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Analysis and Control of Nonlinear Dynamical System

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Deadline for manuscript submissions: closed (31 December 2023)

Message from the Guest Editor

Dear Colleagues,

With the ever-increasing control performance requirements for nonlinear systems, the problem of new algorithms synthesis arises. The algorithm should satisfy accuracy, power or fuel consumption, time response and other constraints. In addition, the control system usually operates when there is a limit for computational capabilities while the information about the system itself and its state vector is inaccurate.

Another problem is the nonlinear system analysis. If the system is linear, there is a set of analytical and semianalytical methods that can usually prove the control performance. In the case of a nonlinear system, usually only pure numerical methods of analysis are applied, which are not always effective. Therefore, the development of new methods and the adaptation of the existing ones is essential.

This Special Issue aims to demonstrate the modern control theory applied to real nonlinear systems and share examples of analytical and numerical analysis.



mdpi.com/si/159199







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Message from the Editor-in-Chief

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