

Special Issue

Fusion of Evolutionary Computation and Multidisciplinary Innovations for Emerging Optimization Challenges

Message from the Guest Editors

Over decades of development, evolutionary computation (EC) has established itself as a robust population-based optimization paradigm that operates independently of specific problem characteristics. It has demonstrated exceptional performance in tackling challenging problems, such as those in high-dimensional, non-linear, or multi-modal spaces, often outperforming classical mathematical optimization algorithms in terms of generality and practicality. Yet, optimization is an inherently dynamic field where advancements in problem complexity drive corresponding innovations in algorithmic design. This Special Issue seeks to explore how techniques from other disciplines can be leveraged to overcome the current challenges in EC while extending its optimization principles to new areas. We welcome contributions that focus on integrating EC with other fields, whether they involve foundational research or practical applications. By fostering such interdisciplinary collaborations, we aim to push the boundaries of both EC and related disciplines, inspiring innovation and vitality across these domains.

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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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