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
3. Assessing changes in the cryosphere and their impact on water sustainability and security
4. Evaluating water quality, tracking contaminant sources and reaction pathways in different environmental systems including areas affected by mining and agricultural activities.
5. 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);
   - 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.

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.

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 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

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<tr>
<th>Activity</th>
<th>Deadline</th>
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<tr>
<td>Submission of synopses through IAEA-INDICO</td>
<td>30 January 2023</td>
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<tr>
<td>Submission of Form B (together with Form A) through the InTouch+ platform</td>
<td>30 January 2023</td>
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<tr>
<td>Submission of Form C (together with Form A) through the InTouch+ platform</td>
<td>30 January 2023</td>
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<tr>
<td>Notification of acceptance of synopses for oral or poster presentation</td>
<td>15 March 2023</td>
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<td>Submission of Form A only (no paper submission, no grant request)</td>
<td>No deadline</td>
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<td>through the InTouch+ platform</td>
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P. Symposium Secretariat

General Postal Address and Contact Details of the IAEA:

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Administration and Organization:

Ms Nancy Herter
Conference Services Section
Division of Conference and Document Services
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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 regularly for new information regarding this symposium.