



Energy Aware Scientific Computing on Low Power and Heterogeneous Architectures

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Message from the Guest Editors

Energy consumption is becoming one of the most relevant issue for computing platforms running scientific applications and workloads. The use of energy-efficient processors, ranging from many-core architectures, like GP-GPU and Xeon-Phi, to Systems-on-Chip (SoCs) is required to obtain a high performance-per-watt ratio. However, on such systems, careful programming and optimization are needed to reach a high level of computing performances. The driving forces of high computational power demands, power consumption limitations and cost effectiveness are, in fact, leading to a convergence of the scientific computing and mobile/embedded sectors, historically very isolated and confined to specific markets. This Special Issue provides a selection of papers concerning energy aware computing (and storage) on high-end heterogeneous systems, as well as on off-the-shelf low-power Systems-on-Chip, originally designed for the embedded and mobile markets.





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Message from the Editor-in-Chief

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