High Performance Computing for Life and Network Sciences: Mathematical Models, Algorithms, and Tools

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Deadline for manuscript
submissions:
closed (15 December 2021)

Message from the Guest Editors

The Special Issue is also connected to the EuroPar worshop: HPC4LifeS2021, and extended versions of the high quality papers selected by program committee and presented on the conference will be recommended for publication.

The HPC4LifeS Workshop is oriented to explore the key role of HPC algorithms, methodologies and tools for solving problems related to different branches of Life Sciences (Biology, Biomedicine, Bioengineering, Network Science, Ecology, etc.).

Topics of interest include, but are not limited to, the following:

- Parallel Computing for Biological Systems
- Parallel Simulations
- Parallel and Distributed Genetic Algorithms
- Parallel and Distributed Algorithms for Network Analysis
- Parallel and Distributed Algorithms for Network Embedding
- Parallel Data Mining Approaches to Life Sciences
- Parallel and Distributed Computing in genomic research
- Parallel and Distributed architecture for Bioengineering
- Cloud Computing for Bioengineering
- Machine Learning techniques for predictive algorithms
- Metabolic and regulatory networks

Special Issue

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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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