Session One: Cell Processor

Presentations:

- A novel SIMD architecture for the Cell heterogeneous chip-multiprocessor, IBM
  Authors: Michael Gschwind, Peter Hofstee, Brian Flachs, Marty Hopkins, Yukio Watanabe, Takeshi Yamazaki
- Cell Broadband Engine Interconnect and Memory Interface, IBM
  Authors: Scott Clark, Kent Haselhorst, Kerry Imming, John Irish, Dave Krolak, Tolga Ozguner
- Super Companion Chip with Audio Visual Interface for Cell Processor, Toshiba
  Authors: Takayuki Mihara, Kenichi Ishii, Naoki Sugawa
- Programming and Performance Evaluation of the CELL Processor, Toshiba
  Authors: Ryuji Sakai, Seiji Maeda, Christopher Crookes, Mitsuru Shimbayashi, Katsuhisa Yano, Tadashi Nakatani, Hirokuni Yano, Shigehiro Asano, Masaya Kato, Hiroshi Nozue, Tatsunori Kanai, Tomofumi Shimada, Koichi Awazu

Keynote I

Keynote Chair: Pradeep Dubey

“Facing the Hot Chip Challenge (Again)"

Keynote Speaker: William Holt (Vice President and General Manager, Technology and Manufacturing Group, Intel Corporation)
Session Two: Specialized Architectures I  
Session Chair: Teresa Meng  
Presentations:

- A Milliflow Aggregation Processor, Intel  
  Author: Bapi Vinnakota
- Barcelona: a Fibre Channel Switch SoC for Enterprise SANs, Cisco  
  Author: Nital P. Patwa
- High-Performance Pattern-Matching Engine for Intrusion Detection, IBM  
  Authors: Jan van Lunteren, Ton Engbersen

Session Three: Advanced Technology  
Session Chair: Forest Baskett  
Presentations:

- CMOS Photonics™ Technology - Enabling Optical Interconnects, Luxtera  
  Author: Cary Gunn
- 40-GHz Operation of a Single-flux-quantum (SFQ) Switch Scheduler, ISTEC  
  Authors: Y. Kameda, S. Yorozu, Y. Hashimoto, ISTEC, H. Terai, NICT  
  A. Fujimaki, Nagoya University, N. Yoshikawa, Yokonama National University

Session Four: Media Processors  
Session Chair: Keith Dieffendorff  
Presentations:

- Telairity-1: A Real Time H.264 High Definition Video Architecture, Telairity  
  Author: Richard Dickson
- Next-Generation Audio Engine, Tensilica  
  Author: Robert Kennedy
- High Speed Low Cost Nexperia PNX1700 Super-Pipelined Media-Processor, Philips  
  Author: Luis Lucas
- An Ultra High Performance, Scalable DSP Family for Multimedia, Cradle  
  Author: Erik Machnicki

Panel Discussion: The Next Killer Application  
Panel Chair: Howard Sachs  
Panelists: Pradeep Dubey (Intel), Edward Frank (Broadcom), Ajay Luthra (Motorola), David Kirk (Nvidia), Nick Tredenick

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