



## Optimal Control and *Symmetry*

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### Message from the Guest Editor

Dear Colleagues,

The features of *symmetry* make it possible to analyze and control biosystems and systems driven by artificial intelligence, as well as develop plausible physical models of spiking neural networks with self-organization.

This Special Issue on “Optimal Control and *Symmetry*” deals with advanced applications illustrating these concepts and delivers an important contribution for the achievement of the next generation of intelligent hybrid biostructures. Different modeling and simulation tools can deliver an alternative to funding the theoretical approach of algorithms from computational group theory used to efficiently search for groups such as hybrid biobots.

Topics of interest include but are not limited to the following:

- Theory of symmetry for constrained linear systems;
- Modeling predictive control problems;
- Modeling predictive control algorithms with reduced complexity;
- Generators for the symmetry group into a graph automorphism;
- Modeling predictive control designs for hybrid biostructures;
- Modeling predictive controllers for balancing hardware designs of hybrid structures.





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## Editor-in-Chief

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## Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

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