



Átomos para la paz y el desarrollo

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

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La Secretaría del Organismo Internacional de Energía Atómica (OIEA) saluda a los Estados Miembros del OIEA y tiene el honor de señalar a su atención la celebración de la **Reunión Técnica sobre Nuevas Tendencias y Avances en la Microdosimetría y sus Aplicaciones** (denominado en adelante el “evento”), que tuvo que posponerse debido al brote de COVID-19 y que ahora tendrá lugar de forma virtual mediante Cisco Webex del **27 al 30 de octubre de 2020**.

La finalidad del evento es dar a conocer los avances habidos en el desarrollo de la microdosimetría y su aplicación en los ámbitos de la radiobiología, la práctica clínica de la radioterapia contemporánea y la protección radiológica.

En la reseña informativa adjunta se ofrecen más detalles sobre el evento.

El evento se celebrará en inglés.

Se informa a los Estados Miembros de que las designaciones que ya se han recibido para este evento seguirán siendo válidas. Se invita a los Estados Miembros que no hayan presentado ninguna designación o que deseen cambiarla a que designen a una o más personas para que participen en este evento en representación de su Gobierno, y se los alienta encarecidamente a que seleccionen con ese fin a mujeres calificadas.

Las designaciones deben presentarse al OIEA por conducto de la autoridad nacional competente (el Ministerio de Relaciones Exteriores, la Misión Permanente ante el OIEA o la Autoridad Nacional de Energía Atómica), a más tardar el 11 de septiembre de 2020, por medio del formulario de participación adjunto (Formulario A). Los formularios de participación debidamente cumplimentados y autorizados deben enviarse por correo electrónico a la dirección Official.Mail@iaea.org, o por fax al número: +43 1 26007 (no se precisan copias impresas). Asimismo, han de enviarse copias por correo electrónico a los Secretarios Científicos del evento, Sr. Natko Skukan (correo electrónico: N.Skukan@iaea.org), División de Ciencias Físicas y Químicas y Sr. Oleg Belyakov (correo electrónico: O.Belyakov@iaea.org), División de Salud Humana, ambos del Departamento de Ciencias y Aplicaciones Nucleares, y a la Secretaria Administrativa, Sra. Ragdaa Attia (correo electrónico: R.Attia@iaea.org). Una vez recibidas las designaciones oficiales, los Secretarios Científicos del evento contactarán directamente a los participantes en relación con otras cuestiones de organización, según proceda.

El OIEA no se hace responsable de virus informáticos, gusanos, troyanos, puertas traseras, temporizadores, relojes, contadores o cualquier otra rutina, instrucción o diseño que limiten el funcionamiento, u otro código no solicitado malicioso, ilícito o similar, incluidos programas de vigilancia o rutinas que puedan permitir a cualquier persona, o por iniciativa propia, el acceso con el objetivo de borrar, o dañar o modificar de cualquier otro modo datos o sistemas, servidores, instalaciones u otra infraestructura del usuario final (colectivamente, “código inhabilitante”). Asimismo, el proveedor de los

servicios para la reunión virtual ha asegurado y garantizado que los Servicios no contendrán, ni ningún usuario final recibirá del programa informático empleado para celebrar la reunión virtual, ninguno de estos códigos inhabilitantes.

La Secretaría del Organismo Internacional de Energía Atómica aprovecha esta oportunidad para reiterar a los Estados Miembros del OIEA el testimonio de su distinguida consideración.



27 de agosto de 2020

Documentación adjunta (en inglés únicamente):

Reseña informativa

Formulario de participación (Formulario A)

Formulario de presentación de memorias (Formulario B)



Technical Meeting on New Trends and Advances in Microdosimetry and its Applications

Virtual Event

27–30 October 2020

Ref. No.: EVT1904203

Information Sheet

Introduction

Microdosimetry is the subfield of radiation physics that regards the systematic study of the spatial and temporal distribution of the absorbed energy in microscopic structures within the irradiated matter, which are stochastic by nature. Although it originated more than sixty years ago, microdosimetry is still attracting high scientific interest nowadays in radiation medicine, radiation protection, radiation biology and other fields such as space research.

In the field of radiation medicine, microdosimetry is particularly relevant for ion beam therapy, which is one of the most promising techniques to cure a number of tumors minimizing the damage on healthy tissue. In this medical application of ionizing radiation as well as in radiation protection, the conventional measurement of the absorbed dose is not sufficient to explain the biological effects of the radiation in the human body such as the variation of radiobiological effectiveness along the path of a clinical ion beam.

In radiation protection and in a number of modalities in radiation medicine, therefore, weighting factors are applied to the conventional dosimetric quantity absorbed dose in order to account for the biological effectiveness of the particular radiation quality. Examples include proton and ion beams, neutrons as well as kilovolt X-rays as used in brachytherapy. Micro and nanodosimetry (also known as structural microdosimetry, the extension of microdosimetry to smaller dimensions), have been developed to provide radiation quantities that capture the influence of the stochastic nature of radiation interactions and, hence, the properties of different radiation qualities responsible for their different relative biological effectiveness.

Objectives

The aim of the Technical Meeting is to gather up-to-date information and status of the field of microdosimetry, and in particular experimental microdosimetry, in order to enhance and boost the research and applications of microdosimetry in IAEA Member States. The main topics/focus will concern the current state of the art of development of microdosimeters and instrumentation, computational tools, methodology used in microdosimetry, non-clinical use of detectors as well as future perspectives and demands.

The topics to be covered during the meeting:

Introductory concepts

- Radiation quality in Radiation Protection and in Radiation Therapy
- Microdosimetric and nanodosimetric
- approach Instrumentational and computational tools

Developments and instrumentation

Computational tools

Non-clinical use of detectors

Outlook, Perspectives, and Demands

Target Audience

The event is intended for individuals from Member States that are involved in the field of microdosimetry through development, simulation or use.

Working Language(s)

English

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 **11 September 2020**. 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 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 presentations. The abstract should be in A4 page format, should extend to no more than one pages (including figures and tables). It should be sent electronically to Mr Natko Skukan, the Scientific Secretary of the event (see contact details below), not later than **11 September 2020**. Authors will be notified of the acceptance of their proposed presentations by **30 September 2020**.

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 **11 September 2020**.

IAEA Contacts

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

Event Web Page

Please visit the following IAEA web page regularly for new information regarding this event:

www.iaea.org/events/EVT1904203

Participation Form

Technical Meeting on New Trends and Advances in Microdosimetry and its Applications

Virtual Event

27–30 October 2020

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 N.Skukan@iaea.org, O.Belyakov@iaea.org and to the Administrative Secretary R.Attia@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: 11 September 2020

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 <input type="checkbox"/> No <input type="checkbox"/> Would you prefer to present your paper as a poster? Yes <input type="checkbox"/> No <input type="checkbox"/> Title:		

Form for Submission of a Paper

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Deadline for receipt by IAEA through official channels: 11 September 2020

Title of the paper:		
Family name(s) and first name(s) of all author(s) (same as in passport(s):	Scientific establishment(s) in which the work has been carried out	City/Country
1.		
2.		
3.		
Family name(s) and first name(s) of author presenting the paper (same as in passport):	Mr/Ms:	
Mailing address:		
Tel. (Fax):		
Email:		

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Date:

Signature of main author: