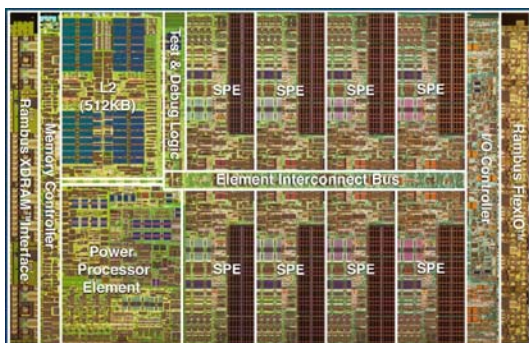


# CALL FOR PAPERS

## 2008 Workshop on Cell Systems and Applications

*in conjunction with the 2008 International Symposium on Computer Architecture*



June 21 – 22, 2008

Beijing, People's Republic of China

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The increasing needs of present and future computation-intensive applications have stimulated research in new and innovative approaches to the design and implementation of high-performance computing systems. At the same time, adoption of compute-intensive techniques in the embedded and consumer space offers new challenges in the areas of heat and temperature dissipation, integration, packaging and system cost.

The Cell Broadband Engine answers the multiple challenges on increased performance and integration and reduced system cost and power dissipation by presenting an integrated system architecture based on a heterogeneous chip multiprocessor with accelerators. Papers are sought on theory, methodologies, technologies, and implementations concerned with innovations in heterogeneous system architectures, computing paradigms, computational models, architectural paradigms, computer architectures, development environments, compilers, operating environments and in particular libraries and applications. Papers are solicited in, but not limited to, the following areas:

- Application porting and tuning for Cell BE architectures
- Acceleration middleware and non-numeric acceleration
- Programming languages and programming models for heterogeneous systems
- Exploiting explicitly managed memory hierarchies in applications
- Data management and blocking for local stores
- Architecture improvements for heterogeneous architectures and explicitly managed memory hierarchies
- Use of consumer embedded devices for computational grids
- Virtualization and virtual machines for heterogeneous architectures
- Compilers and operating systems
- Workload characterization of emerging applications and their performance on heterogeneous architectures
- Traditional and emerging high-performance applications
- Supercomputing and adaptation, porting and tuning of scientific libraries for Cell systems
- Using accelerator-based architectures to accelerate managed runtime environments
- Novel system architectures based on the Cell BE
- Computational biology

Submissions should have no more than 7000 words and be preferably in single column layout.

For more information visit the workshop web site at <http://www.research.ibm.com/cell/workshop>

### Important Dates

**Paper submission deadline  
May 1, 2008**

**Author notification  
May 18, 2008**

**Final papers due  
June 10, 2008**

### Submissions

Mail your submissions to:  
[mkg@us.ibm.com](mailto:mkg@us.ibm.com)

