Special Issue

Fluid Mechanics, Numerical Analysis, and Dynamical Systems

Message from the Guest Editors

The fields of fluid mechanics, numerical analysis, and dynamical systems have made significant progress in recent years due to the increasing complexity of physical phenomena that require precise computational models. These areas of study focus on understanding and predicting the behavior of flows and dynamic systems, which often exhibit nonlinear and chaotic characteristics. Recent advances in these areas have enabled researchers to develop more sophisticated models based on classical theories and real-world data to accurately simulate the intricate dynamics of complex systems. This Special Issue of Mathematics focuses on the role of numerical analysis in fluid mechanics and dynamical systems and shows how modern computational methods can unravel the complexity of these phenomena.   We invite authors to submit papers that present new numerical methods, innovative models of fluid dynamics, and simulations that illustrate the effectiveness of these techniques. In addition, this Issue seeks contributions that propose breakthrough methods for modeling and simulating fluid–structure interactions and multiphase flows.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

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