Special Issue

Advances in the Measurement, Utility and Evaluation of Precipitation Observations: 2nd Edition

Message from the Guest Editors

Precipitation is a critical component of the hydrological cycle, directly impacting various hydrologic processes such as runoff, groundwater recharge, and flood management. This Special Issue seeks contributions that address the challenges and innovations in precipitation measurement. Topics of interest include, but are not limited to, remote sensing technologies, ground-based observations, the integration of multiple data sources, the development of novel methodologies to improve precipitation measurement accuracy, and the simulation of rainfall-runoff processes:

- Statistical modeling of rainfall patterns;
- Deep learning approaches for precipitation measurement:
- Leveraging Internet of Things (IoT) for enhanced precipitation estimation;
- Multi-source rainfall observation fusion;
- Uncertainty and bias analysis in rainfall data;
- Impacts of climate change on precipitation trends;
- Remote sensing techniques for precipitation observation;
- Satellite-based precipitation monitoring and evaluation;
- Disaster and risk analysis induced by precipitation;
- Applications of precipitation data in hydrological modeling.

Guest Editors

Prof. Dr. Jiangjiang Zhang

Yangtze Institute for Conservation and Development, Hohai University, Nanjing 210098, China

Prof. Dr. Junliang Jin

Yangtze Institute for Conservation and Development, Hohai University, Nanjing 210098, China

Deadline for manuscript submissions

31 August 2026



Hydrology

an Open Access Journal by MDPI

Impact Factor 3.2 CiteScore 5.9



mdpi.com/si/252420

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

mdpi.com/journal/ hydrology





an Open Access Journal by MDPI

Impact Factor 3.2 CiteScore 5.9





About the Journal

Message from the Editor-in-Chief

Hydrology is the study of the waters of the Earth. Hydrology has close ties with hydraulics, hydrogeology and the multiple sciences that study the atmosphere, the land surface, the soil and the subsoil, and ranges from complex problems of risk, forecasting and optimization of water resources to interactions with ecological, urban, social and economic systems. The purpose of *Hydrology* is then to provide a journal where research results and real-world problems can be presented and discussed in order to bridge the traditional gaps between the academic world and the professionals and decision makers. Therefore, Hydrology, invites authors to submit their original theoretical, field, experimental, and numerical studies on hydrology with strong emphasis on multidisciplinary approaches and interdisciplinary topics, which cross the typical boundaries of our science.

Editor-in-Chief

Prof. Dr. Ezio Todini

Italian Hydrological Society, Piazza di Porta San Donato 1, 40126 Bologna, Italy

Author Benefits

High Visibility:

indexed within Scopus, ESCI (Web of Science), PubAg, GeoRef, and other databases.

Journal Rank:

JCR - Q2 (Water Resources) / CiteScore - Q1 (Oceanography)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.7 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the first half of 2025).