Special Issue

Switched Systems: Modeling, Analysis, and Applications

Message from the Guest Editors

Switched control systems have garnered significant attention due to their wide range of practical applications across fields such as engineering, natural sciences, and social sciences. These systems are crucial for modeling complex behaviors, as many natural, social, and engineered systems cannot be represented by a single model. They often switch between models depending on environmental conditions. For example, biological systems adapt to changes for survival; social systems show similar switching behaviors; and in engineering, switching mechanisms improve the performance of systems such as electronics, power grids, and traffic control. Theoretical studies of switched systems present notable academic challenges due to their complex and varied dynamics. We invite you to contribute to this issue by submitting your latest research and insights on switched control systems. We welcome research on topics such as linear and nonlinear switching systems, dwell time, stability analysis, observers, fault detection, and control design. Contributions on other related topics are also encouraged.

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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