

Special Issue

Symmetry and Asymmetry in Computer Vision Under Extreme Environments

Message from the Guest Editor

The Special Issue on "Symmetry and Asymmetry in Computer Vision under Extreme Environments" addresses the unique challenges and innovations of computer vision when applied to extreme conditions, such as underwater environments, extreme weather, and low-light situations. These conditions significantly impact visibility and image quality, necessitating advanced techniques in image processing and various computer vision tasks. This Special Issue aims to explore the roles of symmetry and asymmetry in overcoming these challenges. We welcome original research articles and reviews in this Special Issue. Research areas may include (but are not limited to) the following:

- **Imaging and Sensing Techniques:** Advanced optical, sonar, and hyperspectral methods to enhance visibility and clarity in extreme environments.
- **Image Processing and Enhancement:** Development of algorithms for improving image quality, color correction, and contrast enhancement to mitigate the effects of light absorption and scattering.
- **Object Detection and Classification.**
- **Vision Systems for Autonomous Vehicles...**

Guest Editor

Dr. Peng Liu

Computing Center, Ocean University of China, Qingdao 266100, China

Deadline for manuscript submissions

28 February 2026



Symmetry

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 5.3



mdpi.com/si/221081

Symmetry
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
symmetry@mdpi.com

[mdpi.com/journal/
symmetry](http://mdpi.com/journal/symmetry)





Symmetry

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 5.3



[mdpi.com/journal/
symmetry](http://mdpi.com/journal/symmetry)

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.

Editor-in-Chief

Prof. Dr. Sergei Odintsov

1. ICREA, 08010 Barcelona, Spain

2. Institute of Space Sciences (IEEC-CSIC), C. Can Magrans s/n, 08193
Barcelona, Spain

Author Benefits

Open Access:

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

High Visibility:

indexed within SCIE (Web of Science), Scopus, CAPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank:

JCR - Q2 (Multidisciplinary Sciences) / CiteScore - Q1
(General Mathematics)

