



# Summer School - Runoff Predictions in Ungauged Basins (PUB)

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

Vienna,  
1<sup>st</sup>-5<sup>th</sup> July, 2024



## Course lecturers



**Prof. Günter Blöschl**  
TU Vienna



**Prof. Murugesu Sivapalan**  
University of Illinois at Urbana Ch.



**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

## 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 1<sup>st</sup> May, 2024.

To register and for any enquiries contact:  
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## Programme

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