Special Issue

Symmetry or Asymmetry in Machine Learning

Message from the Guest Editor

The past decades have witnessed the fast growth of machine learning, with the rapid development of various techniques. When applying machine learning models to different fields, researchers and practitioners should pay attention to domain experience or prior knowledge, which may bring surprising gains and more insights. In particular, the symmetry/asymmetry property generally could play important roles in various problems and tasks, which potentially would inspire new models in machine learning. This Special Issue mainly focus on novel machine learning models motivated by symmetry/asymmetry properties. The list of possible topics includes, but is not limited to, the following:

- Supervised learning;
- Unsupervised learning;
- Computer vision and natural language processing;
- Machine learning applications;
- Deep learning and neural networks;
- Pattern recognition;
- Statistical modeling and inference.

Guest Editor

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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.

Editor-in-Chief

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