

Call for Papers

Journal of Grid Computing

Special Issue on High Performance Grid and Cloud Computing

High performance computing has expanded beyond single parallel computers. HPC led the way in the initial development of computational grids. High throughput and high capacity applications are heavy users of grid infrastructure. Many challenges remain in ensuring reliable high performance through optimal data and code placement, fault tolerance, scheduling, and resource management. While the cloud computing paradigm was not created with HPC in mind, its suitability for HPC is actively being explored. Areas of interest include the impact of virtualization and data placement on performance and the flexible nature of resources on programming models.

The special issue of JGC on high performance grid and cloud computing will give a forum to researchers and engineers to present their results related to all aspects of doing and supporting HPC in dynamic and heterogeneous distributed environments. Particular areas of interest include cloud and grid services, distributed applications, mapping applications and data on distributed resources, and programming models for distributed computing.

Topics

- **Applications:** Theory and practice cloud and grid computing.
- **Infrastructure:** Implementation and evaluation of services for distributed computing.
- **Management and Monitoring:** Account management, resource allocation and pricing.
- **Scheduling:** Application scheduling, workflow management.
- **Networking:** Bandwidth allocation, data routing, co-scheduling of network and compute resources.
- **Resource allocation:** Mapping data and applications on distributed resources.
- **Programming Models:** Middleware for remote execution and inter-task communication.
- **Virtualization:** Virtualization of computing, storage, and network resources.

Important Dates

- Papers Due: **Extended to September 30, 2011**
- First Round Decisions: November 10, 2011
- Revisions, if needed: December 20, 2011
- Final Decision: January 15, 2012

Paper Submission

Authors are invited to submit original and unpublished technical papers. All submissions will be peer-reviewed and judged on correctness, originality, technical strength,

significance, quality of presentation, and relevance to the special issue topics of interest. Submitted papers may not have appeared in or be under consideration for another workshop, conference or a journal, nor may they be under review or submitted to another forum during the review process. Submitted papers may not exceed 20 single-spaced double-column pages using 10-point size font on 8.5x11 inch pages (1" margins), including figures, tables, and references; note that accepted papers will likely be between 15 to 20 pages, depending on a variety of factors; for more information for preparing the submitted papers, please see

<http://www.springer.com/computer/communication+networks/journal/10723>, under "Instructions for Authors". The final papers (PDF format) must be submitted online at <http://grid.edmgr.com/> before the deadline of September 20th, 2011 at 11:59PM EST. For any questions on the submission process, please email the guest editors at hpgc.ipdps@gmail.com.

Editors

Special issue guest editors (email all at hpgc.ipdps@gmail.com):

- Eric Aubanel (aubanel@unb.ca), University of New Brunswick
- Virendra Bhavsar (bhavsar@unb.ca), University of New Brunswick
- Michael Frumkin (frumkin@google.com), Google

Editors-in-Chief of the Journal of Grid Computing:

- Peter Kacsuk, Hungarian Academy of Sciences
- Ian Foster, University of Chicago & Argonne National Laboratory



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