



Advances in Modelling of Rainfall Fields

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Message from the Guest Editors

The aim of this Special Issue is to provide a collection of innovative contributions for rainfall modelling, **focusing on hydrological scales and on a context of climate changes**. In particular, the following topics are of interest:

1. Statistical analysis of rainfall extremes, mainly focusing on Intensity-Duration-Frequency (IDF) curves and evaluation of Rainfall Thresholds;
2. Temporal and spatial rainfall distribution;
3. Transient Stochastic Rainfall Generators, suitable for obtaining long and perturbed time series into a context of climate changes;
4. Models for rainfall nowcasting at hydrological scales, which can also couple several data sources (from rain gauge networks, weather radar, outputs from Limited Area Models) into a Bayesian framework;
5. Rainfall downscaling





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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.

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