General Chairs
Joel Emer, Intel
David Kaeli, Northeastern Univ.

Steering Committee
Dharma P. Agrawal, Univ. of Cincinnati
Laxmi Bhuyan, UC Riverside
Yale Patt, Univ. of Texas at Austin
Mark A. Franklin, Washington Univ.
Wen-Mei Hwu, Univ. of Illinois at Urbana-Champaign
Ashwini Nanda, IBM
Gabby Silberman, IBM

Program Chairs
Pen-Chung Yew, Univ. of Minnesota
David Lilja, Univ. of Minnesota

Program Committee
Dharma P. Agrawal, Univ. of Cincinnati
John Carter, Univ. of Utah
Frederic T. Chong, Univ. of California-Davis
Alok Choudhary, Northwestern Univ.
Tom Conte, North Carolina State Univ.
Kemal Efcio, IBM
Joel Emer, Intel
Babak Falsafi, Carnegie Mellon Univ.
Manoj Franklin, Univ. of Maryland College-Park
Jesse Fang, Intel
Wei-Cheung Hsu, Univ. of Minnesota
Lizy John, Univ. of Texas at Austin
David Kaeli, Northeastern Univ.
Kim Keeton, Hewlett Packard
Steven Kunkel, IBM
Mikko Lipasti, Univ. of Wisconsin-Madison
Gyungho Lee, Iowa State Univ.
Steven S. Lumetta, Univ. of Illinois at Urbana-Champaign
Margaret Martonosi, Princeton Univ.
Trevor Mudge, Univ. of Michigan
Shubu Mukherjee, Intel
Lawrence Rauchwerger, Texas A&M Univ.
Mike Schlawske, Hewlett Packard
Kevin Skadron, Univ. of Virginia
James E. Smith, Univ. of Wisconsin-Madison
Per Stenstrom, Chalmers Univ. of Technology
Josep Torrellas, Univ. of Illinois at Urbana-Champaign
Dean Tullsen, Univ. of California San Diego
Gary Tyson, Univ. of Michigan
Mateo Valero, UPC, Barcelona

Local Arrangements
John Kalamatianos, Sun Microsystems

Finance Chair
Shubu Mukherjee, Intel

Registration Chair
Srilatha Manne, Intel

Tutorial Chair
Gus Uht, Univ. of Rhode Island

Workshop Chair
Antonio Gonzalez, UPC, Barcelona

Publications Chair
Kevin Skadron, Univ. of Virginia

Publicity Chair
Andreas Moshovos, Univ. of Toronto

Workshops & Tutorial
Saturday, February 2, 2002

8:30am - 5:00pm:
CAECW-02: Computer Architecture Evaluation Using Commercial Workloads
Russell Clapp, IBM
Kimberly Keeton, Hewlett-Packard Laboratories
Ashwini Nanda, IBM TJ Watson Research Center

8:20am - 5:00pm:
PACS'02: Power-Aware Computer Systems
Babak Falsafi, CMU
T. N. Vijaykumar, Purdue

8:45am - 4:30pm:
SAN-1: Workshop on Novel Uses of System Area Networks
Mark Heinrich, Cornell
Evan Speight, Cornell

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Mark Heinrich, Cornell
Evan Speight, Cornell

Workshops & Tutorial
Sunday, February 3, 2002

8:30am - 12:00pm:
Tutorial: Designing Cluster-based Data Centers: Emerging Technologies and Research Challenges
Dhabaleswar K. Panda, The Ohio State University
Hemal Shah, Intel

8:30am - 5:00pm:
NSC-1: Workshop on Non-Silicon Computing
Nick Carter, UIUC
Seth Copen Goldstein, CMU

8:55am - 6:15pm:
NP-1: Workshop on Network Processors
Patrick Crowley, Univ. of Washington
Mark Franklin, Washington Univ. in St. Louis
Haldun Hadimioglu, Polytechnic Univ.
Peter Z. Onufryk, IDT

9:00am - 5:00pm:
INTERACT-6: Interaction between Compilers and Computer Architecture
Gyungho Lee, Iowa State

7:00pm: Reception, Sonesta Skyline Suites
### Monday, February 4, 2002

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:45</td>
<td>Introductory remarks from General and Program chairs</td>
</tr>
<tr>
<td>9:00</td>
<td>Keynote speaker: Timothy Chou, President, Oracle.com</td>
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<tr>
<td>9:30</td>
<td>Break</td>
</tr>
<tr>
<td>10:00</td>
<td>ENERGY AND THERMAL MANAGEMENT I</td>
</tr>
<tr>
<td></td>
<td>Session chair: A.Sivasubramaniam, Pennsylvania State Univ.</td>
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<tr>
<td></td>
<td>Microarchitectural Simulation and Control of di/dt-induced Power Supply Voltage</td>
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<td></td>
<td>Ed Grochowski, Dave Ayers, and Vivek Tiwari</td>
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<tr>
<td></td>
<td>Control-Theoretic Techniques and Thermal-RC Modeling for Accurate and Localized Dynamic Thermal Management</td>
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<td></td>
<td>Kevin Skadron, Mircea Stan, and Tarek Abdelzaher</td>
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<tr>
<td></td>
<td>Energy-Efficient Processor Design Using Multiple Clock Domains with Dynamic Voltage and Frequency Scaling</td>
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<tr>
<td>12:00</td>
<td>Lunch, Skyline Suites</td>
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### Tuesday, February 5, 2002

