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Application of Artificial Intelligence for River Hydrodynamics Modeling

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Deadline for manuscript submissions:
closed (25 February 2022)

Message from the Guest Editors

This Special Issue of Applied Sciences welcomes computational modeling and AI-driven approaches for river engineering problems including river hydraulic modeling, hydrological simulation, hybrid simulation of hydraulics and machine learning, and data fusion and predictability. In particular (i) approaches that can aggregate a wide variety of data sources in simulation, including deep learning based river system simulation techniques, (ii) computing systems with advanced optimization techniques that can quantify, and ideally minimize the error and uncertainty associated with models and data integration, (iii) computational learning techniques for river dynamic computation of non-linear and complex systems, and (iv) data modeling and database development. We also encourage contributions in integrative approaches such as integrating AI with traditional 2D/3D river computational modeling, physics-based streamflow simulation, and water resources related data mining and computational systems especially at local, national, and continental scales.

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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