

Special Issue

Dynamics and Control Theory with Applications

Message from the Guest Editors

In reality, especially in science and engineering, there are countless dynamic objects that are described by differential or difference equations and require automatic control, such as unstable dynamic objects. Such objects can be controlled either with the help of dynamic models (model-based design) or without them. In the first case, it is necessary to build mathematical models using the laws of physics, chemistry, biology, etc. (the first principal equations), or identification. Then, based on these models, either the known automatic control theory is used to control them, or a new theory is developed to create methods and systems mainly with feedback to control the models. The purpose of this is to apply the theory in practice. In the second case, control systems are tuned to an object without knowledge of its model by automatically tuning the controller, e.g., using reinforcement learning.

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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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