

Special Issue

Drought Monitoring and Modeling Utilizing Advanced Machine Learning Models

Message from the Guest Editors

Drought is usually considered a natural hazard that can be caused by a decrease in rainfall and an increase in ambient air temperature. It can cause significant changes in the water resources, agriculture, and hydrology of an area. Many drought indices have been developed and proposed for monitoring the drought status of a particular location, which can be categorized into agricultural, meteorological, and hydrological droughts. In recent years, machine learning models have attracted significant attention among scholars when monitoring and modeling the droughts. This Special Issue aims to report recent advances in the forecasting of various drought indices, including standardized precipitation index (SPI), standardized precipitation evapotranspiration Index (SPEI), reconnaissance drought index (RDI), and Palmer's drought severity index (PDSI), etc., applying machine learning models. In this context, hybrid paradigms of machine learning models are highly recommended.

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Deadline for manuscript submissions

closed (15 December 2023)



Water

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CiteScore 5.8



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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.

Editor-in-Chief

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