The past few years have seen an explosion of interest in programming languages, systems, and hardware to support transactions, speculation, and related alternatives to classical lock-based concurrency. This workshop, the fourth in its series, will provide a forum for the presentation of research on all aspects of transactional computing. The scope of the workshop is intentionally broad, with the goal of encouraging interaction across the languages, architecture, systems, database, and theory communities. Papers may address implementation techniques, foundational results, applications and workloads, or experience with working systems. Environments of interest include the full range from multithreaded or multicore processors to high-end parallel computing. Experience reports are also welcome.

Topics

The workshop seeks papers on topics related to all areas of software and hardware for transactional computing. Specific topics of interest include but are not limited to:

- Runtime systems
- Language mechanisms and semantics
- Hardware support
- Speculative concurrency
- Memory models
- Debugging and tools
- Formal verification
- Nesting and exceptions
- Persistence and I/O
- Conflict detection and contention management
- Static analysis and compiler optimizations
- Applications, workloads, and test suites
- Checkpointing and failure atomicity
- Speculative concurrency
- Debugging and tools
- Nesting and exceptions
- Conflict detection and contention management
- Static analysis and compiler optimizations
- Applications, workloads, and test suites
- Checkpointing and failure atomicity

Papers should present original research and should provide sufficient background material to make them accessible to the broader community. Papers focused on foundations should indicate how the work can be used to advance practice; papers on experiences and applications should indicate how the experiments reinforce principles.

Submissions

Papers must be submitted in Postscript or PDF format, and must be no more than 10 pages in length in standard two-column SIGPLAN conference format. Shorter submissions are also welcome. Submissions must be made through the on-line submission site reachable from http://transact09.cs.washington.edu/.

Hard copies of final papers will be distributed at the meeting, but to facilitate resubmission to more formal venues, no archival proceedings will be published. Authors must be familiar with and abide by SIGPLAN’s republication policy, which forbids simultaneous submission to multiple venues and requires disclosing prior publication of closely related work.

At the discretion of the program committee and with the consent of the authors, particularly worthy papers may be recommended for a special journal issue.

General Chair
Craig Zilles, University of Illinois at Urbana-Champaign

Program Chair
Dan Grossman, University of Washington

Program Committee
Hans-J. Boehm, HP Labs
Sandhya Dwarkadas, University of Rochester
Faith Ellen, University of Toronto
Rob Ennals, Intel Research
Christof Fetzer, Dresden University of Technology
Milo Martin, University of Pennsylvania
Tom Henzinger, EPFL
Maged Michael, IBM Research
Mark Moir, Sun Microsystems
Kevin Moore, Sun Microsystems
Tatiana Shpeisman, Intel
Michael Swift, University of Wisconsin–Madison
Serdar Tasiran, Koc University
Michal Young, University of Oregon

Important dates
Submission deadline: November 21, 2008
11:59PM PST (deadline is firm)
Author notification: January 14, 2009
Final copy due: February 4, 2009
Workshop: February 15, 2009

Steering Committee
Babak Falsafi, EPFL
Pascal Felber, University of Neuchatel
Rachid Guerraoui, EPFL
Tim Harris, Microsoft Research
Maurice Herlihy, Brown University
Tony Hosking, Purdue University
Suresh Jagannathan, Purdue University
Doug Lea, SUNY Oswego
Maged Michael, IBM Research
Eliot Moss, University of Massachusetts
Michael Scott, University of Rochester
Jan Vitek, Purdue University