

Special Issue

Biomechanical Analysis in Bioengineering: New Trends and Perspectives

Message from the Guest Editors

The development of biomechanical analyses will continue to advance our understanding of different mechanical aspects of biological systems. Advanced experimental and computational biomechanics techniques are expected to play a crucial role in personalised medicine, prevention, monitoring, diagnosis, treatment, rehabilitation, and assistive devices.

This Special Issue aims to explore the latest trends in and perspectives on biomechanical analysis in diverse areas within the field of biomechanics. We invite submissions of original research articles, reviews, perspectives, and methodological studies that address emerging biomechanical technologies.

Topics of interest include, but are not limited to, the following:

- Computational biomechanics;
- Experimental biomechanics;
- Advanced imaging techniques for biomechanical analyses;
- Biomaterials and implants;
- Cardiovascular and respiratory biomechanics;
- Orthopaedic biomechanics;
- Sports biomechanics;
- Human movement and ergonomics;
- Multidisciplinary approaches for biomechanics;
- Physics-based and data-driven biomechanical models;
- High-performance computing for biomechanical analyses.

Guest Editors

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Deadline for manuscript submissions

closed (20 January 2026)



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About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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