

PCGRID 2010

4th Workshop on Desktop Grid and Volunteer Computing Systems

<http://pcgrid.imag.fr>

in conjunction with

IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGrid)

May 17-20, 2010

Melbourne, Australia

This year's workshop will have special emphasis on the interaction of clouds and desktop grids

OVERVIEW/SCOPE

Desktop grids and volunteer computing systems (DGVCS's) utilize the free resources available in Intranet or Internet environments for supporting large-scale computation and storage. For over a decade, DGVCS's have been one of the largest and most powerful distributed computing systems in the world, offering a high return on investment for applications from a wide range of scientific domains (including computational biology, climate prediction, and high-energy physics). While DGVCS's sustain up to PetaFLOPS of computing power from hundreds of thousands to millions of resources, fully leveraging the platform's computational power is still a major challenge because of the immense scale, high volatility, and extreme heterogeneity of such systems.

The purpose of the workshop is to provide a forum for discussing recent advances and identifying open issues for the development of scalable, fault-tolerant, and secure DGVCS's. The workshop seeks to bring desktop grid researchers together from theoretical, system, and application areas to identify plausible approaches for supporting applications with a range of complexity and requirements on desktop environments.

PAPER SUBMISSION

Authors are invited to submit a PDF manuscript of up to 6 pages in the IEEE format (10pt font, two-columns, single-spaced, 1-inch margins). The publication of the proceedings will be by the IEEE Computer Society Press in the same volume as the main conference.

IMPORTANT DATES

Manuscript submission deadline: November 30, 2009
Acceptance Notification: December 30, 2009
Camera-ready paper deadline: January 25, 2010

JOURNAL SPECIAL ISSUE

Selected papers will be invited to a special section of Elsevier Future Generation Computer Systems (FGCS) Journal.

TOPICS

- ▶ Cloud computing over unreliable enterprise or Internet resources
- ▶ DGVCS middleware and software infrastructure (including management), with emphasis on virtual machines
- ▶ incorporation of DGVCS's with Grid and Cloud infrastructures
- ▶ DGVCS programming environments and models
- ▶ modeling, simulation, and emulation of large-scale, volatile environments
- ▶ resource management and scheduling
- ▶ resource measurement and characterization
- ▶ novel DGVCS applications
- ▶ data management (strategies, protocols, storage)
- ