Special Issue

Computational Biomechanics

Message from the Guest Editor

Computational biomechanics utilizes computational techniques (e.g., finite volume method, finite element method, finite difference method, lattice Boltzmann method, boundary element method) to understand the mechanical behaviors of human tissue as well as the musculoskeletal system. This Special Issue is dedicated to recent research advances in mathematical and computational modeling of biological tissues, ranging from cells to bones and soft tissues, as well as non-biological materials. It aims to present state-of the-art research in the emerging multidisciplinary field involving engineering sciences, medicine, health, and ergonomics. Specific topics of interests in this Special Issue include:
Cell/cardiovascular/joint/injury/orthopedic biomechanics; Computational models/constitutive formulations for biological tissues; Computer-assisted surgery and simulation; Computer-aided design and assessment of medical devices, protheses, and implants; Damage and rupture modeling for tissues; Mathematical modeling of growth and remodeling; Multimodal/multiscale modeling of biological tissues and engineered biomaterials.

Guest Editor

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Message from the Editor-in-Chief

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Editor-in-Chief

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