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Resource Management for Emerging Computing Systems

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Message from the Guest Editors

On the software side of emerging computing systems, as various types of AI (artificial intelligence) and ML (machine learning) techniques are incorporated into the design of software, the resource usage behavior of processors, memory, and storage is different from that of traditional software. In particular, workloads such as autonomous driving and smart factories require large memory footprints and long computation processes, and at the same time, there are strict time constraints for real-time systems. However, the locality of data access is not strong, degrading the effectiveness of traditional resource management techniques such as caching.

The potential topics of this Special Issue include, but are not limited to, resource management that reflects the behavior of emerging workloads under the new hardware characteristics of emerging computing systems, including the following keywords:

Keywords: resource management; dynamic voltage/frequency scaling; task offloading; storage management; memory management; cloud resource management; real-time embedded systems; caching; scheduling; energy-saving technique





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Editor-in-Chief

Message from the Editor-in-Chief

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