

Special Issue

High-Speed Computing and Parallel Algorithms

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.

Guest Editor

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Deadline for manuscript submissions

closed (31 July 2024)



Mathematics

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Impact Factor 2.2
CiteScore 4.6



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About the Journal

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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