Special Issue

Program Analysis and Optimizing Compilers for High-Performance Computing

Message from the Guest Editor

The recent technical trend toward extreme heterogeneity in processors, accelerators, memory hierarchies, on-chip interconnect networks, storage, etc., makes current and future computing systems more complex and diverse. This technical trend exposes significant challenges in programming and optimizing applications onto heterogeneous systems. The purpose of this Special Issue is to bring together application developers, compilers and other tool developers, and researchers working on various program analysis and performance optimization techniques for an exchange of experiences and new approaches to achieve performance portability in the era of extremely heterogeneous computing. The topics of interest include but are not limited to:

- Program analysis tools and methodologies to understand program behavior and resource requirements;
- Efficient profiling and instrumentation techniques to characterize applications and target systems;
- Code generation, translation, transformation, and optimization techniques to achieve performance portability;
- Optimizing compiler design, practice, and experience;
- Methodologies for performance engineering

Guest Editor

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Deadline for manuscript submissions

closed (31 December 2021)

Electronics

an Open Access Journal by MDPI

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CiteScore 5.3

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Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

Editor-in-Chief

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