Special Issue

Advanced Hydrological Models Applications and Fidelity

Message from the Guest Editors

This Special Issue invites studies covering, but not limited to, the following areas:

- Improving hydrological process and water management representation in physically based hydrological models for better understanding of hydrological processes and accuracy of hydrological simulations;
- Utilizing different types of data (in situ observations, remote sensing datasets, and reanalysis products) in constraining hydrological models for better understanding of model behaviors and diagnosing model and data discrepancies;
- Developing and exploring novel data-model fusion approaches to integrate multi-source data and hydrological modeling framework for better quantifying water cycle dynamics from regional and global scales;
- Applying advanced and novel methodologies and techniques for evaluating and assessing hydrological performance of models (e.g., data assimilation, machine learning, uncertainty quantification, hybrid modeling);
- Reviewing multi-source data and their associated uncertainties and interaction with models in hydrological model applications, and water balance error analysis.

Guest Editors

Dr. Jefferson S. Wong

Global Institute for Water Security, University of Saskatchewan, 11 Innovation Blvd, Saskatoon, SK S7N 3H5, Canada

Dr. Fuad Yassin

Centre for Hydrology, University of Saskatchewan, 121 Research Drive, Saskatoon, SK. S7N 1K2, Canada

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Geosciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
geosciences@mdpi.com

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Message from the Editor-in-Chief

Understanding the Earth's origin and its bio-geological evolution, the multiple implications of the geosciences (as a coherentset of interconnected disciplines), and the sociocultural and ethical interdisciplinary approaches, will be crucial for a better understanding of Nature, and also for undertaking scientificallybased political decisions.
We are committed to drive *Geosciences* to a position in which it is recognized for its high-quality, cutting-edge research and scientific influence, and strongly encourage and invite your participation and manuscripts.

Editor-in-Chief

Prof. Dr. John C. Eichelberger
Alaska Center for Energy and Power, University of Alaska Fairbanks, Fairbanks, AK, USA

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