Special Issue

Advancement of Mathematical Methods in Feature Representation Learning for Artificial Intelligence, Data Mining and Robotics, 3rd Edition

Message from the Guest Editors

The current Special Issue is devoted to the advancement of mathematical methods in artificial intelligence, data mining, and robotics. Big data have boosted the rapid development of new techniques in artificial intelligence (AI), data mining, and robotics over the past decade. However, this development has been subject to the mathematical foundation under feature representation learning in the developed models, especially the ones based on deep neural networks. Due to this, the efficiency, reliability, and security of AI models are likely to be influenced. The topic of this Special Issue covers a wide range of algorithms, methods, and applications of explainable representation learning from a mathematical perspective. Topics of interest include, but are not limited to, the following:

- Visual recognition methods and algorithms;
- Explainable deep learning and its applications;
- Theory of representation learning;
- Data mining approaches;
- Model compression;
- Deep dictionary learning;
- Knowledge discovery systems;
- Human-based computer vision.

Guest Editors

Prof. Dr. Jianping Gou

Prof. Dr. Weihua Ou

Dr. Lan Du

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

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Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

Editor-in-Chief

Prof. Dr. Francisco Chiclana
School of Computer Science and Informatics, De Montfort University, The Gateway, Leicester LE1 9BH, UK

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