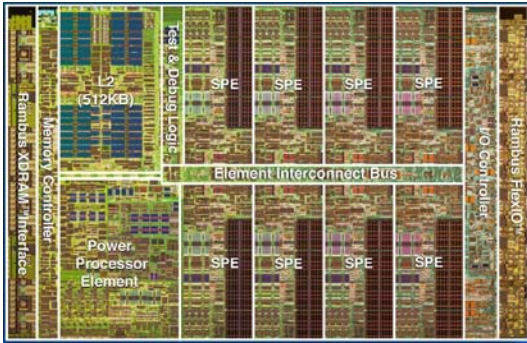


CALL FOR PARTICIPATION

2008 Workshop on Cell Systems and Applications

in conjunction with the 2008 International Symposium on Computer Architecture

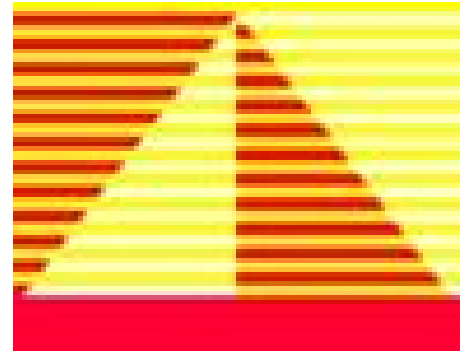


PRELIMINARY PROGRAM

<http://www.research.ibm.com/cell/workshop>

June 21 – 22, 2008

Beijing, People's Republic of China



REGISTRATION

The 2008 Workshop on Cell Systems and Applications is affiliated with the 2008 International Symposium on Computer Architecture. To register for the workshop, please visit the [ISCA website](http://isca2008.cs.princeton.edu/registration.html), or register directly at <http://isca2008.cs.princeton.edu/registration.html>

INVITATION TO IBM ACADEMY CONFERENCE

The IBM Academy of Technology will be organizing a conference on Application and Customer Experiences with the Cell BE on the morning of June 22, at the Beijing Continental Grand Hotel (which is linked to the Crowne Plaza hotel where ISCA will be taking place). Participants of the ISCA workshop on Cell System and Applications are cordially invited to attend the IBM Academy conference free of charge.

Saturday, June 21 (morning session)

Hardware performance, libraries and code generators

Session Chair: Michael Gschwind

Performance Characterization of IBM BladeCenter QS21 and QS22
Ibrahim Hur, Thomas Chen, Men-Chow Chiang, Edward Doan, IBM

FFT SIMD code generator for Synergistic Processor Element
Alex Chow, IBM

Parallel SVD of Bidiagonal Matrix on PowerXCell 8i
Bailing Wang, Jiaming Pan, Zhigang Gong, Rong Yan, Hongbo Peng, Ning Ge, IBM

Image and Media Processing

Session Chair: Yi Pang

Porting Pixie Renderer to Cell BE
Ng Kian Bee, Yin Xiang, Chris Chia, Nanyang Polytechnic, Singapore

Accelerating Mutual Information Based 3D Non-Rigid Registration Using the Cell/B.E. Processor
Jonathan Rohrer, Leiguang Gong, IBM

A Framework for media applications on Cell BE and Its Implementation for an IP Media Server Prototype
Zhenbo Zhu, Qing Wang, Ling Shao, IBM

Sunday, June 22 (afternoon session)

Keynote: Accelerating Mainframes with the Cell BE

Keynote Speaker: Carl Parris, IBM

Cell Applications

Session Chair: Moon Kim

High-Performance Seismic Acoustic Imaging by Reverse-Time Migration on the Cell/B.E. Architecture

Mauricio Araya-Polo, Felix Rubio, Raul de la Cruz, Mauricio Hanzich, Jose Maria Cela, BSC; Daniele Paolo Scarpazza, IBM

Developing Massive Crowds for the PlayStation 3

Tom Van Eyck, Ian O'Connell, Steven Collins, Trinity College, Dublin

Fast Pattern Matching on the Cell Broadband Engine

Francesco Iorio, Jan Van Lunteren, IBM

Parallelized Multi-view Video Coding on Cell

Yi Pang, Weidong Hu, Lifeng Sun, Dongsheng Wang, Shiqiang Yang, Tsinghua University, Beijing

Programming models and tools

Session Chair: Alex Chow

Post-Link Code Restructuring Optimizations for the Cell SPE
Daniel Citron and Yaakov Yaari, IBM

Optimizing Thread Local Storage Access for the Cell BE

Haibo Lin, Guansong Zhang, Zehra Sura, IBM

CellVM: A Homogeneous Virtual Machine Runtime System for a Heterogeneous Single-Chip Multiprocessor

Albert Noll, ETH Zurich; Andreas Gal, Michael Franz, UC Irvine

The Processor Simulator SimCell to Accelerate Research on Many-Core Processor Architectures

Shimpei Sato, Naoki Fujieda, Akira Moriya, Kenji Kise, Tokyo Institute of Technology

