Association for Computing Machinery

CALL FOR PAPERS

2014 ACM/SIGDA International Symposium on Field-Programmable Gate Arrays (FPGA 2014)

February 26 – 28, 2014, Monterey, CA

http://www.eecg.utoronto.ca/FPGA2014

General Chair
Vaughn Betz
University of Toronto
vaughn@eecg.utoronto.ca

Program Chair
George A.
Constantinides
Imperial College London
g.constantinides@ic.ac.uk

Finance Chair
Brad Hutchings
BYU
brad_hutchings@byu.edu

Publicity Chair
Jason H. Anderson
University of Toronto
janders@eecg.toronto.edu

Important Dates

Submission Deadline:
September ~~20~~ 27, 2013
11:59 PM anywhere on Earth

Author Notification:
End November, 2013

The FPGA Symposium

The ACM/SIGDA International Symposium on Field-Programmable Gate Arrays is the premier conference for presentation of advances in all areas related to FPGA technology. For FPGA 2014, we are soliciting original submissions describing novel research and developments in the following (and related) areas of interest:

- FPGA Architecture: Novel logic block architectures, combination of FPGA fabric and system blocks (DSP, processors, memories, etc.), design of routing fabric, I/O interfaces, new commercial architectures and architectural features.
- FPGA Circuit Design: Novel FPGA circuits and circuit-level techniques, impact of process and design technologies, methods for analyzing and improving issues with soft-errors, leakage, static and dynamic power, clocking, power grid, yield, manufacturability, reliability, test; studies on future device technologies (e.g. nano-scale, 3D gate) for FPGAs.
- CAD for FPGAs: Placement, routing, re-timing, logic optimization, technology mapping, system-level partitioning, logic generators, testing and verification, CAD for FPGA-based accelerators, CAD for incremental FPGA design and on-line design mapping and optimization, CAD for modeling, analysis and optimization of timing and power.

- High-Level Abstractions and Tools for FPGAs: General-purpose and domain-specific models, languages, tools, and techniques to facilitate the design, development, debugging, verification, and deployment of large-scale and high-performance FPGA-based applications and systems, e.g. high level synthesis, DSP, compute acceleration, networking or embedded system tools and methodologies.
- FPGA-Based and FPGA-like computing engines: Compiled accelerators, reconfigurable computing, adaptive computing devices, systems and software, rapid-prototyping.
- Applications and Design Studies: Implementation of novel designs on FPGAs to achieve high performance, low power, or high reliability, making use of the unique flexibility provided by FPGA architectures. Application-domain studies to analyze or improve FPGA architectures and implementations for networking, DSP, embedded, audio/video, automotive, imaging and other relevant areas. Optimization of FPGA-based cores (e.g. arithmetic, DSP, security, embedded processors, memory interfaces, or other functions).
- Panel Outlines: Topic proposals for the traditional Evening Panel Session at FPGA.

Submission

Authors are invited to submit an English language PDF of their paper by September 20 27, 2013 11:59 PM anywhere on Earth. Submitted papers will be considered for acceptance as a full paper (10 pages maximum), as a short paper (4 pages), or as a poster.

The FPGA Symposium uses a double-blind reviewing system. Manuscripts must not identify authors or their affiliations. Self-references can either (1) be shown as "Removed for blind review" or (2) be referenced in the 3rd person, in the same way you would reference work by another group. Papers that identify authors will not be considered. Exceptions may be made for papers presenting new FPGA-related community infrastructure if the ability of reviewers to access that infrastructure is key to evaluating the paper. Please contact the Program Chair before submitting if you feel that it is not possible to avoid identifying the paper authors.

Papers should be submitted on-line via the conference website.

All papers should use the ACM formatting templates available at:
http://www.acm.org/sigs/pubs/proceed/template.html

Notification of acceptance will be sent by late November. The authors of accepted papers will be required to submit the final camera-ready copy by mid December. A proceedings of the accepted papers will be published by ACM and included in the Annual ACM/SIGDA CD-ROM Compendium publication.