Call For Papers
Second International Workshop on
Data Management on New Hardware
(DaMoN 2006)

Sponsored by

Colocated with

**Chicago, Illinois
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ACM SIGMOD/PODS 2006

Objective

The aim of this one-day workshop is to bring together researchers who are interested in optimizing database performance on modern computing infrastructure by designing new data management techniques and tools.

Motivation

The continued evolution of computing hardware and infrastructure imposes new challenges and bottlenecks to program performance. As a result, traditional database architectures that focus solely on I/O optimization increasingly fail to utilize hardware resources efficiently. CPUs with superscalar out-of-order execution, simultaneous multi-threading, multi-level memory hierarchies, and future storage hardware (such as MEMS) impose a great challenge to optimizing database performance. Consequently, exploiting the characteristics of modern hardware has become an important topic of database systems research.

The goal is to make database systems adapt automatically to the sophisticated hardware characteristics, thus maximizing performance transparently to applications. To achieve this goal, the data management community needs interdisciplinary collaboration with computer architecture, compiler and operating systems researchers. This involves rethinking traditional data structures, query processing algorithms, and database software architectures to adapt to the advances in the underlying hardware infrastructure.

Important Dates

Paper submission:	**April 16**
Notification of acceptance:	**May 14**
Camera-ready copies due:	**May 28**

Topics Of Interest

We seek submissions bridging the area of database systems to computer architecture, compilers, and operating systems. In particular, submissions covering topics from the following non-exclusive list are encouraged:

- cost models and query optimization for novel hierarchical memory systems
- hardware systems for query processing
- data management using co-processors
- query processing using computing power in storage systems
- database architectures for low-power computing and embedded devices
- database architectures on multi-threaded and chip multiprocessors
- database performance analysis, algorithms, and data structures on modern hardware
- databases and transactional memory systems
- compiler and operating systems advances to improve database performance
- new benchmarks for microarchitectural evaluation of database workloads

Organization

Workshop Co-Chairs

Anastassia Ailamaki, Carnegie Mellon University
Peter Boncz, CWI Amsterdam
Stefan Manegold, CWI Amsterdam

Program Committee

Amr El Abbadi, Univ. of California Santa Barbara
Shimin Chen, Intel
Naga Govindaraju, U. of North Carolina Chapel Hill
Goetz Graefe, Microsoft
Sami Iren, Seagate
Bradley C. Kuszmaul, MIT
Qiong Luo, HKUST
Andreas Moshovos, University of Toronto

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