



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

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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 in 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 fact, the efficiency, reliability and security of the 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 the mathematical perspective. Topics of interest include but are not limited to:

- 1) Visual recognition methods and algorithms;
- 2) Explainable deep learning and its applications;
- 3) Theory of representation learning;
- 4) Data mining approaches;
- 5) Model compression
- 6) Deep dictionary learning
- 7) Knowledge discovery systems;
- 8) Human-based computer vision.





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Message from the Editor-in-Chief

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