

Special Issue

Numerical Methods for Solving Nonlinear Problems in Science and Engineering

Message from the Guest Editors

The rising complexity of real-world problems, alongside ongoing advances in computational theory, continues to drive the need for innovative numerical simulation methods and efficient computational algorithms. This Special Issue of Mathematics welcomes original and survey contributions that introduce novel mathematical tools and numerical methods for computational challenges. It aims to showcase cutting-edge developments bridging classical numerical analysis, scientific machine learning, and related computational approaches. Numerical analysis designs, analyzes, and applies algorithms to solve core mathematical problems in engineering, the sciences, medicine, social sciences, and business. Topics of interest include the following: numerical stability, interpolation, approximation, quadrature methods, numerical linear algebra, ordinary differential equations with initial and boundary conditions, partial differential equations, numerical fractional analysis, optimization, integral equations, and iterative methods for solving nonlinear equations, systems, real problems in sciences, and engineering.

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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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