

Fifth International Workshop on Data Management on New Hardware DaMoN 2009

<http://www.ins.cwi.nl/projects/damon09>

Sponsored by and held in cooperation with SIGMOD/PODS 2009

Sunday, June 28, 2009
Providence, Rhode Island

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.

Topics of Interest

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, many-core, simultaneous multi-threading, multi-level memory hierarchies, flash storage and other future storage hardware (such as PCM) 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.

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:

- database algorithms and data structures on modern hardware
- 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
- performance analysis of database workloads on modern hardware
- compiler and operating systems advances to improve database performance
- new benchmarks for microarchitectural evaluation of database workloads

Important Dates

- Paper submission: **April 17, 2009**
- Notification of acceptance: May 11, 2009
- Camera-ready copies: May 29, 2009
- Workshop: **June 28, 2009**

Workshop Co-Chairs

- Kenneth Ross (Columbia University)
- Peter Boncz (CWI)

Program Committee

- Anastasia Ailamaki (EPFL Lausanne & CMU)
- Qiong Luo (HKUST)
- Bishwaranjan Bhattacharjee (IBM Research)
- Stavros Harizopoulos (HP Labs)
- Bongki Moon (University of Arizona)
- Amr El Abbadi (UC Santa Barbara)
- Andreas Moshovos (University of Toronto)
- Naga Govindaraju (Microsoft)
- Keshav Pingali (Univ. Texas))