



MoBS 2006 Call For Papers

Workshop on Modeling, Benchmarking, and Simulation

<http://www.arctic.umn.edu/~jjyi/MoBS>

Held in conjunction with the 33rd Annual International
Symposium on Computer Architecture

Boston, Massachusetts
June 18, 2006

Organizers and Chairs:

Lieven Eeckhout, *Ghent University*
Joshua J. Yi, *Freescale Semiconductor*

Program Committee:

David I. August, *Princeton University*
Pradip Bose, *IBM Research T.J. Watson*
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Gokhan Memik, *Northwestern University*
Resit Sendag, *University of Rhode Island*
Tim Sherwood, *University of California, Santa Barbara*
Kevin Skadron, *University of Virginia*
Olivier Temam, *INRIA*

Overview:

With few exceptions, simulation is the quantitative foundation for virtually all computer architecture research and design projects – from microarchitectural exploration to hardware and software trade-offs to processor and system design. However, its continued efficacy is limited by problems such as increasing complexity, additional critical constraints (*e.g.* power consumption, reliability, *etc.*), an ever expanding design space, benchmark suite quality and coverage, and radical changes in processor architectures to compensate for technological changes (*i.e.* reduced transistor widths, *etc.*).

The primary goals of this workshop are to accelerate the development of simulation technologies that are necessary to support the research of future generation architectures – in particular, processors built with nanotechnology – and to encourage the advancement of “under-researched” areas in computer architecture measurement, such as multiprocessor simulation methodology; modeling; benchmark implementation and benchmark suite construction; and formal methods of design space exploration and performance analysis.

Topics of interest include, but are not limited to:

- New or efficient techniques to model performance, power, reliability, *etc.*
- Reduced simulation time techniques
- Simulation methodologies for multiprocessor simulation
- Development of parameterizable, flexible benchmarks
- Formal methods for benchmark suite construction or benchmark suite sub-setting
- Techniques to measure the characteristics (dissimilarity, coverage, *etc.*) of a benchmark suite
- Efficient processor modeling techniques
- Alternatives to cycle-accurate, execution-driven simulation
- Statistically-rigorous performance analysis techniques
- Analytical and statistical models

This workshop places a special premium on novelty and on preliminary work.

Submission Guidelines:

The authors should submit a 200 word or less abstract by 11:59 PM (CST) March 30, 2006. The full paper should be 5000 words or less and be submitted in pdf format by 11:59 PM (CDT) April 3, 2006. See workshop website for submission instructions. Papers that are excessively long may be rejected without review.

Important Dates:

Abstract Submission:	March 30, 2006
Full Paper Submission:	April 3, 2006
Notification Date:	May 1, 2006
Final Version Due:	May 22, 2006
Workshop Date:	June 18, 2006