

# CALL FOR PAPERS



## 2005 IEEE International Conference on Cluster Computing

Boston, Massachusetts, USA

[www.cluster2005.org](http://www.cluster2005.org)

27-30 September 2005

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In less than a decade, clusters of commodity PCs have become the most cost-effective computing platforms for executing a wide range of high performance applications from molecular biology simulations to search and indexing on the Internet. In spite of countless deployed platforms and resounding application successes, many research and development challenges remain for achieving better performance, scalability, and usability. The IEEE TFCC Cluster 2005 conference provides an open forum for researchers, practitioners, and users to present and discuss issues, directions, and results that will shape the future of cluster computing. As cluster architecture is becoming a more mature field of application it remains particularly important to maintain an event that links the academic interests and new ideas to the experience reports of practitioners and application developers. See the upcoming Call for Participation for more details.

### SCOPE

Cluster 2005 welcomes paper and poster submissions from engineers and scientists in academia and industry describing original research work in all areas of cluster computing. Topics of interest include, but are not limited to:

#### **Cluster Architecture and Networking:**

- High-Speed System Interconnects
- Lightweight Communication Protocols
- Fast Message Passing Libraries
- Networking Cost/Performance

#### **Performance Analysis and Evaluation:**

- Monitoring and Profiling Tools
- Performance Prediction and Modeling
- Performance Analysis and Visualization

#### **Cluster Management and Maintenance:**

- Cluster Security and Reliability
- Tools for Managing Clusters
- Job and Resource Management
- High-Availability Clusters

#### **Cluster Software and Middleware:**

- Single-System Image Services
- Software Environments and Tools
- Standard Software for Clusters for Application Building

#### **Cluster Storage and Cluster I/O Subsystems:**

- I/O Libraries
- Realtime I/O (e.g in Physics)
- Distributed File Systems and RAIDs

#### **Applications:**

- Scientific Applications
- Data Distribution and Load Balancing
- Algorithms for Distributed Apps.
- Innovative Cluster Applications
- Scalable Internet Services on Clusters

#### **Grid Computing and Clusters:**

- Cluster Integration in Grids
- Network-Based Distributed Computing
- Cluster-Based Grid Services

### TECHNICAL PAPERS

Paper Format: Not to exceed 25 double-spaced, numbered pages (including title, author affiliations, abstract, keywords, figures, tables and bibliographical references) using 12 point font on 8.5x11-inch pages with 1-inch margins all around.

Submission: An on-line submission page is active on the conference web site. Authors should submit a PostScript (level 2) or PDF file. Hard copy submissions will not be accepted.

### JOURNAL SPECIAL ISSUE

Authors of the best papers from the conference will be invited to submit an expanded version of their papers for possible publication in a special issue of a journal in the corresponding field appearing in 2006.

### POSTERS

Format for submission: 1 page abstract in PDF including names of authors, their affiliation and a 200 word abstract sent as an e-mail attachment to the poster chair, Shawn Houston <poster@cluster2005.org>. Poster presentations will also be offered to the authors of technical papers that were not accepted for oral presentation but are recommended by the committee for this form of publication.

### IMPORTANT DATES

Paper Submissions Due . . . . . May 28, 2005  
Poster Submissions Due . . . . . May 28, 2005  
Paper Acceptance Notification . . . . . June 18, 2005  
Exhibition Proposal Due . . . . . June 23, 2005  
Poster Acceptance Notification . . . . . June 30, 2005

Camera-Ready Paper Manuscripts Due . . . . . July 16, 2005  
Camera-Ready Poster Abstracts Due . . . . . July 16, 2005  
Cut-off for group hotel rates. . . . . September 5, 2005  
Conference . . . . . September 27-30, 2005  
Post-Conference Workshops . . . . . September 30, 2005

