Special Issue

Advances and Applications for Data-Driven/Model-Free Control

Message from the Guest Editors

Model-based control techniques have been developed in order to cope with the control problems with assumption that the models of the controlled systems are known. However, modelling a system is not easy, and is sometimes impossible. Data-driven control (DDC) or Modelfree control (MFAC) approaches focus on designing controllers merely using the input/output data of the controlled plant. In the past several years, the DDC/MFAC algorithms were widely studied and numerous interesting results have been obtained. However, the existing results related to the DDC/MFAC design focus on the uniformly ultimately boundedness, convergence analysis and high-order estimation. The purpose of this Special Issue is to advance the controller design and stability analysis of DDC/MFAC and further promote the research activities in analysis and synthesis for discrete-time systems.

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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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