



Modelling Precipitation in Space and Time

Guest Editor:

Dr. Gabriele Buttafuoco

National Research Council of Italy, Institute for Agricultural and Forest Systems in the Mediterranean (ISAFOM), 87036 Rende, CS, Italy

Deadline for manuscript submissions:

closed (31 August 2021)

Message from the Guest Editor

Modeling precipitation in space and time over specified areas, such as a hydrological catchment or a grid-cell of various climatic, hydrologic, and ecological models is of great interest. In modeling precipitation, the key issue is the choice of an interpolation approach. In areas with low relief, even distribution of rain gauges and abundant data, most interpolation techniques give similar results. Unfortunately, such conditions are rarely met, and when data are sparse, especially in mountainous areas, the implicit or explicit underlying assumptions about the variation among measured points may differ significantly even at relatively reduced scales. Moreover, modeling precipitation enables making inferences about the knowledge of the precipitation process, and caution is required in using information on precipitation relying only on statistical relationships.

Potential topics include but are not limited to the following:

- Interpolating precipitation in space, in time, and in space and time;
- Methods for quantifying uncertainty;
- Accounting for missing data in precipitation series;
- Using environmental covariates to improve precipitation modeling.





water



an Open Access Journal by MDPI

Editor-in-Chief

Dr. Jean-Luc PROBST

Centre de Recherche sur la Biodiversité l'Environnement (CRBE) UMR CNRS/UPS/INPT/IRD, Centre National de la Recherche Scientifique (CNRS), University of Toulouse, Campus ENSAT, Auzeville Tolosane, Toulouse, France

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), Ei Compendex, GEOBASE, GeoRef, PubAg, AGRIS, CAPlus / SciFinder, Inspec, and other databases.

Journal Rank: JCR - Q2 (*Water Resources*) / CiteScore - Q1 (Water Science and Technology)

Contact Us

Water Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/water
water@mdpi.com
[X@Water_MDPI](https://twitter.com/Water_MDPI)