ISMM 2006 Program

Saturday, June 10, 2006

8:30-9:00  Continental Breakfast (Lower level Foyer)

9:00–9:15  Welcome
Erez Petrank (General Chair) and Eliot Moss (Program Chair)


10:15–10:45  Coffee Break

10:45–12:15  Session 1: Garbage Collection  (Richard Jones)

- A True Hardware Read Barrier, Matthias Meyer (University of Stuttgart)
- Reducing Generational Copy Reserve Overhead with Fallback Compaction, Phil McGachey and Antony L Hosking (Purdue University)
- Mark and Split, Konstantinos Sagonas (Uppsala University and National Technical University of Athens) and Jesper Wilhelmsson (Uppsala University)

12:15–14:00  Lunch (Lauier Salon)

14:00–15:30  Session 2: Garbage Collection on Multiprocessors  (Chandra Krintz)

- Portable, Mostly-Concurrent, Mostly-Copying Garbage Collection for Multi-processors, Antony L Hosking (Purdue University)
- Improving Locality With Parallel Hierarchical Copying GC, David Siegwart (IBM, Hursley) and Martin Hirzel (IBM, Watson)
- Task-Aware Garbage Collection in a Multi-Tasking Virtual Machine, Sunil Soman (UC Santa Barbara), Laurent Daynes (Sun Microsystems), and Chandra Krintz (UC Santa Barbara)

15:30–16:00  Coffee Break

16:00–17:00  Paper Session 3: Scalable Parallel Allocation  16:00–17:00 (Antony Hosking)

- McRT-Malloc - A Scalable Transactional Memory Allocator, Richard L. Hudson, Bratin Saha, Ali-Reza Adl-Tabatabai (Intel Corporation) and Benjamin Hertzberg (Stanford University)
- Scalable Locality-Conscious Multithreaded Memory Allocation, Scott Schneider, Christos Antonopoulos, Dimitrios Nikolopoulos (William and Mary)

ISMM sessions will take place in Cartler I
Sunday, June 11, 2006

8:30–9:00  Continental Breakfast (Lower level Foyer)

9:00–10:30  Session 4: Locality and Visualisation  (Martin Hirzel)

- **Decomposing Memory Performance: Data Structures and Phases**, Kartik Agaram, Steve Keckler, Calvin Lin and Kathryn McKinley *(University of Texas at Austin)*

- **Memory-Manager/Scheduler Co-Design: Optimizing Event-Driven Servers to Improve Cache Behavior**, Sapan Bhatia, Charles Consel *(INRIA)* and Julia Lawall *(DIKU / Univ of Copenhagen)*

- **Visualising Dynamic Memory Allocators**, Andrew Cheadle, Tony Field, John Ayres, Neil Dunn, Richard Hayden and Johan Nystrom-Persson *(Imperial College London)*

10:30–11:00  Coffee Break

11:00–12:00  Wild and Crazy Ideas: Moderated by Chandra Krintz

12:00-13:30  Lunch (Lauier Salon)

13:30–15:00  Paper Session 5: Formal Semantics and Static Analysis  (Kathryn McKinley)

- **Formal Semantics of Weak References**, Kevin Donnelly, Joe Hallett and Assaf Kfoury *(Boston University)*

- **Compile-Time Deallocation of Individual Objects**, Sigmund Cherem and Radu Rugina *(Cornell University)*

- **Compiler Optimizations for Nondeferred Reference-Counting Garbage Collection**, Pramod Joisha *(Microsoft Research)*

15:00-15:30  Coffee Break

15:30–17:00  Paper Session 6: Adaptive Techniques  (Erez Petrank)

- **Optimistic Stack Allocation for Java-like Languages**, Erik Corry *(Esmertec AG)*

- **Program-Level Adaptive Memory Management**, Chengliang Zhang, Kirk Kelsey, Xipeng Shen, Chen Ding *(University of Rochester)*, Matthew Hertz *(Canisius College)*, and Mitsunori Ogihara *(University of Rochester)*

- **Fast and Efficient Partial Code Reordering: Taking Advantage of Dynamic Recompilation**, Xianglong Huang *(University of Texas at Austin)*, Stephen M Blackburn *(Intel Corporation)*, David Grove *(IBM Watson)*, and Kathryn S McKinley *(University of Texas at Austin)*

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