



# **International Symposium on Isotope Hydrology: Advancing the Understanding of Water Cycle Processes**

**IAEA Headquarters  
Vienna, Austria**

**20–24 May 2019**

## **Announcement and Call for Papers**

### **A. Introduction**

The International Atomic Energy Agency (IAEA) has convened quadrennial symposia on isotope hydrology since 1963. Over the decades these IAEA symposia have provided opportunities to present and review methodological and analytical developments as well as practical applications and research trends in isotope hydrology. Nowadays, isotope hydrology constitutes a consolidated discipline within the field of Earth Sciences and makes important contributions to the better understanding of hydrological processes, particularly in water resources assessment and management in the context of Sustainable Development Goal 6 on Water and Sanitation for All. In addition, environmental isotopes remain a key management tool, e.g. stable isotopes of the water molecule remain the key indicators of past changes in the Earth's climate and tools to validate climate models. More recently, scientists have used environmental isotopes in areas such as forensic sciences and ecology, and in food source traceability and the prediction of climate impacts on the water cycle.

This edition of the symposium will be the 15th in the series and will be held at the IAEA's Headquarters in Vienna, Austria, from 20 to 24 May 2019. The symposium will aim to facilitate the exchange of information and knowledge among water and environment professionals from developed and developing countries in order to advance the understanding, collaboration and capabilities to respond to the rapidly changing global environment.

## B. Objectives

The objectives of the symposium are to review recent contributions of isotope tracers and other geochemical tools in advancing the understanding of hydrological processes in a changing environment; to review recent developments in the approaches and methods based on isotopes in climate studies and related fields; and to assess research, analytical and training requirements to meet the challenges of understanding the consequences and impact of climate change.

## C. List of Topics

- Spatial isotope patterns to understand hydrological processes
- Water balance modelling and hydrological processes
- Synthesis of isotope data to identify emerging water quality/quantity issues
- Isotopes in precipitation modelling and palaeoclimate reconstruction
- Groundwater dating and palaeohydrology
- Environmental/climate change and impact on water resources
- Advances in isotope analytical methods and data quality assurance
- Enabling and strengthening science-based policies for water resources management

## D. Target Audience

The symposium is aimed at professionals involved in a broad spectrum of disciplines, including: water resources assessment and management; processes in the hydrosphere and atmosphere; climate change and its impact on the water cycle; meteorology and environmental modelling; protection of the environment; geographic information systems; 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.

## E. Working Language

The working language of the symposium will be English.

## F. Structure

The **opening session** will include welcoming addresses by representatives of the IAEA and cooperating organizations as well as the first keynote presentation.

A series of **plenary sessions** will address the topics mentioned in Section C. Each session will consist of:

- Invited keynote paper(s);
- Oral presentations; and
- Panel discussion.

**Poster sessions** will be organized for all accepted papers and will include ample time for discussion and interaction with colleagues.

A **final roundtable session** will include presentations addressing the main conclusions drawn in the previous technical sessions and will discuss recommendations for the future development of international cooperation, including IAEA activities.

A **field trip** highlighting the geology and hydrogeology of the Vienna Basin is tentatively planned subject to the availability of resources and time.

## G. Papers and Posters

All participants who wish to give presentations (orally or in the form of posters) at the symposium must submit a synopsis on one of the topics listed under Section C covering isotope applications relevant to water resources management and climate studies. All submissions — other than invited keynote papers — must present original work and should not have been published elsewhere. Poster sessions will be used to promote greater interactions among symposium participants.

### G.1. Submission of Synopses

Synopses (one or a maximum of two printed A4 pages, including figures and references) must be uploaded to the symposium's file submission system (IAEA-INDICO), which will be available on the symposium web page (see Section O) from **23 August 2018 to 30 November 2018 13 January 2019**. No other submission route will be accepted. Specifications for the layout will be available on INDICO.

In addition, all participants must submit the Participation Form (Form A) and the Form for Submission of a Paper (Form B) to their appropriate governmental authority (see Section H) for transmission to the IAEA. These forms must be received by the IAEA no later than **30 November 2018 13 January 2019**.

**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/or that do not apply to one of the topics in Section C above.

Authors will be informed by **18 February 2019** as to whether their synopses have been accepted for oral or poster presentation. The electronic compilation of accepted synopses will be available free of charge to all participants upon registration at the symposium.

### G.3 Proceedings

A limited number of the papers presented at the symposium will be selected for publication in a scientific journal.

## H. Participation and Registration

All persons wishing to participate in the symposium must be designated by an IAEA Member State or be members of organizations that have been invited to attend. The list of invited organizations can be requested from the Symposium Secretariat (see Section N).

In order to be designated by an IAEA Member State, participants are requested to send the following forms (as applicable) to their competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority):

- Participation Form (Form A): participation only; no deadline if only Form A is submitted;
- Form for Submission of a Paper (Form B): participants submitting a paper contribution through INDICO must send the completed and signed Form B together with Form A to their competent national authority for transmission to the IAEA ([Official.Mail@iaea.org](mailto:Official.Mail@iaea.org)) by the given deadline; and
- Grant Application Form (Form C): participants requesting financial support from the IAEA, must complete Form C and send it together with Form A (and Form B, if applicable) to the competent national authority for transmission to the IAEA ([Official.Mail@iaea.org](mailto:Official.Mail@iaea.org)) by the given deadline. Form C must be stamped and signed by the competent national authority.

Participants who are members of an organization invited to attend are requested to send the above form(s) through their organization to the IAEA ([Official.Mail@iaea.org](mailto:Official.Mail@iaea.org)).

In addition, participants are requested to pre-register online through the symposium website <https://www.iaea.org/events/international-symposium-on-isotope-hydrology-2019>.

Participants who register in accordance with the above procedure will receive from the IAEA further information approximately three months before the opening of the symposium.

## I. Expenditures and Grants

No registration fee will be 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 meet the cost of attendance of certain participants. Such assistance may be offered upon specific request to normally one participant per country provided that, in the IAEA's view, the participant on whose behalf assistance is requested will make an important contribution to the symposium.

If Governments wish to apply for a grant on behalf of one of their specialists, the Participation Form (Form A) and the Grant Application Form (Form C), stamped and signed by the Government, must reach the IAEA ([Official.Mail@iaea.org](mailto:Official.Mail@iaea.org)) by ~~30 November 2018~~ **13 January 2019**.

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. Venue and Accommodation

The symposium will be held at the IAEA's Headquarters in Vienna, Austria. Participants must make their own travel and accommodation arrangements. Hotels offering a reduced rate for symposium participants will be listed on the symposium web page (see Section O). 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.

## K. Visas

Designated participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria at least 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.

## L. Key Deadlines and Dates

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| Submission of synopses through INDICO (including submission of Forms A and B through a competent national authority) | <del>30 November 2018</del> <b>13 January 2019</b> |
| Submission of grant application (Forms A and C through a competent national authority)                               | <del>30 November 2018</del> <b>13 January 2019</b> |
| Notification of acceptance of synopses   | <b>18 February 2019</b>                            |
| Registration only (no paper submission, no grant request)  | <b>No deadline</b>                                 |

## M. Exhibits

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:

[Isotope-Hydrology-Symposium-2019@iaea.org](mailto:Isotope-Hydrology-Symposium-2019@iaea.org) before **30 November 2018**.

## **N. Symposium Secretariat**

### **General contact details**

International Atomic Energy Agency  
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### **Scientific Secretary**

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### **Administration and organization**

**Ms Martina Khaelss**  
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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.

## **O. Symposium Web Page**

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

<https://www.iaea.org/events/international-symposium-on-isotope-hydrology-2019>.