Vienna Doctoral Programme on
Water Resource Systems
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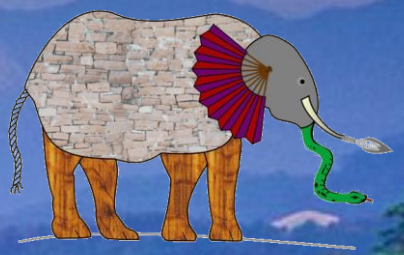

Summer School - Runoff Predictions in Ungauged Basins (PUB)

Purpose: To learn methods of estimating runoff characteristics in the absence of local runoff observations

Vienna,
30th June - 4th July, 2025

Centre for Water Resource Systems
Vienna University of Technology, 1040 Wien,
Karlsplatz 13/222
www.waterresources.at

Vienna Doctoral Programme on Water Resource Systems

Course lecturers

Prof. Günter Blöschl
TU Vienna

Prof. Juraj Parajka
TU Vienna

Dr. José Luis Salinas
Moody's RMS,
London, UK

Prof. Gregor Laaha
BOKU Vienna

Prof. Attilio Castellarin
University of Bologna

Prof. Alberto Viglione
Polytechnic University of Turin

Dr. Peter Valent
TU Vienna

Overview

This Summer School is devoted to runoff prediction in ungauged basins (PUB), i.e., predicting water runoff at locations where no runoff data are available. This lack of data presents considerable challenges to catchment managers who require information on water flows for decision making. This course, based on the book, "Runoff Prediction in Ungauged Basins: Synthesis across Processes, Places and Scales", will provide hydrologists with the theory and methods to address this critical challenge. The collection of speakers will bring together results from individual location-based studies and show how a comparative approach can be applied to learn from the differences and similarities between catchments around the world along gradients of climate and landscape features.

Who should attend

Masters and PhD students researching catchment hydrology and practising hydrologists who are challenged by making predictions in the absence of runoff data.

What to bring

The course includes a substantial hands on component. Participants can bring their own runoff data (from around 10 catchments, over 10 years) or alternatively, runoff data will be provided.

Venue

The course will be held at the Vienna University of Technology, Karlsplatz 13, in the heart of the Austrian capital.

Registration

The course fee is Euro 600-.
Included are all course material and lunch.
Participants are responsible for their own transport, accommodation, health insurance, all other meals and personal expenses.

A small number of competitively selected, fee waiver places are available. To apply, send a CV and motivation letter to Dr. Borbála Széles (details below) by 1st May, 2025.

To register and for any enquiries contact:
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Programme

	Monday	Tuesday	Wednesday	Thursday	Friday
9:00-10:30	**Introduction** *Blöschl*	**Seasonal runoff** *Viglione*	**Low flows** *Laaha*	**Floods** *Salinas*	**Hands-on (Comparative analysis)**
11:00-13:00	**Remote sensing** *Parajka*	**Hands-on (Budyko and Parde)**	**Hands-on (Regression)**	**Hands-on (Index-flood)**	**Hands-on (Group work)**
14:00-15:30	**R for PUB** *Viglione*	**Flow duration curves (FDCs)** *Castellarin*	**Hands-on (Group work)**	**Runoff hydrographs** *Valent*	**Hands-on (Group presentations)**
16:00-18:00	**Annual runoff** *Viglione*	**Hands-on (Construction and prediction of FDCs)**	**Hands-on (Group work)**	**Hands-on (HBV, signatures)**	**Synthesis and feedback** *Blöschl*