



Advanced Optimization Algorithms in the Era of Machine Learning

Guest Editor:

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Message from the Guest Editor

We are witnessing the rapid advance of Machine Learning and its application in various domains. We would like to provide the opportunity to explore related areas that focus on the development of alternative optimization algorithms that provide a different perspective on machine learning.

Deadline for manuscript
submissions:

31 December 2024

In the scope of the Special Issue are methods for lower bound approximations and stochastic relaxations of discrete problems; adjoint methods of optimization problems; solver free learning of optimization problems; optimization free gradient estimation methods; continuous relaxations of discrete operations and algorithms (e.g., sorting, ranking, argmax, shortest-path, if-else constructs, loops, top-k, logic operators, indexing, etc.); Smoothing or variational for the optimization of discrete structures (e.g., graphs, tree, sequences); Semi-definitive optimization relaxation of discrete or logical optimization (e.g., SAT solver, MaxSAT), Optimization and integration of numerical simulators (e.g., field equations, fluid dynamics, differentiable molecular dynamics, differentiable particle simulators, differentiable protein binding, differentiable protein-folding).





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Message from the Editor-in-Chief

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