Special Issue

Numerical Modeling of Sediment Transport and River Morphodynamics

Message from the Guest Editors

The numerical modelling of sediment transport in fluvial environment is under constant development. The recent technological improvement in terms of computational speed made it possible to investigate highly resolved processes in time and space. The results are used to gain insights into processes which previously have not been possible to look at due to CPU constraints or the lack of suitable measurement technology. These processes comprise, for example, grain-grain interaction such as sorting and incipient potion, near bed flow characteristics under the full range of relative submergance, local scouring, clogging, geophysical flows, consolidation in the context of river engineering, ecohydraulics interaction with hydraulic structures and hydro power development. The current Special Issue reflects therefore on the recent developments in the field of numerical sediment transport modelling for engineers and geographers, both for basic and applied research cases. Furthermore, this issue will document the current state of the development and application of hydrodynamic models coupled to sediment transport in all three dimensions.

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Deadline for manuscript submissions

closed (31 October 2021)



Water

an Open Access Journal by MDPI

Impact Factor 3.0 CiteScore 6.0



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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

Dr. Jean-Luc PROBST

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