Special Issue

Advancements in Compiler Optimizations

Message from the Guest Editor

This Special Issue aims to present the latest findings pertaining to compiler optimizations, optimization frameworks, as well as innovative methods and tools being developed to tackle the existing problems. The topics of interest include, but are not limited to, the following:

- Code generation, translation, transformation, and optimization for performance, energy consumption, code size, portability, security, or reliability;
- Hardware-dependent optimizations for heterogenous hardware architectures or specialized co-processors;
- Machine learning compilers and optimizers;
- Profile-guided, feedback-directed, and machine learning-based optimization;
- Optimizing scientific applications on parallel hardware architectures;
- Compiler optimizations for graphics processor units (GPUs) or other programmable accelerators;
- Compiler techniques or loop transformations for optimizing memory hierarchy;
- Programming environments for GPU-based computing;
- Optimization and code generation for emerging programming models and platforms;
- Compiler support for vectorization, thread extraction, task scheduling, memory management, data distribution and synchronization.

Guest Editor

Dr. Vasilios Kelefouras
Department of Computing, University of Plymouth, Plymouth PL4 8AA, UK

Deadline for manuscript submissions

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Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applsci@mdpi.com

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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.

Editor-in-Chief

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

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