Special Issue

Advances in Computational and Experimental Fluid Dynamics

Message from the Guest Editors

Fluid dynamics research is fundamentally rooted in three key approaches: experimental investigation, analytical modeling, and numerical simulation. In recent years, the rise of artificial intelligence (AI) has introduced powerful new methodologies—both data-driven and physics-informed—that are rapidly transforming the field. These techniques offer valuable tools for uncovering complex flow behaviors, optimizing designs, and enhancing predictive capabilities.

This Special Issue invites researchers from both academia and industry to submit original contributions that advance our understanding and application of computational fluid dynamics (CFD), experimental methods, and AI-based modeling in fluid dynamics. Submissions may explore a wide range of topics, including simulations of compressible and incompressible flows, experimental studies that provide new insights into fluid behavior, and the application of CFD to energy-related systems such as wind, hydrogen, solar, and hydropower.

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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.

Editor-in-Chief

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