Special Issue

Artificial Intelligence, Adaptation and Symmetry/Asymmetry

Message from the Guest Editor

Since the Dartmouth Summer School in 1956, artificial intelligence has become one of the most active cross-discipline research areas, attracting mathematicians, physicists, logicians, biologists, and so on. In fact, the dream of humankind to explore the order of nature and the capability of man-made machines can even be traced back to thousands of years ago. Through this process, recognizing the intrinsic features or principles of real-world or artificial systems has been a key problem which is still far from being completely resolved. Adaptation and symmetry are two critical features for understanding the order and evolution of complex systems. As such, some interesting problems can be raised: How can AI work better with adaptation? Can AI understand symmetry or nonsymmetry? Is it possible to construct AI with a symmetric structure or block for certain real problems? What can be expected if we regard a human as an AI agent or vice versa? Does the relationship between AI and humans exhibit some degree of symmetry? Can a process of adaptation be designed or fused into AI for discovering order-like symmetry...

Guest Editor

Prof. Dr. Hongbin Ma

Key Laboratory of Intelligent Control and Decision of Complex Systems, Beijing Institute of Technology, Beijing 100081, China

Deadline for manuscript submissions

closed (15 March 2024)

Symmetry

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 5.3

mdpi.com/si/133624

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

mdpi.com/journal/symmetry

Symmetry

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 5.3

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)

MDPI