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Application of Machine Learning in Hydrologic Sciences

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Deadline for manuscript submissions:

closed (20 August 2025)

Message from the Guest Editors

In the last years, applications based on machine learning (ML) have been widely used to solve problems in different scientific areas. Within the current ML algorithms, support vector machines, Bayesian networks, and artificial neural networks, among others, can be mentioned.

Currently, there are many monitoring instruments/stations that allow a daily collection of hydrological data. Different ML-based models can be fed with these data to study/model the following: dam/water supply management, extreme events, natural/anthropogenic changes in lakes, transport of pollutants, drinking water quality, landslides induced by rain, etc.

The objective of this Special Issue on “Application of Machine Learning in Hydrologic Sciences” is to present current research on the aforementioned problems (but not limited exclusively to them) using machine learning.

We invite all researchers, working in hydrological sciences and ML, to submit research or review articles that demonstrate the significant potential of machine learning in this field.



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Special Issue



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Message from the Editor-in-Chief

In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

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