Special Issue

Hybrid Metaheuristic Algorithms for Portfolio Optimization and Its Applications

Message from the Guest Editors

The field of hybrid metaheuristics has flourished over the years due to the inherent vision of hybridization to combine different metaheuristics such that each of the combinations supplements the other in order to achieve the desired performance. Typical examples include fuzzy-evolutionary, neuro-evolutionary, neuro-fuzzy evolutionary, and rough-evolutionary approaches, to name a few. Quantum Metaheuristics enhance the realtime performance of the hybrid metaheuristics by resorting to the features of quantum mechanics. Recently, portfolio optimization has attracted attention for helping investors to balance the risks and returns. An optimized portfolio enables proactive management of application lifecycles, changes, and standards. Apart from financial transactions, it can be extended to other areas including the healthcare sector, and economic load dispatch, to name a few. Since portfolio optimization manifests real-world constraints, the problem becomes difficult to address via traditional methods. In contrast, several hybrid metaheuristic approaches have been developed of late, to tackle portfolio optimization while avoiding the limitations of traditional methods.

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Deadline for manuscript submissions

28 February 2025



Mathematics

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Impact Factor 2.3 CiteScore 4.0



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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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