Fifteenth International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS 2010)

Pittsburgh, PA, March 13—17, 2010

http://www.ece.cmu.edu/CALCM/asplos10

ASPLOS is a forum for multidisciplinary research that spans the boundaries of hardware, computer architecture, compilers, languages, operating systems, networking, and applications. The ASPLOS conference series has captured some of the major computer systems innovations of the past two decades (e.g., RISC and VLIW processors, small and large-scale multiprocessors, clusters, optimizing compilers, network-storage systems, and system-level and language-level virtualization).

Computer systems today face great challenges and exciting opportunities, due to the end of single-processor performance scaling, new demands imposed by mobile and petascale computing, and the increasing need for energy efficiency across the computing spectrum. Multidisciplinary research is increasingly important as boundaries between hardware/software and local/network computing blur, as the form and capabilities of computing devices becomes ever more varied, and as users and applications continue to expand. In addition to the main program, this ASPLOS will offer tutorials and workshops on a variety of topical areas.

Like its predecessors, ASPLOS 2010 will focus on ground-breaking research, with an emphasis on the interplay of two or more of the major focus areas. A hardware or architecture component is *not* a necessary requirement for publication in ASPLOS: papers in both software and hardware areas are welcome. The program committee especially encourages research papers in non-traditional topics. Topics of interest include, but are not limited to:

- Interaction of operating systems, compilers, programming languages, and architectures
- Multidisciplinary research issues for multicore systems.
- Multidisciplinary research issues for new platforms from sensor networks to petascale systems.
- Multidisciplinary research issues raised by Internet services and cloud computing.
- Multidisciplinary research issues for graphics and media processing.
- Power and energy management in current and future computer systems.
- Network security, reliability, embedded computation and embedded storage.
- Case studies of architecture or software design in novel experimental systems.
- Security, reliability and availability for current and future computer systems.
- Novel systems solutions that address social, educational, and environmental challenges.
- Non-traditional computing models, including molecular, biological, and quantum computing.

Abstract Deadline	Monday, August 3, 2009♮
Full Paper Deadline	Monday, August 10, 2009 (11:59pm UTC)§
Rebuttal Period	Tuesday–Thursday, October 20-22, 2009 §
Notification of Acceptance	Friday, November 6, 2009
Final Paper Submission	TBD

♮ Abstract submission is *required* for full papers to be considered.

§ These deadlines are *hard*. No extensions will be given.

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