

Special Issue

Advances in Biomechanics and Sport Sciences: Exploring Symmetry and Asymmetry in Human Movement

Message from the Guest Editors

Symmetry and asymmetry in human movement are important factors in understanding motor performance, injury risk, and training optimisation across a wide range of physical activities and sports. Movement symmetry is often linked to efficiency, balance, and coordination, while asymmetries—whether structural, functional, or habitual—can influence performance outcomes and predispose individuals to injury. Assessing asymmetries is complex. Not only is the boundary between symmetry and asymmetry controversial, but the interpretation of when asymmetry should be corrected and when it may be considered a natural state is also difficult. Recent advances in biomechanics, motion analysis, and wearable technology have provided new tools for quantifying movement patterns with high precision. This has opened new pathways for research into the mechanisms and consequences of symmetry and asymmetry. This Special Issue invites original research articles, reviews, and case studies that investigate the roles of symmetry and asymmetry in human movement, particularly in sports performance, training, rehabilitation, and educational settings...

Guest Editors

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About the Journal

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.

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