

Call For Papers
Workshop on Managed Many-Core Systems (MMCS'09)
<http://www.cercs.gatech.edu/mmcs09/>
co-located with ASPLOS'09
March 7th 2009 - Washington, DC

Multi-core architectures (e.g., quad-cores) are now mainstream, and many research projects are exploring a future where multi-cores have evolved into many-cores architectures with hundreds to thousands of cores. This future requires a thorough rethinking of programming models and their supporting software stacks, to allow applications to make effective use of the computational power of these architectures.

This workshop addresses software challenges in homogeneous and heterogeneous many-core systems. Current approaches to resource management and virtualization are based on small-scale SMP architectures, and they fall short in terms of high-end scalability and support for heterogeneity and fine-grain parallelism. We aim at assessing new needs and their corresponding approaches, abstractions, and mechanisms for resource management issues such as scheduling, synchronization, caching, power management, and system monitoring.

We welcome both technical papers, describing ongoing research and preliminary insights, and position papers that introduce and argue for novel views.

Topics of interest include:

- * hypervisor structuring for many-core platforms
- * power management for many-core systems
- * support for heterogeneous cores
- * resource management in large scale systems
- * deployment of specialized cores as accelerators
- * specialized execution domains (e.g., I/O)
- * operating system abstractions for many-core platforms
- * driver applications and benchmarks

Relevant Dates:

Position Papers due: February 9th, 2009
Notification to Authors: February 23th, 2009
Final program available at website: March 1st, 2009

Submission guidelines to be found at <http://www.cercs.gatech.edu/mmcs09/>

General Chair

Dilma Da Silva, IBM TJ Watson Research Center

Program Co-Chairs

Milan Milenkovic, Intel

Karsten Schwan, Georgia Tech

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