

## Special Issue

# Soil Hydraulic Properties Characterization for Improving Water Availability: Second Edition

### Message from the Guest Editors

In this Special Issue, we focus on experimental and theoretical challenges and state-of-the-art approaches to the characterization, measurement, and modelling of the hydraulic properties of soil. The scope of this Special Issue includes, but is not limited to, the following topics:

Field and laboratory infiltration measurements;  
Plant water availability for precision agriculture;  
Inverse methods for soil hydraulic characterization;  
Use of geo-physical techniques for modeling soil structure and water flow;  
Modeling of preferential flows;  
Remote sensing application to soil hydraulic characterization;  
Interaction between soil properties and ecosystems water use efficiency;  
Effects of soil use and management on physical quality and hydraulic properties;  
Interactions between water quality and vadose zone hydrology;  
Use of organic amendments for soil restoration;  
Effects of biogeochemical processes on soil hydraulic properties;  
Urban soils and technosoils characterization for green infrastructures.

### Guest Editors

Dr. Vincenzo Alagna

Dr. Dario Autovino

Prof. Dr. Massimo Iovino

### Deadline for manuscript submissions

20 December 2025



## Applied Sciences

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## About the Journal

### Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
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