

Ecohydraulic modelling: challenges and opportunities for river restoration and adaptation

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Abstract

River channelization, hydropower production and the impacts of global warming are some of the significant challenges for restoring river ecosystems. Numerical modelling of hydro-morphology and habitat dynamics serves as a crucial tool for river scientists and managers. However, ecohydraulic river modelling at the reach scale demands appropriate methodologies and adequate spatio-temporal resolutions. In this seminar, Davide Vanzo will share his experience on the development and application of ecohydraulic models, discussing some challenges and highlighting opportunities for advancing river restoration and adaptation efforts.

Short Bio

Davide Vanzo is a senior scientist at the Karlsruhe Institute of Technology (Germany). His research focuses on river hydro-morphodynamic processes and their mutual feedback with river ecosystems. He mainly uses modelling approaches to study sediment dynamics, thermal transport, vegetation and habitat dynamics.