Algorithms for Natural Computing Models

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Deadline for manuscript submissions:
closed (15 December 2023)

Message from the Guest Editors

Dear Colleagues,

Natural computing is a large area of research that involved both theoretical investigations and practical applications. Nature has always been a source of inspiration for the development of computational models, such as cellular automata, evolutionary computation, neural networks, and membrane computing to name.

In this Special Issue, we want to collect the most recent works on natural computing models used either as a model for computation or as a tool for optimization. We invite contributions that explore the theoretical and practical aspects of natural computing. This includes (but is not limited to) research in the following areas:

- The computational power of natural computing models and their ability to solve intractable problems efficiently;
- Theoretical aspects and definition of new or improved evolutionary or swarm intelligence techniques;
- Application of natural computing in the modeling and simulation of complex systems;
- Practical applications of natural computing methods in the areas of health, earth sciences, biology, cryptography, security, social sciences, and economics.

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Guest Editors

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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