Special Issue

Hydrodynamics in Pressurized Pipe Systems

Message from the Guest Editor

The field of hydrodynamics, the study of fluids in motion, presents a vast array of challenges, spanning scientific and engineering realms. Among these challenges, the task of understanding and predicting transient flow phenomena, especially in pipe systems, stands out. Transient pipe flow poses unique challenges due to its dynamic nature, where the fluid flow conditions rapidly change in response to factors like valve operations, pump start-ups or shutdowns, and sudden changes in flow rate or pressure. Water hammer, a key concern in transient flow, can lead to pressure surges that can potentially damage the system, thus necessitating sophisticated modeling techniques and control strategies for mitigation. Beyond the transient flow challenges, hydrodynamic research grapples with broader issues such as optimizing fluid transport efficiency, reducing energy consumption, and mitigating environmental impacts. Understanding turbulent flow behavior, for instance, is crucial across various industries, [...]For further reading, please follow the link to the Special Issue Website at: https://www.mdpi.com/journal/water/special_issues/4TT8544L11

Guest Editor

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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

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