



High-Speed Computing and Parallel Algorithms

Guest Editor:

Dr. Ivan Lirkov

Institute of Information and
Communication Technologies,
Bulgarian Academy of Sciences,
1113 Sofia, Bulgaria

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Message from the Guest Editor

Parallel computing is a type of computation in which many calculations or processes are carried out simultaneously. Large problems can often be divided into smaller ones, which can then be solved at the same time. Parallelism, the capability of a computer to execute operations concurrently, has been a constant throughout the history of computing. It impacts hardware, software, theory, and applications. Supercomputers owe their performance advantage to parallelism. Today, physical limitations have forced the adoption of parallelism as the preeminent strategy of computer manufacturers for performance gains of all classes of machines, from embedded and mobile systems to the most powerful servers. Parallelism is crucial for many applications in the sciences and engineering.

The focus will be on models, algorithms, and software tools that facilitate efficient and convenient utilization of modern parallel and distributed computing architectures, as well as on large-scale applications.





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Prof. Dr. Francisco Chiclana

School of Computer Science and
Informatics, De Montfort
University, The Gateway,
Leicester LE1 9BH, UK

Message from the Editor-in-Chief

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