

Special Issue

Time-Resolution of Rainfall Data and Its Role in the Hydrological Analyses

Message from the Guest Editors

Rainfall data recorded by gauges provide key forcing in most hydrological studies. Depending on sensor type and recording systems, such data are characterized by different time-resolutions, t_a . For the dated rain gauge networks, installed in the 19th century or during the first decades of the 20th century, recordings started in manual mode with coarse time-resolution. Mechanical recordings on paper rolls, with t_a typically in the range 30 minutes-1 hour, began in the first half of the 20th century. Digital data logger registrations began during the last two decades of 20th century, providing the possibility of any temporal aggregation, also equal to 1 minute. Most of older rain gauge networks have changed the registration methods during their lifetimes; in some cases they have been changed more than one time, from manual to mechanical and finally to digital. It has been demonstrated that annual maximum rainfall depth (Hd) series, for given durations, d , obtained from rainfall data characterized

Guest Editors

Prof. Dr. Renato Morbidelli

Dr. Carla Saltalippi

Dr. Alessia Flammini

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

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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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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

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