





## Vienna Catchment Science Symposium, Saturday 20th April, 2024

## On the Theme of: Outrageous hypotheses in hydrology

11th Symposium

One of the findings of the Unsolved Problems in Hydrology (UPH) initiative of IAHS, EGU-HS, AGU-HS and the IAH was the need for more discovery science and outrageous hypotheses in hydrology. In 1926, geologist William Davis exhorted his fellow scientists thus: 'Our younger members may perhaps experience a feeling of disappointment, or even of discouragement at the unanimity with which the conclusions of an elder are received by a geological audience. But to make progress, violence must be done to many of our accepted principles'. In this spirit, the aim of this symposium is to discuss new, controversial ideas about how the water cycle works to stimulate more high-risk/high-gain initiatives in hydrology.

8:30 Tea, coffee, pastries and greetings 3 <sup>rd</sup> Floor Foyer  8:45 Welcome and Introduction Kuppelsaal Günter Blöschl, Vienna University of Technology, Austria  9:00 Outrageous hypothesis: Subsurface nitrogen legacies are real and delay water quality improvement Nandita Basu, University of Waterloo, Canada  Kuppelsaal
Günter Blöschl, Vienna University of Technology, Austria  9:00 Outrageous hypothesis: Subsurface nitrogen legacies are real and delay water quality improvement  Kuppelsaal
9:00 Outrageous hypothesis: Subsurface nitrogen legacies are real and delay water quality improvement Kuppelsaal
water quality improvement
Nandita Basu, University of Waterloo, Canada
10:20 Tea and coffee 3 <sup>rd</sup> Floor Foyer
11:10 Outrageous hypothesis: More runoff with less rain Kuppelsaal
Gil Mahé, IRD, HydroSciences Montpellier, France
12:30 Lunch 3 <sup>rd</sup> Floor Foyer
14:00 Small group discussion sessions
Group 1: A compilation of outrageous hypotheses in hydrology Kuppelsaal
Aim: to brainstorm what processes and phenomena would lend themselves
to novel hypotheses and what hypotheses should be addressed  Moderator: Nandita Basu
Group 2: <i>Methods for testing outrageous hypotheses in hydrology</i> Aim: to brainstorm the methods (data, models, frameworks) required to  Kuppel (4th floor
explore outrageous hypotheses at all scales, including regional scales
Moderator: Ross Woods
<b>16:00</b> Tea and coffee 3 <sup>rd</sup> Floor Foyer
16:30 Plenary: Exchange of group findings Kuppelsaal
17:30 Evening drinks reception followed by dinner 3 <sup>rd</sup> Floor Foyer

Location: Kuppelsaal, TU Wien. Karlsplatz 13, 4th floor, 1040 Vienna

