Special Issue

Mathematical Models and Computational Methods in Engineering: From Finite Element Analysis to Geometric Modeling

Message from the Guest Editor

This Special Issue aims to present recent advances in mathematical modeling and computational methods with applications in engineering and scientific computing. Topics include finite element methods (FEM), isogeometric analysis (IGA), boundary element methods (BEMs), and meshfree methods, particularly with regard to how they relate to problems in structural mechanics, fluid dynamics, and multi-physics coupling. We welcome submissions focusing on the development of novel mathematical models, efficient numerical algorithms, and high-performance computing techniques. Studies involving computer-aided geometric design, spline-based discretizations, and their integration with simulation frameworks are especially encouraged. Both theoretical contributions and application-driven research that address real-world engineering challenges are of interest.

Guest Editor

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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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