Special Issue

Advances in Flood Studies: Enhancing Data Collection, Rating Curves, and Hydrological Analyses

Message from the Guest Editors

This Special Issue will welcome manuscripts that link the following themes:

- Data assimilation techniques for flood modelling;
- Remote sensing, sensor network, IoT for real-time hydrological monitoring;
- Citizen science and crowdsourced data for flood studies;
- Hydraulic modelling, machine learning, and AI applications in rating curve development;
- Uncertainty in rating curve development and extrapolations;
- Integrating field measurements with computational techniques;
- Hydrological modelling, rating improvements, and flood forecasting;
- Integration with geographic information systems (GISs) and hydrological models;
- Improving parameterisation and uncertainty analyses in rainfall–runoff models;
- Improved methodologies for estimating hydrological losses;
- Parametric and non-parametric loss modelling;
- Impact of land use changes on hydrological losses;
- Impact of land use changes on flood estimation, e.g., catchment fires;
- Probabilistic approaches for loss modelling;
- Effect of storm burst patterns and antecedent conditions in loss quantification, etc.

Guest Editors

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Dr. David Kemp

Dr. Ranjan Sarukkalige

Deadline for manuscript submissions

31 July 2026

Hydrology

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 5.9

mdpi.com/si/231748

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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

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Author Benefits

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

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.9 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the second half of 2025).