



## Current Trends in Computer Architecture and High Performance Computing (HPC) with Their Mathematical Foundations

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Deadline for manuscript  
submissions:

**closed (31 January 2022)**

### Message from the Guest Editors

The performance of computing devices has improved tremendously over the last decade. The design of computer architectures has adapted to work around the physical limitations hindering the traditional scaling of production processes, looking for new designs to take advantage of the ever growing transistor count while working around the power delivery and dissipation limitations imposed by the so-called “power wall”.

We invite researchers to submit papers related to modern architectures, algorithms, and code analysis and synthesis techniques, highlighting the mathematical concepts and applications that constitute the fundamental pillars of modern computer engineering. These mathematical concepts include, but are not limited to, combinatorics, graph theory, probability and statistics, operations research, linear and computational algebra, geometry, numerical analysis, or optimization.





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## 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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