



# **International Conference on Advances in Radiation Oncology (ICARO-4)**

**IAEA Headquarters  
Vienna, Austria**

**2–5 June 2025**

**Organized by the  
International Atomic Energy Agency (IAEA)**

## **Announcement and Call for Papers**

### **A. Background**

The International Atomic Energy Agency (IAEA) is organizing the fourth International Conference on Advances in Radiation Oncology (ICARO-4), following the successes of the first, second and third conferences (ICARO-1, ICARO-2, and ICARO-3), which were held in 2009, 2017 and 2021. The advances in radiotherapy in the last years have been striking, although numerous challenges remain, including achieving access to high standard cancer care in many countries. New radiotherapy techniques have been implemented, including stereotactic radiotherapy, intensity modulated radiation therapy, image guided and motion management, magnetic resonance imaging-guided linear accelerator Linacs, three-dimensional conformal brachytherapy, proton and light ion therapy. The increased use of these complex techniques, coupled with the need to treat more patients in less time, will continue to drive a reliance on high-end technologies and impose a financial burden on health care programmes. In addition, the development and implementation of quality assurance programmes for these new techniques pose major challenges in Member States.

The conference will give health care professionals an opportunity to review the current developments in clinical applications in the fields of radiation oncology, radiation biology and medical physics, with a view to addressing the challenges of appropriate cancer management in Member States.

It will also critically examine the pivotal role of emerging radiotherapy techniques in tackling the health challenges common to many Member States.

An appropriate number of accredited continuing medical education (CME) credits will be awarded to participants.

## **B. Purpose and Objectives**

The conference will review important clinical, scientific, professional and educational topics covering different aspects of radiotherapy. It will have the following specific objectives:

- To review the current role and potential of clinical, medical physics, technological and molecular/biological innovations in radiation oncology.
- To explore the applications of improved imaging tools in treatment planning.
- To review the current status of evidence-based recommendations for the treatment of common cancers.
- To review the latest developments in medical dosimetry and dose auditing procedures for new radiotherapy technologies.
- To review the present situation of comprehensive audits in radiotherapy.
- To review resource sparing approaches in clinical radiotherapy practices.
- To exchange information on the latest advances and implementation challenges in the field among leading experts.
- To define future challenges and directions in the clinical use of radiotherapy.

## **C. Themes and Topics**

The purpose of the event is to discuss and define the current role and future potential of technological, medical physics and molecular/biological innovations for routine clinical practice in patient-centred radiation oncology. The conference will serve as a forum for the dissemination and exchange of scientific knowledge and best practices in the implementation of technological advances while prioritizing the needs and preferences of patients with cancer. Academic and practice-based papers that fall within the following topics will be welcomed:

- Technological advances and challenges.
- Roadmap for setting up modern radiation oncology facilities.
- New treatment and imaging techniques and clinical evidence.
- Health economics in radiotherapy.
- Developments in treatment planning.
- Dosimetry.

- Auditing procedures.
- Personalized medicine.
- Advances in the treatment of recurrent patients.
- National cancer control strategies.
- Developments in quality assurance and new approaches to quality management.
- Safety in radiation therapy.
- Intensity modulated radiotherapy, including arc-based approaches.
- Image-guided radiotherapy, including MRI guided.
- Stereotactic radiotherapy.
- Proton and light ion therapy.
- Telemedicine.
- Radiation biology.
- Spatially fractionated radiation therapy.
- FLASH therapy.
- Combined therapies.
- Paediatric radiotherapy.
- Clinical research.
- Applied brachytherapy.
- Education and training of professionals.

## **D. Structure**

1. Opening session
2. Planned plenary sessions.
3. Technical sessions.
4. Innovation and research session: Flash Presentations for the accepted abstracts.
5. Policy and professional sessions: Leadership workshops; Future strategic plans for enhancing the capacity building in low/middle income countries.
6. Implementation of the global radiotherapy services: MD Anderson collaboration, St. Jude's, WHO, Anchor centres.
7. Clinical technology: Workshops/ Discussions.
8. Database management: workshop: SUNRISE.
9. Audit & Q/A.
10. Standing stations: Virtual Reality, New e-learning platforms ROVER.
11. Parallel sessions or with different tracks.
12. Planned side events and the closing session.: WIN IAEA, Gender Equity, Successive stories of first wave of Rays of Hope, radiation therapists, Medical physics events, artificial intelligence, and e-learning.

## E. Expected Outcomes

The conference will provide clinicians, scientists, and professionals with an international forum at which they can review the latest developments in all aspects of radiotherapy, with a view to addressing the health challenges common to many IAEA Member States.

