

NUMTA 2023 Special Session on Recent Advances in Numerical Computations for Control Theory

Special Session Organizers:

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Session description

This special session deals with the **control problems of complex nonlinear systems**. The primary focus are recent advances **in various numerical techniques for the computational solution of the control problems** which include both traditional methods like maximum principal, dynamic programming, Lagrange multiplier method, and modern methods of evolutionary algorithms, artificial neural networks, symbolic regression methods, adaptive dynamic programming, and so on with the application to control problems.

The topics of interest include, but are not limited to:

- optimal and near optimal control
- control system synthesis
- maximum principal
- dynamic programming
- machine learning
- evolutionary algorithms
- neural networks
- symbolic regression