

## Special Issue

# Application of Data-Driven Methods for Analyzing Complex Environmental and Ecological Data

### Message from the Guest Editors

Recent evolutions in sensor technology and big data have provided the environmental community with continuously expanding resources for data collection. Traditionally, biological, chemical, and physical parameters of waterbodies are measured monthly, weekly, or biweekly. Nowadays, more and more inland waters are well monitored by online automatic instruments, giving access to long-term datasets with high monitoring frequencies. Many data-driven methodologies have been presented to address this issue, including linear and nonlinear models. This enables new strategies in water quality management. An important feature of the field-based study is that we use variables operating at different spatiotemporal scales. The water quality response may be driven both by local changes in the catchment and by regional variations of parameters within a lake. Therefore, cross-scale interactions defined as patterns or processes at one scale that affect driver-response relationships taking place at a different scale may account for model performance.

---

### Guest Editors

Dr. Kun Shan

Prof. Dr. Lin Li

Prof. Dr. Jianming Deng

---

### Deadline for manuscript submissions

closed (15 June 2023)



## Water

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.0  
CiteScore 6.0



[mdpi.com/si/99434](https://mdpi.com/si/99434)

*Water*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[water@mdpi.com](mailto:water@mdpi.com)

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





# Water

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.0  
CiteScore 6.0



[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)