

Special Issue

UAS and Satellite-Based Remote Sensing for Hydrological Observations and Applications

Message from the Guest Editors

In recent years, advances in Remote Sensing observations allowed us to improve our monitoring capabilities with regard to the hydrological variables of the water cycle, such as *precipitation, evapotranspiration, soil moisture* and *river flow*. Satellite missions have been developed to characterize such variables at regional to global scale (with coarse and intermediate resolution), and UAS data are used to bridge the scales from point-to-catchment scale observations (with high spatial and temporal resolution). This Special Issue will promote advances in Satellite and UAS methodologies for monitoring hydrological variables, exploring uncertainty and sensitivity assessments. We welcome contributions with strong relevance to the characterization of hydraulic and hydrological processes and the development of modeling approaches. Studies that propose technical solutions to combine large-scale observations and local observations, as well as modeling and big data analytics tools, are encouraged.

Guest Editors

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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

Prof. Dr. Ezio Todini

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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).