

SPECIAL ISSUE OF THE JOURNAL

“Journal of Parallel Computing”

<http://www.journals.elsevier.com/parallel-computing/#description>

Issue Title: Novel On-Chip Parallel Architectures and Software Support

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Theme:

This special issue attempts to create a platform to foster new ideas and technical insights in the design and analysis of emerging parallel architectures and systems and their scientific, engineering, and commercial applications. In particular, we would like to focus on issues on multi/many-core computing and programming, system-on-chip architectures/systems, application-specific multiprocessor architectures/systems, and OS/software support. We invite submissions of regular papers with unpublished original results and, by invitation, the revised and extended version of the papers presented in the High-Performance Computing Architectures (HPCA) Track at the 9th International Conference on Information Technology: New Generation (ITNG).

Specific Topics:

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

- Multi/many-core processor architectures
- System-on-chip (SoC) and network-on-chip (NoC) architectures
- Application-specific multiprocessor architectures/systems
- Power-efficient architectures and techniques for multi-core/SoC systems
- Application modeling and mapping schemes for multi/many-core/SoC systems
- Parallel programming models and compiler design for multi/many-core systems
- Parallelization and scheduling methodologies for multi/many-core systems
- OS/system/software support for memory hierarchy management
- OS/system/software support for processor management (scheduling and heterogeneity)
- OS/system/software support for power management
- OS/system/software support for multithreading, synchronization, and parallelism
- Debugger and performance analysis tools for multi/many-core processors

Journal Guide for Authors:

All submitted papers will be *peer-reviewed*. Accepted manuscripts must conform to the journal guide for Authors on:

http://www.elsevier.com/wps/find/journaldescription.cws_home/367/description

Important Deadlines

Submission of special issue manuscript: Jul. 15, 2012

Notification of special issue acceptance: Sept. 15, 2012

Submission of final journal version: Oct. 15, 2012