



**IAEA**

**International Atomic Energy Agency**

*Atoms for Peace and Development*

**International Symposium on Isotope Hydrology:  
Sustainable Water Resources in a Changing  
World**

**IAEA Headquarters**

**Vienna, Austria**

**3–7 July 2023**

**Organized by the**

**International Atomic Energy Agency (IAEA)**

**In cooperation with the**

**UNESCO Intergovernmental Hydrological Programme**

**World Meteorological Organization**

**International Association of Hydrogeologists**

**Announcement and Call for Papers**

## **A. Background**

The International Atomic Energy Agency (IAEA) has convened quadrennial symposia on isotope hydrology since 1963. In 2023 this symposium will celebrate 60 years of providing a unique opportunity to review the state-of-the-science, practical applications, and research trends and needs in isotope hydrology. Isotope hydrology contributes to a better understanding of the water cycle and has applications in water resources assessment and management, the study of past and future changes in the Earth's climate as well as of climate impacts on the water cycle, and in forensic areas such as ecological, wildlife and food source traceability. This edition is the 16th symposium in the series and will be held at the IAEA's Headquarters in Vienna, Austria. The symposium is aimed at facilitating the exchange of information and knowledge among water and environment professionals from developed and developing countries.

## **B. Purpose and Objectives**

The objectives of the symposium are to:

- review the basic principles of isotope hydrology in the light of the current state of knowledge;
- review recent developments in analytical instrumentation and applications of isotopes in water and climate studies;
- identify research, analytical and training requirements for a wider use of isotope hydrology; and
- identify particular focus areas where isotope hydrology can assist with acceleration of SDG6.

## **C. Themes and Topics**

The symposium will cover the following topics related to the application of isotope hydrology for water resource management:

1. Revisiting the role of tritium as a tracer in post-bomb hydrological cycle processes and groundwater systems
2. Hydrosphere–atmosphere interactions including isotopic insights on meteorological extremes, convective rains and catchment runoff
4. Assessing changes in the cryosphere and their impact on water sustainability and security
5. Evaluating water quality, tracking contaminant sources and reaction pathways in different environmental systems including areas affected by mining and agricultural activities.
6. Application of isotope age tracers to evaluate sub-annual to 1 Ma water residence time

7. New analytical developments, approaches, and tools in isotopologue ratio measurement and data quality
8. Integrating isotope techniques with other advanced techniques such as big data from remote sensing or high-frequency sensors, advanced data analysis using geographic information systems, machine learning and/or modelling applications
9. Isotopic reflections on water resources due to climate change including adaptation and mitigation approaches
10. Enabling and strengthening science-based policies for water resource management
11. Actions and activities that support capacity building and mainstreaming of gender equality in isotope hydrology projects

## **D. Structure**

1. An opening session consisting of welcoming addresses by representatives of the IAEA and cooperating organizations
2. Plenary sessions including keynote speakers
3. Scientific sessions consisting of oral presentations from the different themes/topics under Section C
4. Discussion sessions at the end of each major theme or topic
5. Poster sessions consisting of poster presentations including ample time for discussion and interaction with colleagues
6. A final roundtable session including presentations addressing the main conclusions drawn from the scientific sessions and will discuss recommendations for the future development of international cooperation, including IAEA activities in isotope hydrology
7. Rapporteur summaries for all major sessions/themes
8. Side events including workshops and training sessions relevant to isotope hydrology.

## **E. Expected Outcomes**

The main technical conclusions and findings will help in identifying high priority areas of work and will be taken into consideration at the time of preparing the activities to be carried out by the IAEA's Water Resources Programme. These activities will feed into the 2018–2028 UN Water Action Decade and make tangible advances towards achieving SDG6.

## **F. Target Audience**

The symposium is aimed at professionals involved in a broad spectrum of disciplines, including water resource management, processes in the hydrosphere and atmosphere, climate change and its impact on

the water cycle, environmental modelling, protection of the environment, geographical information systems, emergency response, and the development of isotopic techniques and tools. Government officials, including policy makers and individuals responsible for the assessment of environmental programmes, would also benefit from attending the symposium.

## **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 Synopses**

Synopses (approximately 500 to 600 words on one or a maximum of two printed A4 pages, 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 a synopsis in electronic format using the symposium's file submission system ([IAEA-INDICO](#)), which is accessible from the symposium web page (see Section Q). The synopsis can be submitted through this system from **17 October 2022** until **30 January 2023**. Specifications for the layout will be available on IAEA-INDICO. The system for electronic submission of synopsis, IAEA-INDICO, is the sole mechanism for submission of contributed synopsis. Authors are encouraged to submit synopsis 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 January 2023**.

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

### **G.2. Acceptance of Synopses**

The Secretariat reserves the right to exclude synopses 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 **15 March 2023** as to whether their submission has been accepted, either orally or as a poster, for presentation at the symposium. Accepted synopses will also be reproduced in an unedited electronic compilation of Synopses which will be made available to all registered participants of the symposium.

### G.3 Proceedings

Following the symposium, 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 (**EVT2202898**) 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 symposium. 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 symposium.

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 January 2023**;
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 symposium web page (see Section Q) prior to the start of the conference. The electronic compilation of synopses will be accessible free of charge to participants registered for the symposium.

## K. Exhibitions

A limited amount of space will be available for commercial vendors' displays/exhibits during the symposium. Interested parties should contact the Scientific Secretariat by email [isih2023@iaea.org](mailto:isih2023@iaea.org) by **30 January 2023**.

## L. Working Language

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

## M. Venue and Accommodation

The symposium 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 synopses through IAEA-INDICO	<b>30 January 2023</b>
Submission of Form B (together with Form A) through the InTouch+ platform	<b>30 January 2023</b>
Submission of Form C (together with Form A) through the InTouch+ platform	<b>30 January 2023</b>
Notification of acceptance of synopses for oral or poster presentation	<b>15 March 2023</b>
Submission of Form A only (no paper submission, no grant request) through the InTouch+ platform	<b>No deadline</b>

## **P. Symposium 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 Secretary of the Symposium:**

#### **Ms Jodie Miller**

Division of Physical and Chemical Sciences  
Department of Nuclear Sciences and Applications  
Tel.: +43 1 2600 21735  
Fax: +43 1 26007  
Email: [isih2023@iaea.org](mailto:isih2023@iaea.org)

### **Administration and Organization:**

#### **Ms Nancy Herter**

Conference Services Section  
Division of Conference and Document Services  
Department of Management  
IAEA-CN-320; EVT2202898  
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 Secretary and correspondence on administrative matters to the IAEA's Conference Services Section.

## **Q. Symposium Web Page**

Please visit the IAEA symposium web page [www.iaea.org/events/isih2023](http://www.iaea.org/events/isih2023) regularly for new information regarding this symposium.