

Asymmetric and Symmetric Study in Clinical Rehabilitation, Exercise Science, Clinical Biomechanics, and Biomedical Engineering: Technologies, Advances, and Applications

Guest Editors:

Message from the Guest Editors

Prof. Dr. Anna Mika

Institute of Clinical
Rehabilitation, University of
Physical Education in Krakow,
Krakow, Poland

anna.mika@awf.krakow.pl

Dr. Łukasz Oleksy

Physiotherapy and Sports Centre,
Rzeszow University of
Technology, Rzeszow, Poland
Orthopaedic and Rehabilitation
Department, Medical University
of Warsaw, Warsaw, Poland

loleksy@oleksy-fizjoterapia.pl

Deadline for manuscript
submissions:

30 April 2022

Dear Colleagues,

The asymmetry in musculoskeletal systems is widely considered a strong factor of tissue overload and increased risk of injury. Due to the tensegrity model, all asymmetrical tension transmitted throughout musculofascial structures may lead to microtrauma, even in distant parts of the body. The microinjuries of motor units may lead to a decrease in muscle strength and endurance which may be visible as increased fatigue level. However, it is crucial not only to recognize the existence of such asymmetries, but also to understand the underlying mechanisms which allow for successive treatment, rehabilitation, or sport training individualization. Therefore, this Special Issue is aimed at highlighting the explanations for the observed asymmetry in the musculoskeletal system, particularly emphasizing mechanisms of tissue overload and injury from a biomechanical, rehabilitation and sport perspective. Research papers that provide empirical evidence for new explanations of musculoskeletal system asymmetry, risk factors causing asymmetrical tension, tissue overload and injury, and treatment methods, as well as theoretical papers that introduce new explanations are encouraged.



Editor-in-Chief

Prof. Dr. Sergei D. Odintsov

ICREA, P. Lluis Companys 23,
08010 Barcelona and Institute of
Space Sciences (IEEC-CSIC), C.
Can Magrans s/n, 08193
Barcelona, Spain

Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

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), CAPlus / SciFinder, Inspec, and many other databases.

Journal Rank: JCR - Q2 (*Multidisciplinary Sciences*) / CiteScore - Q1 (*General Mathematics*)

Contact Us

Symmetry
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
Fax: +41 61 302 89 18
www.mdpi.com

mdpi.com/journal/symmetry
symmetry@mdpi.com
🐦 @Symmetry_MDPI