Special Issue

New Advances in Algorithms and Optimization for Dynamical Networks

Message from the Guest Editor

Complex networks are prevalent in various dimensions of society, including information technology networks, computer networks, biosphere networks, learning and cognitive networks, social relationship networks, economic and financial networks, supply chains, and critical infrastructure, among others. These networks are often associated with complex systems that (i) are subject to disruptive events, either natural or man-made, that affect their ability to perform their functions and (ii) are constantly changing and evolving, either in response to disruptive events or to adapt to new environments (e.g., varying demands, changing costs, new technologies). For this Special Issue, we invite high-quality research papers based on applied mathematics, network science, operations research, graph theory, and related fields; novel techniques and approaches to modeling dynamical networks that improve our understanding of how and why networks change over time (including but not limited to changes in their topology or their flows); and how to quantify, control, and enhance (or reduce, depending on the application) their performance and overall resilience.

Guest Editor

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Deadline for manuscript submissions

closed (31 October 2024)

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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