Special Issue

Advances in Numerical Analysis: Applications of Finite Element Methods, Fractional Differential Equations, and Emerging Computational Techniques

Message from the Guest Editor

This Special Issue aims to present the significant advancements in numerical analysis, focusing on finite element methods, fractional differential equations, wavelet methods, epidemic models, and emerging computational techniques. We invite original research articles, comprehensive review papers, and case studies that address the development, application, and interdisciplinary integration of these computational approaches into complex systems. The objective of this Special Issue is to provide a collaborative platform for researchers and practitioners to exchange ideas, explore new methodologies, and address challenges in the numerical simulations of real-world problems. All submissions will undergo a rigorous peer-review process to ensure academic quality and integrity. This Special Issue aims to advance the development of innovative computational frameworks that improve the understanding of complex systems, with a particular focus on epidemic modeling and applied mathematics. It seeks to expand the scope of numerical analysis by incorporating wavelet methods and fractional approaches, offering more accurate and efficient solutions to real-world challenges.

Guest Editor

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Deadline for manuscript submissions

10 September 2025

Mathematics

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.6

mdpi.com/si/225572

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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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