

IST – EPFL Joint doctoral Initiative

Thesis Topic Proposal Form

TITLE: CATCHMENT-SCALE TRANSPORT PROCESSES. THEORETICAL AND EXPERIMENTAL STUDIES
FOCUS AREA: Environmental Hydraulics
Short Description

-- The research aims at a general model of basin-scale solute circulation in the hydrologic response

-- The experimental part concerns measuring total solute mass in transpiration fluxes in a controlled lysimeter experiment. Lysimeters installation exists at EPFL

-- The theoretical part will exploit the formulation of transport by nonstationary travel time distributions and storage selection functions.

Challenges at the forefront of hydrologic research concern the experimental evaluation of how vegetation uptake modifies solutes' residence and travel time distributions

Keywords:
SUPERVISORS

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Doct. Program: Civil Engineering

Doct. Program: Civil and Environmental Engineering

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Start institution: EPFL