## F. Target Audience

This conference will offer the opportunity to review the latest technological, clinical, and biological developments of radiotherapy. The main target audience comprises:

- Radiation oncologists.
- Radiation biologists.
- Medical physicists.
- Radiation therapists.

The Conference would also be of interest to scientists, researchers and bio-medical engineers working in the field of radiotherapy.

## G. Call for Papers

Contributions on the topics listed in Section C are welcome as oral or poster presentations. All submissions, apart from invited papers, must present original work, which has not been published elsewhere.

### G.1. Submission of Abstracts

Abstracts (approximately 150 to 200 words on one A4 page, may contain any charts, graphs, figures and references) should give enough information on the content of the proposed paper to enable the Programme Committee to evaluate it. Anyone wishing to present at the conference must submit an abstract in electronic format using the conference's file submission system ([IAEA-INDICO](#)), which is accessible from the conference web page (see Section Q). The abstract can be submitted through this system until **30 September 2024**. Specifications for the layout will be available on IAEA-INDICO. The system for electronic submission of abstracts, IAEA-INDICO, is the sole mechanism for submission of contributed abstracts. Authors are encouraged to submit abstracts as early as possible. The IAEA will not accept submissions via email.

In addition, authors must register online using the InTouch+ platform (see Section H). The online registration together with the auto-generated Participation Form (Form A) and Form for Submission of a Paper (Form B) must reach the IAEA no later than **30 September 2024**.

**IMPORTANT:** The Programme Committee will consider uploaded abstracts only if these two forms have been received by the IAEA through the established official channels (see Section H).

## G.2. Acceptance of Abstracts

The Secretariat reserves the right to exclude abstracts that do not comply with its technical or scientific quality standards and that do not apply to one of the topics listed in Section C.

Authors will be informed by **1 December 2024** as to whether their submission has been accepted, either orally or as a poster, for presentation at the conference. Accepted abstracts will also be reproduced in an unedited electronic compilation of abstracts which will be made available to all registered participants of the conference.

## G.3 Proceedings

Following the conference, the IAEA will publish a summary report. The proceedings will be made available to read online.

# H. Participation and Registration

All persons wishing to participate in the event must be designated by an IAEA Member State or should be a member of an organization that has been invited to attend.

### Registration through the InTouch+ platform:

1. Access the InTouch+ platform (<https://intouchplus.iaea.org>):

- Persons with an existing NUCLEUS account can [sign in here](#) with their username and password;
- Persons without an existing NUCLEUS account can [register here](#).

2. Once signed in, prospective participants can use the InTouch+ platform to:

- Complete or update their personal details under ‘Basic Profile’ (if no financial support is requested) or under ‘Complete Profile’ (if financial support is requested) and upload the relevant supporting documents;
- Search for the relevant event (**EVT2306596**) under the ‘My Eligible Events’ tab;
- Select the Member State or invited organization they want to represent from the drop-down menu entitled ‘Designating authority’ (if an invited organization is not listed, please contact [Conference.Contact-Point@iaea.org](mailto:Conference.Contact-Point@iaea.org));
- If applicable, indicate whether a paper is being submitted and complete the relevant information;
- If applicable, indicate whether financial support is requested and complete the relevant information (this is not applicable to participants from invited organizations);
- Based on the data input, the InTouch+ platform will automatically generate Participation Form (Form A), Form for Submission of a Paper (Form B) and/or Grant Application Form (Form C);
- Submit their application.

Once submitted through the InTouch+ platform, the application together with the auto-generated form(s) will be transmitted automatically to the required authority for approval. If approved, the application together with the form(s) will automatically be sent to the IAEA through the online platform.

**NOTE:** Should prospective participants wish to submit a paper or request financial support, the application needs to be submitted by the specified deadlines (see section O).

For additional information on how to apply for an event, please refer to the [InTouch+ Help](#) page. Any other issues or queries related to InTouch+ can be sent to [InTouchPlus.Contact-Point@iaea.org](mailto:InTouchPlus.Contact-Point@iaea.org).

If it is not possible to submit the application through the InTouch+ platform, prospective participants are requested to contact the IAEA's Conference Services Section via email: [Conference.Contact-Point@iaea.org](mailto:Conference.Contact-Point@iaea.org).

Participants are hereby informed that the personal data they submit will be processed in line with the [Agency's Personal Data and Privacy Policy](#) and is collected solely for the purpose(s) of reviewing and assessing the application and to complete logistical arrangements where required. Further information can be found in the [Data Processing Notice](#) concerning IAEA InTouch+ platform.

