

CALL FOR PAPERS

Special Issue: Sustainable High Performance Computing (SHPC-2015)

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ABOUT THIS SPECIAL ISSUE

This Special Issue of OJCC aims to bring together contributions from all relevant areas for the benefit of sustainable high performance computing -- the non-lethal large scale typical distributed computing applications. Unlike traditional publications that favor successful novel technologies, this Special Issue of OJCC encourages submissions of credible in-depth stories that may be success or failure in dependable computing, autonomic computing, information security and sustainable high performance computing efforts. In fact, we can learn more from failures than successes. In particular, data intensive distributed computing efforts are highly encouraged since they are more difficult to secure, to practice dependability and be made autonomic-ally computable.

This Special Issue provides a platform for academic architecture researchers, industry practitioners and government agencies to exchange evolving distributed mission critical computing requirements, ideas and preliminary results.

As computational services are to become integral parts of human societies, performance, dependability, sustainability and security of these services directly impact future social and economic prosperity. This Special Issue will be a checkpoint of dependable computing, autonomic computing and sustainable HPC efforts. The results may prove to be of fundamentally importance towards the building of 21st century software engineering principles.

SCOPE

The special issue expects original, high-quality papers, including but NOT limited to the following topics:

- Theoretical foundation of programming volatile resources.
- Theoretical architecture concepts for volatile resources.
- Application scalability analysis using volatile resources.
- Investigative reports on delivered performance for computation intensive and data intensive applications with failure
- Investigative results on delivered cloud performances for computation intensive and data intensive applications
- Theoretical models and experiences in non-conventional HPC programming paradigms
- Experiences in using auction-based HPC cloud resources
- Experiences in virtualized GPU for HPC applications
- Experiences in virtualized network for HPC applications
- Innovative failure prevention and recovery methods

- HPC security considerations using cloud resources
- Communication infrastructure virtualization experiences
- Private cloud implementation experiences
- Innovative cloud auction pricing models

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IMPORTANT DATES

Submission Deadline: 10.09.2015

Author Notification: 25.10.2015

PREPARATION

For detailed information on the preparation of manuscripts, please visit Author Guidelines

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OPEN-ACCESS PUBLISHING FEES

In order to support open access, OJCC has to charge a one-time publication fee for each accepted article. Please visit the journal webpage for more information

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Note: Publication fees will be waived for accepted papers submitted before September 10, 2015.

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