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Application of Machine Learning and Artificial Intelligence in Surface Flow Simulation

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Message from the Guest Editors

The development of increasingly sophisticated artificial intelligence (AI) techniques, combined with rapid increases in computing power, has prompted research into advanced methods for data-driven and model-driven surface flow simulation in the past few years. AI and its subfields including machine learning (ML) and deep learning (DL) have proved to be proficient for predictive modeling and exploratory data analysis, particularly in drainage systems with complex and non-linear processes.

This Special Issue of Applied Sciences welcomes theoretical and AI/ML/DL computational modeling including data-driven and model-driven contributions that can advance our understanding of surface flow processes and predictability. We also encourage contributions in integrative approaches such as physical based surface flow modeling and AI/ML/DL computational systems, especially at local, national, and global scales.

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