



symmetry



an Open Access Journal by MDPI

Symmetry-Based Biomedical Image Processing

Guest Editor:

Prof. Dr. Shu-Yen Wan

Department of Information
Management, Chang Gung
University, Taoyuan, Taiwan

Deadline for manuscript
submissions:

30 September 2024

Message from the Guest Editor

Dear Colleagues,

Symmetry relates to the harmony of proportions and is a pervasive property of nature. It is ubiquitous, essential, compact, and aesthophysiological in human anatomy and living organisms. Significant asymmetry of a structure in medical images can usually indicate the presence of pathology. Extensive studies and medical applications exist to fortify the concept of symmetry as a general feature of objects. For example, facial symmetry is an important metric to assess attractiveness and can serve as a tool to evaluate the effectiveness of plastic surgery. In assessing skeletal age, only one hand and wrist is usually needed as the skeletal maturation of human hands and wrists exhibits bilateral symmetry. The bilateral symmetry of bones suggests using intact/uninjured bones as a template to reconstruct the contralateral bone in orthopedics. Studies showing that the human pelvis exhibits strong bilateral symmetry across the sagittal plane have been applied for fracture reconstruction. In addition to subjective perception, quantitative measurements of symmetry are important to improve semi-automatic and/or automatic analysis of medical images...



mdpi.com/si/98081

Special Issue



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*); Q1 (*Physics and Astronomy*); Q1 (*Computer Science*)

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