

Special Issue

Impacts of Land Use Changes on Hydrological Processes and Modelling

Message from the Guest Editor

Impacts of land use and climate changes have severely modified hydrological processes and the runoff pattern, as well as erosion and sediment transport. The main task of this Special Issue is to collect a series of papers addressing the impact assessment on flow processes and residence times at different spatiotemporal scales. The following research questions could be addressed: How can we discriminate among impacts originating from different drivers acting on the hydrological regime? How can we estimate hydrological parameters utilizing additional information, such as biological, physical, and chemical data, characterizing land use patterns? How can we handle the spatiotemporal heterogeneity of several layers of parameters in the modeling approach? What are the basic requirements for a reasonable model structure to link land use with representative hydrological parameter layers?

Guest Editor

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Deadline for manuscript submissions

closed (30 June 2021)



Hydrology

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 5.9



mdpi.com/si/51882

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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 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).