



Training Course on Isotope-enabled Water Balance Modelling Using the JAMS/J2000 Modelling System: Part 1

**IAEA Headquarters
Vienna, Austria**

22 - 26 June 2026

Ref. No.: EVT2503842

Information Sheet

Introduction

This training course introduces participants to isotope-enabled water balance modelling using the JAMS/J2000iso system. By combining hydrological modelling with stable isotope data, this approach offers water managers and scientists deeper insights into recharge processes, flow pathways and source contributions that conventional methods cannot easily resolve. Through hands-on exercises and application to their own catchments, participants will build the skills needed to develop, calibrate and evaluate models, preparing them for the more advanced second part of the course.

Objectives

To provide participants with the basics in water balance modelling with isotopes through applying J2000-iso to a study catchment that each participant identifies. To guide users through the hydrological response unit (HRU) delineation, parameterization of spatial variables, running the model and navigating the JAMS graphical user interface, model calibration and validation including model calibration using water isotopes, uncertainty analysis of parameters. To provide participants with support to develop their own models.

Target Audience

Selection priority is given to technical staff linked to counterparts of IAEA Technical Cooperation projects currently involved in field data collection and Isotope Hydrology interpretation. Other participants are accepted based on space availability.

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 or invited organization, participants are requested to submit their application via the InTouch+ platform (<https://intouchplus.iaea.org>) to the competent national authority (Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) or organization for onward transmission to the IAEA by **4 May 2026**, following the registration procedure in InTouch+:

1. Access the InTouch+ platform (<https://intouchplus.iaea.org>):
 - Persons with an existing NUCLEUS account can sign in to the platform 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 ‘Complete Profile’ and upload the relevant supporting documents;
 - Search for the relevant event 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 InTouchPlus.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 the Participation Form (Form A) and/or the 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 applicable form(s), will automatically be sent to the IAEA through the online platform.

NOTE: The application for financial support should be made, together with the submission of the application, by **04 May 2026**.

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.

Selected participants will be informed in due course on the procedures to be followed with regard to administrative and financial matters.

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. The IAEA may also use the contact details of Applicants to inform them of the IAEA's scientific and technical publications, or the latest employment opportunities and current open vacancies at the IAEA. These secondary purposes are consistent with the IAEA's mandate. Further information can be found in the [Data Processing Notice](#) concerning the IAEA InTouch+ platform.

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 event. The IAEA has, however, limited funds at its disposal to help meet 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 event.

The application for financial support should be made, together with the submission of the application, by **04 May 2026**.

Venue

The event will be held at the Vienna International Centre (VIC) where the IAEA's Headquarters are located. Participants must make their own travel and accommodation arrangements.

General information on the VIC and other practical details, such as a list of hotels offering a reduced rate for IAEA participants, are listed on the following IAEA web page:

<https://www.iaea.org/events>.

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.

Visas

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.

Additional Information

Participants should have a technical/scientific profile showing proven previous experience in the interpretation of stable isotopes for hydrogeological, hydrological or climatological applications. A background in isotope hydrology and hydrological modelling, proficiency with computers and software, GIS, Google Earth Engine, R coding are required. Participants need to bring their own laptop, equipped with standard Microsoft Windows and a minimum configuration is required with certain apps (Excel, Word, txt file editor, QGIS, and R-studio etc.) already installed. It is recommended that the participants

have knowledge of basic modelling principles as this will not be covered. The course requires participants to install software. Any participant with a laptop that has access restrictions will need to ensure that the required software is installed prior to arrival at the IAEA. All participants need to have a working google account (gmail).As the training course is conducted in English, participants should have sufficient proficiency to follow lectures and express themselves in the English language without difficulty. Applicants should come with an ideal test study catchment (size 2 000-20 000km²) of their own. Applicants should come prepared with digital maps of geology and land use, a digital elevation model, soil and gauging station locations. Additionally, it is advantageous to have catchment data on climate (Tmean, Tmin, Tmax, relative humidity, solar radiation, windspeed and precipitation) available for the training course begins. Time will also be allocated to help participants extract data for their catchment using Google Earth Engine.

Organization

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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.