## I. Expenditures and Grants

No registration fee is charged to participants.

The IAEA is generally not in a position to bear the travel and other costs of participants in the conference. The IAEA has, however, limited funds at its disposal to help cover the cost of attendance of certain participants. Upon specific request, such assistance may be offered to normally one participant per country, provided that, in the IAEA's view, the participant will make an important contribution to the conference.

If participants wish to apply for a grant, they should submit applications to the IAEA using the InTouch+ platform through their competent national authority (see Section H). Participants should ensure that applications for grants are:

1. Submitted by **30 September 2024**.
2. Accompanied by Grant Application Form (Form C); and
3. Accompanied by Participation Form (Form A).

Applications that do not comply with the above conditions cannot be considered.

Approved grants will be issued in the form of a lump sum payment that usually covers **only part of the cost of attendance**.

## J. Distribution of Documents

A preliminary and final programme will be made available on the conference web page (see Section Q) prior to the start of the conference. The electronic compilation of abstracts will be accessible free of charge to participants registered for the conference.

## K. Exhibitions

A limited amount of space will be available for commercial vendors' displays/exhibits during the conference. Interested parties should contact the Scientific Secretariat by email [icaro@iaea.org](mailto:icaro@iaea.org) by **30 November 2024**.

## L. Working Language

The working language of the conference will be English. All communications must be sent to the IAEA in English.

## M. Venue and Accommodation

The conference will be held at the Vienna International Centre (VIC), where the IAEA's Headquarters are located. Participants are advised to arrive at Checkpoint 1/Gate 1 of the VIC one hour before the start of the event on the first day in order to allow for timely registration. Participants will need to present an official photo identification document in order to be admitted to the VIC premises.

Participants must make their own travel and accommodation arrangements. Hotels offering a reduced rate for participants are listed on <https://www.iaea.org/events>. Please note that the IAEA is not in a position to assist participants with hotel bookings, nor can the IAEA assume responsibility for paying fees for cancellations, re-bookings and no-shows.

## N. Visas

Participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria as early as three months but not later than four weeks before they travel to Austria. Since Austria is a Schengen State, persons requiring a visa will have to apply for a Schengen visa. In States where Austria has no diplomatic mission, visas can be obtained from the consular authority of a Schengen Partner State representing Austria in the country in question.

For more information, please see the Austria Visa Information document available on <https://www.iaea.org/events>.

## O. Key Deadlines and Dates

Submission of abstracts through IAEA-INDICO	<b>30 September 2024</b>
Submission of Form B (together with Form A) through the InTouch+ platform	<b>30 September 2024</b>
Submission of Form C (together with Form A) through the InTouch+ platform	<b>30 September 2024</b>
Notification of acceptance of abstracts for oral or poster presentation	<b>1 December 2024</b>
Submission of Form A only (no paper submission, no grant request) through the InTouch+ platform	<b>26 May 2025</b>

## **P. Conference Secretariat**

### **General Postal Address and Contact Details of the IAEA:**

International Atomic Energy Agency  
Vienna International Centre  
PO Box 100  
1400 VIENNA  
AUSTRIA  
Tel.: +43 1 2600  
Fax: +43 1 2600 2007  
Email: [Official.Mail@iaea.org](mailto:Official.Mail@iaea.org)

### **Scientific Secretaries of the Conference:**

#### **Ms Soha Salem**

Division of Human Health Department of Nuclear Sciences and Applications  
Applied Radiation Biology and Radiotherapy Section  
Tel.: +43 1 2600 22648  
Fax: +43 1 26007  
Email: [icaro@iaea.org](mailto:icaro@iaea.org)

#### **Mr Godfrey Azangwe**

Division of Human Health Department of Nuclear Sciences and Applications  
Dosimetry and Medical Radiation Physics Section  
Tel.: +43 1 2600 28384  
Fax: +43 1 26007  
Email: [icaro@iaea.org](mailto:icaro@iaea.org)

### **Administration and Organization:**

#### **Ms Nancy Herter**

Conference Services Section  
Division of Conference and Document Services  
Department of Management  
IAEA-CN-331; EVT2306596  
Tel.: +43 1 2600 21315  
Email: [Conference.Contact-Point@iaea.org](mailto:Conference.Contact-Point@iaea.org)

Subsequent correspondence on scientific matters should be sent to the Scientific Secretaries and correspondence on administrative matters to the IAEA's Conference Services Section.

## **Q. Conference Web Page**

Please visit the IAEA conference [www.iaea.org/events/icaro-4](http://www.iaea.org/events/icaro-4) regularly for new information regarding this conference.