# Special Issue

## Bridging the Control Theory, Optimization, and Learning: Application in Robotics

### Message from the Guest Editor

Control practitioners are trying to understand how optimization and reinforcement learning enable the application of control theory to achieve better control performance in the presence of uncertainty and high dimensionality. Reinforcement learning is trying to find a path to improve the control field. In light of this context, this Special Issue focuses on building a connection between control theory, optimization, and reinforcement learning, before finally applying it to robotics. Papers in the fields of Lyapunov function and value function, stability and optimality, and embedding optimization into control and its application in robotics are particularly welcome, though papers in other fields will also be accepted.

### Guest Editor

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### Deadline for manuscript submissions

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# About the Journal

## Message from the Editor-in-Chief

*Machines* is an international, peer reviewed journal on machinery and engineering. It publishes research articles, reviews and communications.
Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the length of the papers. Full experimental and/or methodical details must be provided.
There are, in addition, unique features of this journal: Manuscripts regarding research proposals and research ideas will be particularly welcomed; Electronic files or software regarding the full details of the calculation and experimental procedure - if unable to be published in a normal way can be deposited as supplementary material.

## Editor-in-Chief

Prof. Dr. Antonio J. Marques Cardoso
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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.9 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).