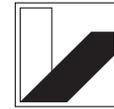


# BayCEER Kolloquium

Lectures in Ecology and  
Environmental Research

Summer 2022



UNIVERSITÄT  
BAYREUTH

Donnerstag/Thursday

**23.06.2022**

**12:15 in H8, GEO**



## Prof. Dr. Christine Stumpp

Institute for Soil Physics and Rural Water Management,  
University of Natural Resources and Life Sciences,  
Vienna, Austria

## Quantification of Soil Water Fluxes - Challenges and Opportunities

Global change has put pressure on many water resources worldwide. For sustainably managing water resources, the knowledge of water fluxes is crucial. However, it is particularly challenging to quantify water fluxes in the unsaturated zone, such as groundwater recharge or evapotranspiration, and how pollutants, such as pesticides and microplastic, are transported through the unsaturated zone. I will present several examples from our research using oxygen and hydrogen isotopes of water for quantifying water fluxes and transport in the unsaturated zone in different climatic regions.

I will also focus on the estimation of soil hydraulic properties using inverse mathematical modelling approaches and how model uncertainties affect the simulation and prediction of soil water fluxes now and in future.

