Special Issue

Numerical Advances in Computational Fluid Dynamics

Message from the Guest Editors

This Special Issue in the Mathematics journal aims to explore recent advancements in mathematical modelling and numerical methods in computational modelling. This Special Issue invites original research contributions that focus on the development and implementation of numerical methods, code verification, and code validation techniques in the context of computational fluid dynamics or solid mechanics. Topics of interest include but are not limited to Mathematical modelling: Papers that propose new mathematical models or refine existing models for describing complex multiphase flows; Numerical methods: Novel numerical methods, including finite difference, finite volume, finite element, and other mesh-based techniques. Code verification and validation: Studies that address code verification and validation methodologies in the context of fluid flow simulations and solid mechanics. Researchers and practitioners including applied mathematics, mechanical engineering, chemical engineering, fluid dynamics, and solid mechanics, are encouraged to submit their original research articles, reviews, and case studies to this Special Issue.

Guest Editors

Dr. Célio Fernandes

Prof. Dr. Leandro Franco Souza

Prof. Dr. Antonio Castelo Filho

Deadline for manuscript submissions

closed (20 April 2025)

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Mathematics

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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.

Editor-in-Chief

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