Special Issue

Modern Developments in Flood Modelling

Message from the Guest Editors

This Special Issue highlights current efforts in advancing the science and applications in flood engineering and more specifically in a wide spectrum of its related geosciences such as hydrology, hydraulics, sedimentation, river restoration. We, therefore, encourage researchers and experts to present their innovative contributions in the following areas:

- Recent remote sensing dataset (rainfall, flood footage etc) and its use in flood modelling;
- Compound events (fluvial, pluvial, coastal flooding and flooding due to a structure failure) and the integration of each driver, along with innovative ideas joint probability flooding models;
- Advances in early flood forecasting systems;
- Advanced approaches in erosion and sedimentation modelling;
- New trends in dam break problems;
- Extreme rainfall and runoff statistical analysis;
- Climatological analysis on quantifying long term changes in annual maximum flooding patterns;
- New developments on natural retention measures (green and green-grey approach);
- Worldwide best practises highlighting the importance of integrated flood relief schemes for adapting city resilience.

Guest Editors

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Dr. Vasilis Bellos

Deadline for manuscript submissions

closed (31 January 2023)

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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)

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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).