2016 IEEE/ACM International Symposium on Code Generation and Optimization

(Co-located with HPCA, PPoPP, CC, and EuroLLVM)

Barcelona, Spain

March 12-18, 2016

http://cgo.org/cgo2016/

The International Symposium on Code Generation and Optimization (CGO) provides a premier venue to bring together researchers and practitioners working at the interface of hardware and software on a wide range of optimization and code generation techniques and related issues. The conference spans the spectrum from purely static to fully dynamic approaches, and from pure software-based methods to specific architectural features and support for code generation and optimization.

Original contributions are solicited on, but not limited to, the following topics:

Code Generation, Translation, Transformation, and Optimization

- For performance, energy, virtualization, portability, security, or reliability concerns, and architectural support
- Efficient execution of dynamically typed and higher-level languages
- Optimization and code generation for emerging programming models, platforms, domain-specific languages
- Dynamic/static, profile-guided, feedback-directed, and machine learning based optimization

Static, Dynamic, and Hybrid Analysis

- For performance, energy, memory locality, throughput or latency, security, reliability, or functional debugging
- Program characterization methods
- Efficient profiling and instrumentation techniques; architectural support
- Novel and efficient tools

Compiler design, practice and experience

- Compiler abstraction and intermediate representations
- Vertical integration of language features, representations, optimizations, and runtime support for parallelism
- Solutions that involve cross-layer (HW/OS/VM/SW) design and integration
- Deployed dynamic/static compiler and runtime systems for general purpose, embedded system and Cloud/HPC platforms

Parallelism, heterogeneity, and reconfigurable architectures

- Optimizations for heterogeneous or specialized targets, GPUs, SoCs, CGRA
- Compiler-support for vectorization, thread extraction, task scheduling, speculation, transaction, memory management, data distribution and synchronization

Authors should carefully consider the difference in focus with the co-located conferences when deciding where to submit a paper. CGO will make the proceedings *freely available* via the ACM DL platform during the period from two weeks before to two weeks after the conference. This option will facilitate easy access to the proceedings by conference attendees, and it will also enable the community at large to experience the excitement of learning about the latest developments being presented in the period surrounding the event itself.

Authors of accepted papers will be invited to formally submit their supporting materials to the Artifact Evaluation process. The Artifact Evaluation process is run by a separate committee whose task is to assess how the artifacts support the work described in the papers. This submission is voluntary and will not influence the final decision regarding the papers. Papers that go through the Artifact Evaluation process successfully will receive a seal of approval printed on the papers themselves. Additional information is available on the CGO AEC web page. Authors of accepted papers are encouraged to make these materials publicly available upon publication of the proceedings, by including them as "source materials" in the ACM Digital Library.

Important Dates

1.	Abstract Submission:	Sept 12, 11:59PM, AoE (Anywhere on Earth)
2.	Paper Submission:	September 18, 11:59PM, AoE
3.	Author Response Period:	October 28-30
4.	Notification to Authors:	November 10 (before PLDI deadline)
5.	Artifact Submission:	November 20, 11:59PM, AoE
6.	Artifact Technical Clarification:	December 14-20
7.	Artifact Decision:	December 22
8.	Camera-Ready Submission:	January 13, 2016, 11:59PM, AoE