

Special Issue

Computational Biomechanics and Numerical Analysis: Algorithms and Applications

Message from the Guest Editors

This Special Issue provides a platform for researchers and professionals in biomechanics to disseminate and discuss recent computational methods and numerical analyses. This issue focuses on the design and application of new algorithms, modeling techniques, and simulations that address critical issues in the field of biomechanics, including topics such as tissue analysis, prostheses, passive safety, and medical robotics. Thus, this Special Issue explores the role of computational biomechanics in improving our understanding of the behavior of biological tissues under various conditions. We invite studies that focus on tissue modeling, mechanical characterization of tissues, and the use of finite element and multiscale modeling approaches to predict the response of tissues under different conditions from a biological perspective. Contributions dedicated to medical robotics are also welcomed, especially mechanisms related to human-robot collaboration, surgical assistance, and rehabilitation capabilities. This Special Issue invites both theoretical studies and accomplished research with experimental validation based on real-world applications.

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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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