



Advances in Machine Learning and Mathematical Modeling for Optimization Problems

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Message from the Guest Editors

Machine learning and deep learning have made tremendous progress over the last decade and have become the de facto standard across a wide range of image, video, text, and sound processing domains, from object recognition to image generation. More recently, deep learning and deep reinforcement learning have begun to develop end-to-end training to solve more complex and combinatorial optimization problems. These methods also sometimes include classic search and optimization algorithms to machine learning, such as Monte Carlo Tree Search in AlphaGO.

This Special Issue focuses on recent advances in machine learning and mathematical modeling for optimization problems. Topics include but are not limited to:

1. Machine learning for optimization problems
2. Statistical learning
3. End-to-end machine learning
4. Graph neural networks
5. Combining classic optimization algorithms and machine learning
6. Mathematical models of problems for machine learning
7. Optimization method for machine learning
8. Evolutionary computation and optimization problems
9. Applications such as scheduling problems, smart cities, etc.



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Message from the Editor-in-Chief

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