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

Monday, 3 July 2023 - Friday, 7 July 2023

Vienna International Centre

Scientific Programme

The objectives of the symposium are to:

(a) demonstrate contributions of isotope tracers and other geochemical tools in advancing the understanding of hydrological processes.

(b) demonstrate recent developments in the approaches and analytical methods.

Revisiting the role of tritium as a tracer in post-bomb hydrological cycle processes and groundwater systems

Hydrosphere–atmosphere interactions including isotopic insights on meteorological extremes, convective rains and catchment runoff

Assessing changes in the cryosphere and their impact on water sustainability and security

Evaluating water quality, tracking contaminant sources and reaction pathways in different environmental systems including areas affected by mining and agricultural activities.

Application of isotope age tracers to evaluate sub-annual to 1 Ma water residence time

New analytical developments, approaches, and tools in isotopologue ratio measurement and data quality

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

Isotopic reflections on water resources due to climate change including adaptation and mitigation approaches

Enabling and strengthening science-based policies for water resource management

Actions and activities that support capacity building and mainstreaming of gender equality in isotope hydrology projects