Subsurface preferential transport processes in agricultural hillslope soils - SUPREHILL

About the project

The main objective of SUPREHILL project is to form a new research group and to establish agricultural hillslope critical zone observatory (CZO), in order to quantify soil water subsurface preferential flow and non-linear agrochemical transport processes, as a fundamental starting point for a variety of future agricultural and environmental research in the region. Research will be focused on a local scale processes, which will be investigated using extensive sensor-based equipment at the experimental site, supported by novel laboratory and numerical quantification methods for determination of water flow and solute transport. This combined approach will allow the research team to accurately estimate nonlinear processes in agricultural hillslopes regarding water flow and agrochemicals dynamics, with a purpose of reducing negative agricultural impact on the environment (especially on soil and water resources). Additionally, results will be available for stakeholders to use for the adjustment of management practices at similar (sloped) agricultural sites, leading to more efficient use of water, nutrients and pesticides.