26007 (no hard copies needed). Please also send a copy by email to the Scientific Secretary M.Barbarino@iaea.org and to the Administrative Secretary M.Linter@iaea.org.

Participants who are members of an invited organization can submit this form to their organization for subsequent transmission to the IAEA.

Deadline for receipt by IAEA through official channels: 13 September 2021

Family name(s): (same as in passport)	First name(s): (same as in passport)	Mr/Ms
Institution:		
Full address:		
Tel. (Fax):		
Email:		
Nationality:	Representing following Member State/non-Member State/entity or invited organization:	
If/as applicable:		
Do you intend to submit a paper?	Yes	No
Would you prefer to present your paper as a poster?	Yes	No
Title:		



Form for Submission of a Paper

17th Technical Meeting on Energetic Particles and Theory of Plasma Instabilities in Magnetic Confinement Fusion

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Participants who are members of an invited organization can submit this form to their organization for subsequent transmission to the IAEA.

Deadline for receipt by IAEA through official channels: 13 September 2021

Title of the paper:		
If applicable: Abstract ID in IAEA-INDICO:		
Family name(s) and first name(s) of all author(s): e.g. Smith, John	Scientific establishment(s) in which the work has been carried out	City/Country
1.		
2.		
3.		
Family name and first name(s) of author presenting the paper: e.g. Smith, John	Mr/Ms:	
Mailing address:		
Tel. (Fax):		
Email:		

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Furthermore, I herewith declare:

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that the material submitted to the IAEA does not contain any libellous or other unlawful statements and does not contain any materials that violate any personal or proprietary rights of any person or entity.

Date:

Signature of main author: