

Special Issue

Multiscale Modeling in Computational Biomechanics

Message from the Guest Editor

Computational biomechanics has been intensively investigated for the study of human body systems (musculoskeletal, cardiovascular, digestive, etc.) at multiple scales. Computational biomechanics is usually coupled with experimental biomechanics to enhance our understanding of the human body shape–function properties and their causal relationships. Thus, novel biomarkers and quantitative indicators have been extracted for clinical decision support and medical device optimization. This Special Issue aims to bring together different scientific communities to present methodological approaches as well as practical applications related to the multiscale modeling of the human body. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

Cell and tissue biomechanics;

Organ biomechanics;

Musculoskeletal biomechanics;

Human locomotion and multi-body dynamics;

Artificial intelligence, deep learning and biomechanics;

Mixed reality and biomechanics;

Clinical decision support;

Multiscale characterization and multi-physical modeling;

Multimodal medical imaging.

Guest Editor

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Deadline for manuscript submissions

closed (30 June 2024)



Bioengineering

an Open Access Journal
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Impact Factor 3.7
CiteScore 5.3
Indexed in PubMed



mdpi.com/si/113622

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Message from the Editor-in-Chief

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Editor-in-Chief

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