Machine Learning in Model Predictive Control and Optimal Control

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Deadline for manuscript submissions:
closed (20 November 2023)

Message from the Guest Editors

This Special Issue intends to provide a platform for researchers and practitioners to share state-of-the-art algorithms and methods for both theory and application works to address some of the aforementioned fundamental challenges associated with using machine learning in MPC and optimal control.

Potential topics include, but are not limited to:

- Novel ML methods for model development and theoretical analysis on the generalization performance of ML models;
- Theoretical methodologies and applications of predictive control and optimal control using machine learning techniques;
- ML in parameter and state estimation, fault detection, soft sensing, and their applications in MPC and optimal control;
- Computational development of ML-based MPC and optimal control systems to address practical challenges such as computational efficiency, feasibility for large-scale systems, etc.

Special Issue

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Message from the Editor-in-Chief

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