

Special Issue

Structural Safety Evaluation and Fluid–Solid Interaction of Hydraulic and Geotechnical Engineering

Message from the Guest Editors

Dams and geotechnical systems play a vital role in water resources management, energy production, flood protection, and infrastructure resilience. Ensuring their safety and long-term reliable performance under both normal and extreme loading conditions is therefore of critical importance. In particular, seepage processes and the complex interactions among fluids, soils, and structures significantly influence the mechanical behavior, stability, and durability of hydraulic and geotechnical systems. This Special Issue aims to present recent advances in safety evaluation and multi-physics interaction mechanisms in hydraulic and geotechnical engineering. Topics of interest include, but are not limited to, the following:

- Safety evaluation of hydraulic and geotechnical structures;
- Seismic analysis of hydraulic and geotechnical structures;
- Hydrodynamic effects and sloshing in liquid storage systems;
- Seepage behavior of geotechnical materials and structures;
- Rheology of fluids and non-Newtonian fluid behavior in porous media;
- Computational fluid dynamics (CFD);
- Data-driven methods in geotechnical and hydraulic engineering.

Guest Editors

Dr. Jishuai Wang
Dr. Chengcheng Tao
Dr. Chaoning Lin

Deadline for manuscript submissions

20 January 2027



Water

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 6.7



mdpi.com/si/282899

Water
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
water@mdpi.com

[mdpi.com/journal/
water](https://mdpi.com/journal/water)





Water

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 6.7



[mdpi.com/journal/
water](https://mdpi.com/journal/water)



About the Journal

Message from the Editor-in-Chief

In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

Editor-in-Chief

Dr. Jean-Luc PROBST

Centre de Recherche sur la Biodiversité l'Environnement (CRBE) UMR CNRS/UPS/INPT/IRD, Centre National de la Recherche Scientifique (CNRS), University of Toulouse, Campus ENSAT, Auzeville Tolosane, Toulouse, France

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, GEOBASE, GeoRef, PubAg, AGRIS, CAPlus / SciFinder, Inspec, and other databases.

Journal Rank:

JCR - Q2 (Water Resources) / CiteScore - Q1 (Aquatic Science)