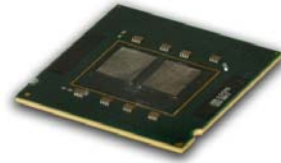
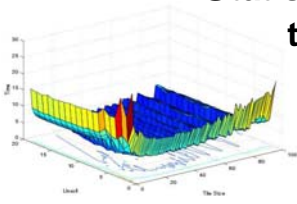


3rd Workshop on Statistical and Machine learning approaches to ARchitectures and compilaTion (SMART '09)



January 25, 2009, Paphos, Cyprus

(co-located with HiPEAC 2009 Conference)

Sponsored by:



Program Chair:

David Padua
University of Illinois at Urbana-
Champaign, USA

Organizers:

Grigori Fursin
INRIA Saclay, France

John Cavazos
University of Delaware, USA

Program Committee:

Saman Amarasinghe
MIT, USA

Francois Bodin
CAPS Enterprise, France

Calin Cascaval
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University of Delaware, USA

Franz Franchetti
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University of Edinburgh, UK

David Padua
University of Illinois at Urbana-
Champaign, USA

Richard Vuduc
Georgia Institute of
Technology, USA

David Whalley
Florida State University, USA

The rapid rate of architectural change and the large diversity of architecture features has made it increasingly difficult for compiler writers to keep pace with microprocessor evolution. This problem has been compounded by the introduction of multicores. Thus, compiler writers have an intractably complex problem to solve. A similar situation arises in processor design where new approaches are needed to help computer architects make the best use of new underlying technologies and to design systems well adapted to future application domains.

Recent studies have shown the great potential of statistical machine learning and search strategies for compilation and machine design. The purpose of this workshop is to help consolidate and advance the state of the art in this emerging area of research. The workshop is a forum for the presentation of recent developments in compiler techniques and machine design methodologies based on space exploration and statistical machine learning approaches with the objective of improving performance, parallelism, scalability, and adaptability.

Topics of interest include (but are not limited to):

Machine Learning, Statistical Approaches, or Search applied to

- Feedback-Directed Compilation
- Auto-tuning Programs + Language Extensions
- Library Generators
- Iterative Compilation
- Dynamic Compilation/Adaptive Execution
- Parallel Compiler Optimizations
- Low-power Optimizations
- Simulation
- Performance Models
- Adaptive Processor and System Architecture
- Design Space Exploration
- Other Topics relevant to Intelligent and Adaptive Compilers/Architectures

Paper Submission Guidelines:

Paper length - maximum 15 pages. Papers must be submitted in the PDF (preferably) or postscript formats using the workshop submission website.

An informal collection of the papers to be presented will be distributed at the workshop. All accepted papers will appear on the workshop website.

NEW PUBLICATION INFORMATION:

Selected papers will be considered for publication in a special issue of the International Journal of Parallel Programming.

Important Dates:

Final deadline for submission:	November 21, 2008
Decision notification:	December 19, 2008
Workshop:	January 25, 2009

Panel: *Can machine learning help to solve the multicore code generation issues?*

Francois Bodin (*Panel Chair*), Marcelo Cintra, Bilha Mendelson, Lawrence Rauchwerger, Per Stenstrom

Further info:

<http://www.hipeac.net/smart-workshop.html>