Symmetry and Asymmetry in Machine Learning

Guest Editors:

Dr. Qinwei Fan
School of Science, Xi 'an Polytechnic University, Xi'an 710048, China

Dr. Jie Yang
School of Mathematical Sciences, Dalian University of Technology, Dalian 116024, China

Prof. Dr. Dongpo Xu
School of Mathematics and Statistics, Northeast Normal University, Changchun 130024, China

Message from the Guest Editors

Dear Colleagues,

Machine learning mainly designs and analyzes algorithms that allow computers to learn autonomously. It is widely used in various fields, such as image recognition, speech recognition, natural language processing, recommendation systems, classification, prediction, etc. This Special Issue aims to provide a platform for researchers to share their latest advances in neural networks, and deep learning, and the correlation between machine learning and symmetry as well as their applications to solving real-world problems.

Topics of interest for this Special Issue include, but are not limited to, the following:

- Symmetry and asymmetry in new architectures and algorithms for machine learning;
- Faster and more robust methods for the learning of deep models;
- Advances in fuzzy neural networks, spiking neural networks, extreme learning machines and support vector machines;
- Machine learning applications in computer vision, speech recognition, natural language processing, and robotics;
- Neural network theory analysis;
- Transfer learning for deep learning systems...

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