

Coupling numerical approaches for a deeper assessment of karst groundwater vulnerability

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▶ To cite this version:

Vianney Sivelle, Hervé Jourde, Pierre Fischer, Yohann Cousquer, Mohammed Aliouache, et al.. Coupling numerical approaches for a deeper assessment of karst groundwater vulnerability. Eurokarst 2022 - 3rd European Conference on Karst Hydrogeology and Carbonate Reservoirs, Jun 2022, Malaga, Spain., 2022. hal-03715038

HAL Id: hal-03715038

https://imt-mines-ales.hal.science/hal-03715038v1

Submitted on 29 Nov 2022

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Solute transport











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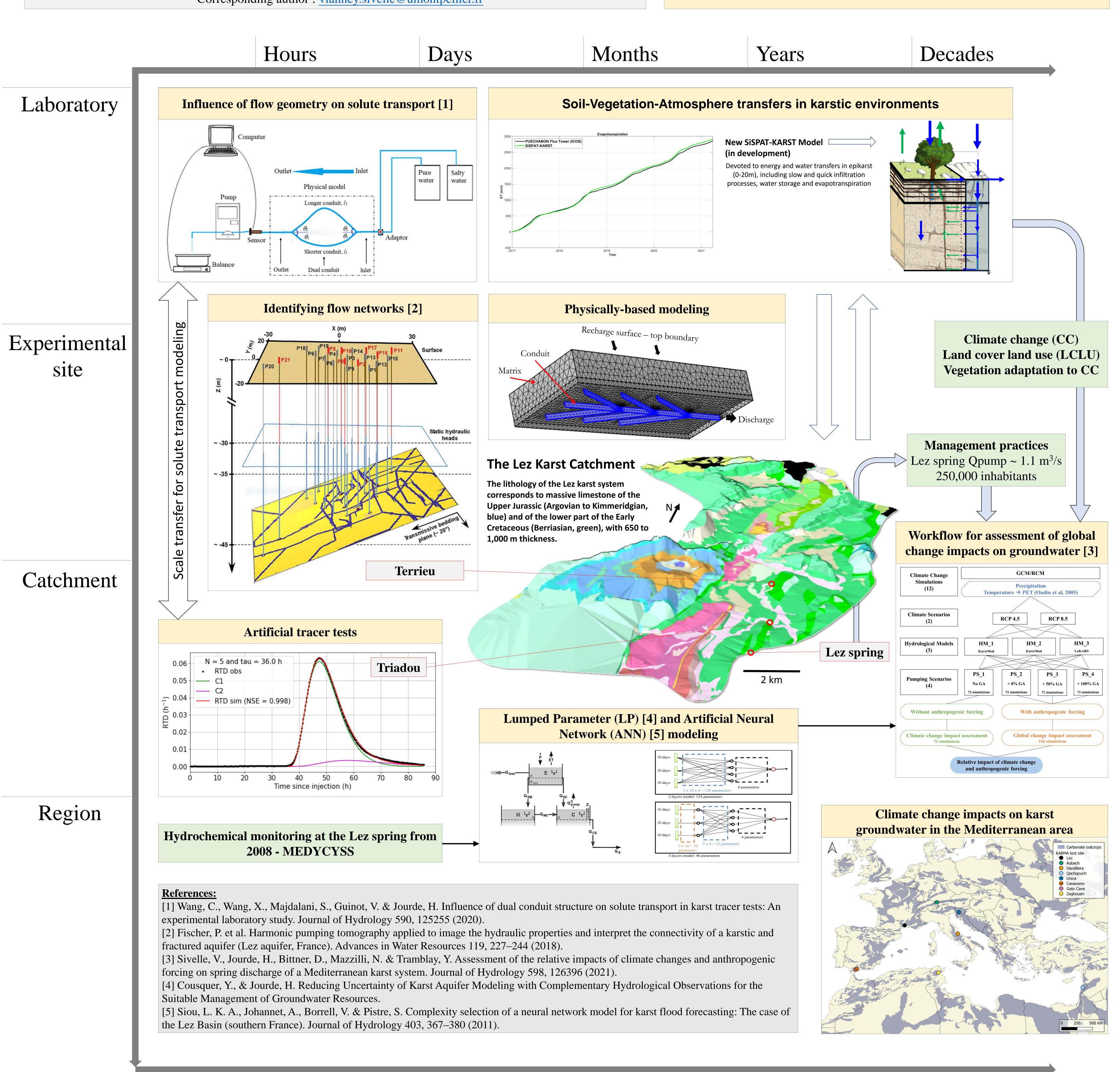
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Objective

HydroSciences Montpellier (HSM) laboratory develops various tools for a deeper assessment of karst groundwater resources across a wide range of spatiotemporal scales. The objective is to assess karst groundwater vulnerability (regarding both quantitative and qualitative aspects) in a context of global change.

Climate change impacts



Perspectives

Hydrodynamics

The proposed approaches mainly consist in the development of innovative methods for the interpretation of artificial tracer tests. In addition, natural tracers as well as electrical conductivity or dissolved gas provide insight about flow processes within the karst aquifers, and constitutes relevant data for hydrological modelling. Tools for the analysis of non-reactive solute transport with potential application to reactive transport are also developed, with potential perspectives for the simulation of pollutogramme and development of Early-Warning System (EWS).