



Advances in High-Performance Computing Research and Applications

Guest Editors:

Prof. Dr. Nasro Min-Allah

SAUDI ARAMCO Cybersecurity
Chair, Department of Computer
Science, Imam Abdulrahman Bin
Faisal University, Dammam,
Saudi Arabia

Dr. Ubaid Abbasi

Department of Computer
Science, Grande Prairie Regional
College, Grand Prairie, AB T8V
4C4, Canada

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Message from the Guest Editors

The multicore era began in 2004. With multicore systems, the personal computers of today can offer the power of super computers of 1990s and thus provide the opportunity to perform extensive computations. Advancement in applications high performance computing (HPC) has a significant impact on data analysis, energy research, oil and gas industry, health sectors, weather forecasting, decoding the human genome, deep learning, self-driving vehicles, drug discovery and more. Today, the computing landscape is dominated by multicore architectures, and HPC has evolved tremendously in its ability to offer solutions to complex problems.

In this Special Issue, we invite original and unpublished submissions discussing the applications of HPC and related disciplines. This includes developing new models, image processing, oil exploration, control systems, applications of HPC in the health sector, cyber security, and adapting available tools to efficiently run on computer core systems.





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Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica,
Politecnico di Milano, Piazza L.
da Vinci 32, 20133 Milano, Italy

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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Applied Sciences Editorial Office
MDPI, Grosspeteranlage 5
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