



Workshop on Energy-Efficient Design 2009

June 20, 2009

Austin, Texas

- Continental breakfast** **8:00-8:30**
- Welcome and Introduction** **8:30-8:45**
- Datacenter power modeling and management** **8:45-9:45**
- Lakshmi Ganesh, Jie Liu, Suman Nath, Galen Reeves and Feng Zhao. *Unleash Stranded Power in Data Centers with RackPacker*
 - Steven Pelley, David Meisner, Thomas Wensch and Jim VanGilder. *Understanding and Abstracting Total Data Center Power*
 - Group discussion/survey on energy-efficiency issues in the datacenter.
- Server architecture and management (Invited Talk)** **9:45-10:15**
- Hillery Hunter. *Memory Quicksand: Unexpected Factors in Main Memory Power Management*
- Break** **10:15-10:30**
- Server architecture and management** **10:30-12:00**
- Anshul Gandhi, Mor Harchol-Balter, Rajarshi Das, Charles Lefurgy and Jeffrey Kephart. *Power Capping Via Forced Idleness*
 - Vlasia Anagnostopoulou, Susmit Biswas, Alan Savage, Ricardo Bianchini, Tao Yang and Frederic T. Chong. *Energy Conservation in Datacenters through Cluster Memory Management and Barely-Alive Memory Servers*
 - Madhu Saravana Sibi Govindan, Charles Lefurgy and Ajay Dholakia. *Using on-line power modeling for server power capping*
 - Group discussion/survey on server design and management issues
- Break for Lunch** **12:00-14:00**
- VLSI and Microarchitecture** **14:00-15:30**
- Timothy Miller, Nagarjuna Surapaneni, Radu Teodorescu and Joanne Degroat. *Flexible Redundancy in Robust Processor Architecture*
 - John Sartori and Rakesh Kumar. *Characterizing Voltage-scaling Limitations of Razor-based Designs*
 - Ronald Dreslinski, Michael Wieckowski, David Blaauw, Dennis Sylvester and Trevor Mudge. *Near Threshold Computing*
 - Group discussion/survey on VLSI and Microarchitecture design efficiency issues
- Break** **15:30-15:45**
- Panel Session: Where are the weeds in energy-efficiency?** **15:45-17:15**
- Panelists: Ricardo Bianchini* (Rutgers), Eugene Gorbato* (Intel), Tom Keller (IBM), Margaret Martonosi (Princeton), Trevor Mudge (Michigan), San Nassif (IBM), Roger Tiple* (HP), John Carter (IBM – moderator)