

**Call for Papers**  
**Workshop on Emerging Supercomputing Technologies**  
**In Conjunction with the 25<sup>th</sup> International Conference on Supercomputing 2011**

Future exascale architectures and systems must leverage emerging technologies. No combination of existing technologies provides exascale capability within the footprint of today's high-performance systems. As system architects evaluate technology alternatives from device and circuit research, they must draw on specific application demands. If a technology is not to be perpetually emerging, compelling applications and system deployments must be found. This workshop promotes the exchange of ideas at the interfaces of supercomputing applications, high-performance architectures, and emerging technologies. New memory technologies are of particular interest.

**Topics of Interest:**

- Novel deployments of existing technology (e.g., Flash)
- Applications of emerging non-volatile memory (e.g., phase change memory).
- Applications of emerging memory architectures (e.g., eDRAM, 3D-stacking)
- High-performance application requirements for memory and storage
- Technology surveys and tutorials
- Scientific computing and supercomputer design and organization
- Commercial computing and datacenter design and organization
- Coordinated hardware-software design
- Performance analysis, modeling, auto-tuning, optimization
- Energy efficiency analysis, modeling, auto-tuning, optimization

**Submission Guidelines:**

Submissions must be 6 pages maximum, following ACM conference formatting guidelines. All submissions in PDF format. A collection of the best papers may be invited to a special issue of a journal to be determined.

Full papers: April 15

Reviews Due: May 2

Notification: May 6

Workshop: May 31

**Organizers:**

Benjamin C. Lee (Duke University), Magnus Sjölander (Chalmers University of Technology)

**Program Committee:**

Shane Canon, Lawrence Berkeley National Laboratory

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