

CALL FOR PAPERS
IEEE Transactions on Parallel and Distributed Systems
Special Issue on CMP Architectures
August Issue of 2007

IEEE Transactions on Parallel and Distributed Systems is seeking original manuscripts for a Special Issue on CMP Architectures, scheduled to be published in the **August issue of 2007**.

CMP architectures are gaining significant momentum as both academia and industry realize their potential for current and future platforms. This special issue will cover the challenges and opportunities of small-scale and large-scale CMP architectures for future server and client platforms. The CMP research topics that are of interest include architectural problems (core micro-architectures, cache / memory hierarchies, coherence protocols, interconnects, etc), technology and design issues (process implications, power and area considerations, etc) and evaluation methodologies (workload performance, simulation challenges, etc). A detailed list of the topics of interest is provided below. This special issue will consist of high quality papers that provide TPDS readers a detailed view of the on-going CMP research in these areas and highlight the key challenges and opportunities for future CMP platforms.

Topics of interest include, but are not limited to the following:

CMP Architectures

- Novel core micro-architectures
- Cache/Memory Hierarchies
- On-Die Interconnects

CMP Design and Technologies

- Design Space Exploration
- Process Implications & New Technologies
- Voltage/Clock Domain Management

CMP Simulation, Evaluation & Analysis

- Novel Evaluation Methodologies
- Application & Workload Analysis
- OS & Execution Environments Evaluation

Novel Uses of CMP Architecture

- Speculative Multithreading
- Helpers / Scouts / Assists
- Asymmetric/Heterogeneous Platforms

Submitted articles must not have been previously published or currently submitted for journal publication elsewhere. As an author, you are responsible for understanding and adhering to our submission guidelines. You can access them by going to <http://www.computer.org/mc/tpds/author.htm> . Please thoroughly read these before submitting your manuscript.

Please submit your paper to Manuscript Central at <http://cs-ieee.manuscriptcentral.com/>.

Please feel free to contact the Peer Review Manager, Suzanne Werner at swerner@computer.org or the guest editors at ravishankar.iyer@intel.com or tullsen@cs.ucsd.edu if you have any questions.

Please note the following important dates.

Manuscript Submission Deadline: **Sept. 1, 2006**

Reviews Completed: **Dec. 1, 2006**

Major Revisions Due (if Needed): **Feb. 1, 2007**

Reviews of Revisions Completed (if Needed): **Feb. 22, 2007**

Minor Revisions due (if needed): **Mar. 8, 2007**

Notification of Final Acceptance: **Mar. 20, 2007**

Final Manuscripts Due: **Apr. 4, 2007**

Publication Date: **Aug 2007**

Please address correspondence regarding this special issue to guest editors: **Ravi Iyer & Dean Tullsen**.

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