

Call for Papers - INTERACT-14: Workshop on Interaction between Compilers and Computer Architectures

(<http://www.engr.pitt.edu/electrical/faculty-staff/akjones/INTERACT/>)

Held in conjunction with ASPLOS 2010

March 13, Sheraton Station Square, Pittsburgh, PA, USA

Scope:

Effective compilers allow more efficient execution of applications on a given computer architecture. Conversely, well-conceived architectural features can support more effective compiler optimization techniques. Good interaction between compilers and computer architectures is key to successful design of highly efficient and effective computer systems. This workshop is to promote new ideas and present recent developments in compiler techniques and computer architectures whose synergy enhances both *capabilities* and *efficiency*. Papers are solicited on any aspect of *interaction* between compilers and architectures in the design of microprocessors, multiprocessors, embedded processing systems, and parallel processing systems.

Potential topics include but are not limited to:

• Processor reliability enhancement	• Improved timing analysis and predictability
• Secure, dependable computing	• Managed and unmanaged run-time support
• Dynamic compilation and optimization	• Task synchronization and scheduling
• System virtualization	• Efficient I/O support
• Parallelism enhancement and exploitation	• Memory, cache, and register management
• Multi-core software and compilation	• Code optimization and generation
• Low power architecture and software	• Debugging, verification, and validation

INTERACT-14, previously associated with HPCA for more than a decade, is collocating for the first time with ASPLOS in 2010. The program will feature a keynote speaker and technical paper sessions comprising approximately ten papers.

Schedule and Submission Procedure:

- Paper submissions due: January 7, 2010
- Acceptance notification: January 23, 2010
- Final papers due: February 13, 2010

The program committee invites authors to submit up to *5000 words, in ACM conference format up to 8 pages* of manuscript, describing original, unpublished recent results related to the workshop theme. Submission must be in pdf format and emailed to xyuan@cs.fsu.edu. The submission should include the contact

author's email address on the front page. Accepted papers will be archived in the ACM digital library.

Committees:

Steering Committee:

Bruce Childers, University of Pittsburgh
Tom Conte, Georgia Institute of Technology

General Chair: Alex K. Jones, University of Pittsburgh
Program Chair: Xin Yuan, Florida State University
Publicity Chair: Gayatri Mehta, University of North Texas

Program Committee:

Arun Chauhan, Indiana University
Marcelo Cintra, University of Edinburgh
Alexander G. Dean, North Carolina State University
Christophe Dubach, University of Edinburgh
Rajiv Gupta, UC Riverside
Wei-Chung Hsu, National Chiao Tung University
Michael Huang, University of Rochester
Hsien-Hsin Lee, Georgia Institute of Technology
Jaejin Lee, Seoul National University
Alex K. Jones, University of Pittsburgh
David Kaeli, Northeastern University
Gayatri Mehta, University of North Texas
Yunheung Peak, Seoul National University
Gary Tyson, Florida State University
David Whalley, Florida State University
Youfeng Wu, Intel
Xin Yuan, Florida State University
Antonia Zhai, University of Minnesota
Huiyang Zhou, North Carolina State University
Xiaotong Zhuang, IBM

Expanded versions of papers appearing in INTERACT will be considered for inclusion in a special issue of the Journal of Circuits, Systems, and Computers on the interaction between compilers and computer architectures.

