

## Special Issue

# Biomechanics in Musculoskeletal Systems: Recent Advances and Applications

### Message from the Guest Editors

Understanding the biomechanics of the human musculoskeletal system is essential for advancing clinical practices, improving rehabilitation strategies, and enhancing the design of medical devices. This Special Issue aims to collect articles covering a diverse range of topics, from experimental investigations to computational modeling and simulations addressing the biomechanical function of the healthy and pathologic musculoskeletal systems. Contributions in this Special Issue may also explore the integration of new technologies (e.g., wearable sensors and artificial intelligence) for capturing and analyzing functionality of the joints, muscles, tendons, and ligaments. We eagerly await the submission of scientific manuscripts from experts in the field including engineers, biologists, and clinicians who pursued innovative approaches to address complex biomechanical problems, leading to groundbreaking advancements in the understanding and treatment of musculoskeletal disorders.

---

### Guest Editors

Dr. Seyyed Hamed Hosseini Nasab

Institute for Biomechanics, ETH Zurich, 8092 Zurich, Switzerland

Dr. Renate List

KWS, Human Performance Lab, Schulthess Klinik, Zürich, Switzerland

---

### Deadline for manuscript submissions

closed (28 February 2025)



## Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/si/183857](https://mdpi.com/si/183857)

*Applied Sciences*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[appls@mdpi.com](mailto:appls@mdpi.com)

[mdpi.com/journal/](https://mdpi.com/journal/)

[appls](https://appls.mdpi.com)





# Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/journal/  
applsci](https://mdpi.com/journal/applsci)



## 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

Prof. Dr. Giulio Nicola Cerullo  
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,  
20133 Milano, Italy

---

### Author Benefits

#### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering )