

Special Issue

Advances in Sensing-Based Animal Biomechanics

Message from the Guest Editor

Sensors in animal biomechanics are used for clinical applications as well as for animal monitoring in all areas. In particular, inertial measurement units (IMU) are key elements in lameness evaluation, feedback systems, and motion analysis in animal biomechanics and can be combined with EMG systems (muscle activity) and ultrasound systems to detect muscle activity and tendon strains. This Special Issue aims to highlight advances sensing in animal biomechanics covering the development, testing, and modeling of biomechanical sensors on the component level as well as within biomechanical systems. Topics include but are not limited to:

- Accelerometers;
- Gyroscopes;
- Force sensors (strain gauge, piezo, etc.);
- Pressure sensors (capacitive, optical, piezo, strain gauge, etc.);
- Fibre optic sensors;
- EMG electrodes (surface, needle, array, capacitive);
- Ultrasound sensors;
- Ultra-wide band radar;
- Goniometers;
- Optical tracking systems;
- Nanomaterial-based sensors;
- Advanced sensor characterization techniques;
- Sensor error modeling and online calibration;
- Pattern recognition algorithm;
- Deep learning.

Guest Editor

Prof. Dr. Christian Peham

Department for Companion Animals and Horses, University of Veterinary Medicine, Veterinärplatz 1, 1210 Vienna, Austria

Deadline for manuscript submissions

closed (20 October 2024)



Biomechanics

an Open Access Journal
by MDPI

CiteScore 1.5
Tracked for Impact Factor



mdpi.com/si/144208

Biomechanics
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
biomechanics@mdpi.com

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





Biomechanics

an Open Access Journal
by MDPI

CiteScore 1.5
Tracked for Impact Factor



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



About the Journal

Message from the Editor-in-Chief

Biomechanics (ISSN 2673-7078) is an international, peer-reviewed, and open access journal devoted to the fast publication of the latest achievements of scientific research in the area of biomechanics. Both experimental and theoretical papers are published. We hope that the submission guidelines and submission template will assist you in your submission of your research to this journal, and that you will enjoy reading the articles in *Biomechanics*.

Editor-in-Chief

Prof. Dr. Tibor Hortobágyi

1. Research Professor, Department of Kinesiology, Hungarian University of Sports Science, 1123 Budapest, Hungary
2. Research Professor, Institute of Sport Sciences and Physical Education, Faculty of Sciences, University of Pécs, 7624 Pécs, Hungary
3. Professor Emeritus of Movement and Healthy Ageing, Department of Human Movement Sciences, University Medical Center Groningen, 9700 Groningen, The Netherlands

Author Benefits

Open Access:

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

High Visibility:

indexed within ESCI (Web of Science), Scopus, EBSCO, and other databases.

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 20.4 days after submission; acceptance to publication is undertaken in 7.2 days (median values for papers published in this journal in the first half of 2024).