Special Issue

Analysis and Control of Nonlinear Dynamical System

Message from the Guest Editor

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 semi-analytical 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.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

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