Special Issue

Simulation and Analysis of Flood Disaster in River Basins during Typhoons and Heavy Rainstorms

Message from the Guest Editors

Global warming and climate change have increased typhoons and heavy rainstorms. The loss in occasions of flood disaster is severe because the population is more concentrated in urban areas. The simulation of a flood event is initiated from the upstream rainfall–runoff process, midstream flood wave propagation to the downstream inundation imitation. Flood disaster prevention can be implemented through structural or nonstructural measures. Since both are based on a series of hydrological simulations, a better understanding of current flood simulation methods is considered necessary. **Keywords:** Hydrology, hydraulic Rainfall–runoff processes Flood wave propagation Inundation simulation Stability of numerical algorithms Historic flood analysis Flood forecasting and risk analysis Sediment transport during flood Flood economic impact

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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.

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