Nature-Inspired Algorithms for Optimization

Guest Editor:

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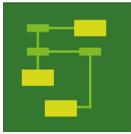
Deadline for manuscript submissions:
closed (30 June 2023)

Message from the Guest Editor

Original contributions in the adaptive properties of nature-inspired algorithms are welcome. The topics of interest include, but are not limited to:

- Adapting the parameters of various algorithms;
- New self-adaptive operators;
- Reducing the computational complexity of the algorithm by population adaptations;
- Hybrid algorithms;
- Multi-algorithm strategies;
- Comparison of these algorithms on standard/new benchmarks and highlighting the significance of using the new adaptive strategies;
- Comparative surveys with new ideas on adaptations with dos and don'ts: i.e., best and worst practices, for performance evaluations, balancing the exploration and exploitation, and algorithm comparison;
- Evaluations for real-world applications such as robustness, reliability, and implementation;
- Statistical testing and validation of the proposed strategies;
- Theoretical analysis with respect to the self-adaptive operators;
- Application of new algorithms to real-world problems such as antenna array design, wireless sensor networks, time series forecasting, and others.

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Special Issue

Editor-in-Chief

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Message from the Editor-in-Chief

Algorithms are the very core of Computer Science. The whole area has been considered from quite different perspectives, having led to the development of many sub-communities: Complexity theory (limitations), approximation or parameterized algorithms (types of problems), geometric algorithms (subject area), metaheuristics, algorithm engineering, medical imaging (applications), indicates the range of perspectives. Our journal welcomes submissions written from any of these perspectives, so that it may become a forum for exchange of ideas between the corresponding scientific subcommunities.

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