Special Issue

Systems Modeling, Analysis and Optimization

Message from the Guest Editors

Large-scale complex systems widely arise in real applications such as queueing systems, electric power grids, air and road traffic control systems, communication networks, manufacturing plants, supply chains, social networks, etc. With the increasing demand from stakeholders and the rapid development of information technologies and big data in recent years, there has been significant advancement in both the scale and complexity of the systems practitioners have to deal with. This creates challenges for describing and studying these systems, and in the meantime brings opportunities for the development of new modeling, analysis, control, and optimization techniques for them. The aim of this Special Issue is to publish new theories, methods, algorithms, and applications in systems modeling, analysis, and optimization. The potential topics of interest are broad, and include but are not limited to simulation modeling, discrete event dynamic systems, Markov decision processes, reinforcement learning, optimization methods, social networks, metaheuristic algorithms, computation of equilibria in game theory, etc.

Guest Editors

Prof. Dr. Chuangyin Dang

Department of Systems Engineering and Engineering Management, City University of Hong Kong, Tat Chee Avenue, Kowloon, Hong Kong 999077, China

Dr. Siyang Gao

Department of Systems Engineering and Engineering Management, City University of Hong Kong, Kowloon, Hong Kong

Deadline for manuscript submissions

closed (30 December 2022)

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.

Editor-in-Chief

Prof. Dr. Francisco Chiclana
School of Computer Science and Informatics, De Montfort University, The Gateway, Leicester LE1 9BH, UK

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