Recent Development and Application of Methods in Computational Mechanics

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Message from the Guest Editors

Computational mechanics, a discipline of physics, mathematics, and computer science, has had a profound impact on science and technology over the past few decades. It has transformed much of the classical Newtonian theory into practical tools to predict and understand complex systems, particularly when it becomes too difficult to obtain analytical solutions in realistic conditions.

As a result, the Special Issue concentrates on the state of the art in computational-mechanics methods, combined with other recent experiments and analytical analyses, offering a more-in-depth insight. Therefore, you are invited to submit original research papers and/or comprehenssive review articles on, but not limited to, the following topics:

1. Modern methods on modeling fracture patterns;
2. Neural-network-based methods for fluid flow in porous media;
3. Computational simulation of magnetohydrodynamics (MHD);
4. Multi-dimensional simulation of (multi-phase) fluid flow;
5. Biomedical applications of computational mechanics;
6. Revision/improvement of conventional numerical methods.

Special Issue

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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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