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>9:00</td>
<td>POTPOURRI</td>
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<tr>
<td></td>
<td>Session chair: Shubu Mukherjee, Intel</td>
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<tr>
<td></td>
<td>Reverse Tracer: A Software Tool for Generating Realistic Performance Test Programs</td>
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<td></td>
<td>M. Sakamoto, L. Brisson, A. Katsuno, A. Inoue, and Y. Kimura</td>
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<td></td>
<td>Tuning Garbage Collection in an Embedded Java Environment</td>
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<td></td>
<td>G. Chen, R. Shetty, M. Kandemir, N. Vijaykrishnan, M. J. Irwin, and M. Wolzko</td>
</tr>
<tr>
<td>10:00</td>
<td>BREAK</td>
</tr>
<tr>
<td>10:30</td>
<td>ENERGY AND THERMAL MANAGEMENT II</td>
</tr>
<tr>
<td></td>
<td>Session chair: Mahmut Kandemir, Pennsylvania State Univ.</td>
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<tr>
<td></td>
<td>Fine-grain Priority Scheduling for Memory-Intensive Applications</td>
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<td></td>
<td>Zhi Chun Zhu, Zhao Zhang, and Xiaodong Zhang</td>
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<tr>
<td></td>
<td>A New Memory Monitoring Scheme for Memory-Aware Scheduling and Partitioning</td>
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<tr>
<td></td>
<td>G. Edward Suh, Srinivas Devadas, and Larry Rudolph</td>
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<tr>
<td>12:00</td>
<td>Lunch, Skyline Suites</td>
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### Wednesday, February 6, 2002

<table>
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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>9:00</td>
<td>Keynote speaker: David A. Patterson, Pardee Chair of Computer Science University of California at Berkeley</td>
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<tr>
<td>10:00</td>
<td>Break</td>
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<tr>
<td>10:30</td>
<td>MULTIPROCESSOR SYSTEMS</td>
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<tr>
<td></td>
<td>Session chair: Babak Falsafi, Carnegie Mellon University</td>
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<tr>
<td></td>
<td>Bandwidth Adaptive Snooping</td>
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<td>Milo M. K. Martin, Daniel J. Sorin, Mark D. Hill, and David A. Wood</td>
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<td></td>
<td>CableS: Thread Control and Memory Management Extensions for Shared Virtual Memory Clusters</td>
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<td>Peter Jamieson and Angelos Bilas</td>
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<td>User-Level Communication in Cluster-Based Servers</td>
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<td></td>
<td>E. V. Carrera, S. Rao, L. Iftode, and R. Bianchini</td>
</tr>
<tr>
<td>12:00</td>
<td>Lunch, Skyline Suites</td>
</tr>
<tr>
<td>1:30</td>
<td>PANEL DISCUSSION</td>
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<td></td>
<td>What will have the greatest impact in 2010: The processor, the memory, or the interconnect?</td>
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<td>Moderator: Timothy Mark Pinkston (USC)</td>
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<td></td>
<td>Peter Balsdon, Christopher B. Colohan, Antonio Zhai, and Todd C. Mowry</td>
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<tr>
<td>6:00</td>
<td>BANQUET, New England Aquarium</td>
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<td></td>
<td>Buses leave at 6:00pm in front of the Royal Sonesta and will begin to return around 9:45pm</td>
</tr>
</tbody>
</table>

### Parallel Sessions

#### Tuesday, February 5, 2002

- **9:00** POTPOURRI
  - Session chair: Shubu Mukherjee, Intel
  - Reverse Tracer: A Software Tool for Generating Realistic Performance Test Programs
  - M. Sakamoto, L. Brisson, A. Katsuno, A. Inoue, and Y. Kimura
  - Tuning Garbage Collection in an Embedded Java Environment
  - G. Chen, R. Shetty, M. Kandemir, N. Vijaykrishnan, M. J. Irwin, and M. Wolzko

#### Wednesday, February 6, 2002

- **9:00** Keynote speaker: David A. Patterson, Pardee Chair of Computer Science University of California at Berkeley
- **10:30** MULTIPROCESSOR SYSTEMS
  - Session chair: Babak Falsafi, Carnegie Mellon University
  - Bandwidth Adaptive Snooping
  - Milo M. K. Martin, Daniel J. Sorin, Mark D. Hill, and David A. Wood
  - CableS: Thread Control and Memory Management Extensions for Shared Virtual Memory Clusters
  - Peter Jamieson and Angelos Bilas
  - User-Level Communication in Cluster-Based Servers
  - E. V. Carrera, S. Rao, L. Iftode, and R. Bianchini

### Conference Details

- **Monday, February 4, 2002**
  - Keynote: Timothy Chou, President, Oracle.com
  - Parallel Sessions: Energy and Thermal Management I
- **Tuesday, February 5, 2002**
  - Keynote: Yiannakis Sazeides, President, Oracle.com
  - Parallel Sessions: Energy and Thermal Management II
- **Wednesday, February 6, 2002**
  - Keynote: David A. Patterson, Pardee Chair of Computer Science
  - Parallel Sessions: Multiprocessor Systems

### Conference Notes

- **Dinner on your own**
- **End of Conference: 12:00**