Application of Big Data and Deep Learning in Hydrological Modelling, Flood and Drought Monitoring

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Message from the Guest Editors

The synergy of abundant digital data and rapid advances in deep learning has uniquely positioned us to enhance hydrological models and flood/drought monitoring. This Special Issue converges hydrology, data science and AI to explore how big data (e.g., remote sensing, reanalysis data, in situ monitoring, etc.) and deep learning can bolster hydrological modelling, flood prediction and drought tracking.

Our aim is to curate a comprehensive collection of articles showcasing inventive methodologies, case studies and applications. These innovations integrate big data and deep learning in hydrological processes, introducing novel models, algorithms and frameworks that harness vast datasets and advanced machine learning to refine the accuracy, efficiency and reliability of hydrological predictions.

This Special Issue bridges the gap between conventional hydrological modelling and emerging data-driven approaches. By offering a platform for researchers to exchange insights, it contributes to ongoing discussions on sustainable water management, disaster resilience and climate adaptation...

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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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