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

Guest Editors:

Prof. Dr. Gabriel Rodríguez
CITIC Research Center,
Universidade da Coruña, 15001 A
Coruña, Spain

Prof. Dr. Juan Touriño
CITIC Research Center,
Universidade da Coruña, A
Coruña, Spain

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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.

Special Issue

Editor-in-Chief

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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