Special Issue

New Trends in Mathematical Modeling, Analysis and Optimization for Engineering and Mechanics

Message from the Guest Editors

Computational modeling has become essential in the engineering field in recent years for necessary analyses for real-life problems. Moreover, optimization techniques have arisen to improve results for several kinds of problems. Finally, in recent years, new techniques such as meshfree methodologies as well as novel finite element methods have emerged to complete a powerful range of tools capable of accurately reproducing the engineering mechanical problems of the 21st century. This Special Issue focuses on new trends in engineering modeling, including but not limited to: 1. Optimization techniques in computational mechanics;
2. Meshfree techniques applied to engineering;
3. Novel constitutive modeling for engineering materials;
4. Computational analysis for mechanics and engineering;
5. Bio-inspired optimization algorithms for computational modeling;
6. Multiscale material modeling;
7. Multiphase formulations applied to engineering;
8. General new trends in computational mechanics.

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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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