



## Symmetry and Asymmetry in Biomechanics and Human Physiology

Guest Editors:

**Dr. Mário André da Cunha  
Espada**

**Dr. Fernando Santos**

**Dr. Filipe Manuel Clemente**

**Dr. Mário Jorge Costa**

Deadline for manuscript  
submissions:

**closed (31 December 2022)**

### Message from the Guest Editors

Dear Colleagues,

Movement and locomotion have always been key activities in humans. Physical exercise and performance in sports are strongly linked to physiological variables, which are dependent on biomechanical aspects associated with fatigue and energy expenditure. The concepts of symmetry and asymmetry are often used to assess the normality of movement in sports or rehabilitation processes. The knowledge provided by scientific studies on this topic can be useful to optimize coaching and training programs and aid adequate long-term development of athletes, while improving quality of life, the reduction of risk in sport injuries and health care costs and promoting the conditions for performance enhancement in sports. This context gives us a wide range of perspectives from which to study the symmetry and asymmetry in biomechanics and human physiology. We encourage and invite researchers and practitioners to submit manuscripts related to the promotion of health, physical activity, regular exercise, injury prevention, and performance enhancement in sports. Submissions from all disciplines will be considered, and all manuscripts will be peer-reviewed by experts.





# symmetry



an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Sergei D. Odintsov

1. Institució Catalana de Recerca i Estudis Avançats (ICREA),  
Passeig Luis Companys, 23,  
08010 Barcelona, Spain  
2. Institute of Space Sciences  
(ICE-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, Astrophysics Data System, and other databases.

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

## Contact Us

---

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

Tel: +41 61 683 77 34  
www.mdpi.com

mdpi.com/journal/symmetry  
symmetry@mdpi.com  
X@Symmetry\_MDPI