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Numerical Modeling of Sediment Transport and River Morphodynamics

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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 motion, near bed flow characteristics under the full range of relative submergence, 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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Special issue



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Message from the Editor-in-Chief

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