

# ISMM 2006 Program

***Saturday, June 10, 2006***

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| 8:30-9:00   | <i>Continental Breakfast (Lower level Foyer)</i>   |
| 9:00-9:15   | <b>Welcome</b><br>Erez Petrank (General Chair) and Eliot Moss (Program Chair)  |
| 9:15-10:15  | <b>Keynote: Memory Management Challenges in the Power-Aware Computing Era</b> , Avi Mendelson, ( <i>Intel Corporation, Israel Design Center</i> )  |
| 10:15-10:45 | <i>Coffee Break</i>  |
| 10:45-12:15 | Session 1: <i>Garbage Collection</i> (Richard Jones) <ul style="list-style-type: none"><li>• <b>A True Hardware Read Barrier</b>, Matthias Meyer (<i>University of Stuttgart</i>)</li><li>• <b>Reducing Generational Copy Reserve Overhead with Fallback Compaction</b>, Phil McGachey and Antony L Hosking (<i>Purdue University</i>)</li><li>• <b>Mark and Split</b>, Konstantinos Sagonas (<i>Uppsala University and National Technical University of Athens</i>) and Jesper Wilhelmsson (<i>Uppsala University</i>)</li></ul>  |
| 12:15-14:00 | <i>Lunch (Lauier Salon)</i>  |
| 14:00-15:30 | Session 2: <i>Garbage Collection on Multiprocessors</i> (Chandra Krintz) <ul style="list-style-type: none"><li>• <b>Portable, Mostly-Concurrent, Mostly-Copying Garbage Collection for Multi-processors</b>, Antony L Hosking (<i>Purdue University</i>)</li><li>• <b>Improving Locality With Parallel Hierarchical Copying GC</b>, David Siegwart (<i>IBM, Hursley</i>) and Martin Hirzel (<i>IBM, Watson</i>)</li><li>• <b>Task-Aware Garbage Collection in a Multi-Tasking Virtual Machine</b>, Sunil Soman (<i>UC Santa Barbara</i>), Laurent Daynes (<i>Sun Microsystems</i>), and Chandra Krintz (<i>UC Santa Barbara</i>)</li></ul> |
| 15:30-16:00 | <i>Coffee Break</i>  |
| 16:00-17:00 | Paper Session 3: <i>Scalable Parallel Allocation</i> 16:00-17:00 (Antony Hosking) <ul style="list-style-type: none"><li>• <b>McRT-Malloc - A Scalable Transactional Memory Allocator</b>, Richard L. Hudson, Bratin Saha, Ali-Reza Adl-Tabatabai (<i>Intel Corporation</i>) and Benjamin Hertzberg (<i>Stanford University</i>)</li><li>• <b>Scalable Locality-Conscious Multithreaded Memory Allocation</b>, Scott Schneider, Christos Antonopoulos, Dimitrios Nikolopoulos (<i>William and Mary</i>)</li></ul>   |

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 Recompile**, 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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