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## Special Issue on Parallel Computing (Par-Com)

Parallel computing, for many years the key technology of high end machines, is now the standard way of computing. The aim of the special issue is to give an overview of the state-of-the-art developments, applications and future trends in parallel computing for all platforms. The issue addresses all aspects of parallel computing, including parallel architectures, algorithms, programming models, hardware and software applications as well as languages and development environments. Authors are invited to submit original papers, and the main scopes of interest are (but not limited to):

(1). **Parallel Architectures:** Processor and Multi/many-core architectures, Interconnection networks, Parallel/distributed architectures, Reliability and fault-tolerance, Ubiquitous computing systems, Communication and telecommunication, Cloud Computing, Cluster and Grid computing systems, Reconfigurable architectures, tools and systems, Accelerators (ASICs, GPUs, ASIPs,...).

(2). **Parallel Algorithms:** Parallel/distributed algorithms, Task mapping and scheduling, Parallel/Distributed databases and knowledge discovery, High-performance scientific computing, High-performance reconfigurable computing, Power-aware Computing, Secure distributed computing, Resource allocation and management, Network routing and traffic control, Bioinformatics, Quantum computing, Social Computing, Cloud Computing.

(3). **Parallel Programming:** Multi/many-core programming, Parallel programming theory and models, Formal methods and verification, Middleware for parallel systems, Parallel programming languages, Compilers and runtime systems, Automatic parallelization, Parallel libraries and application frameworks, Performance analysis, Debugging and optimization, Parallel applications, Applications of high-end machines including exascale, Applications of multicores, GPU-based applications, Cloud applications, Concurrent data structures, Synchronization and concurrency control.

### Important Dates

<b>Submission Deadline</b>	<b>December 31<sup>st</sup>, 2011</b>
<b>Notification of Acceptance</b>	<b>March 1<sup>st</sup>, 2012</b>
<b>Final Submission Due</b>	<b>April 1<sup>st</sup>, 2012</b>
<b>Tentative Publication Date</b>	<b>4<sup>th</sup> Quarter, 2012</b>

### Submissions

Authors are invited to submit original and unpublished papers. In order to prepare a manuscript for submission to this special issue, please read the relevant Author Guidelines page at the Journal website: <http://www.academpublisher.com/jcp/authorguide.html>. Papers should be submitted to the Guest Editor, Dr. Chao Wang via email at: ([saintwc@mail.ustc.edu.cn](mailto:saintwc@mail.ustc.edu.cn), [chao.wang@ieee.org](mailto:chao.wang@ieee.org)). For any questions, please feel free to contact the Guest Editor.

### Guest Editors

**Chao Wang**, University of Science and Technology of China, Hefei, China  
(Email: [saintwc@mail.ustc.edu.cn](mailto:saintwc@mail.ustc.edu.cn), [chao.wang@ieee.org](mailto:chao.wang@ieee.org))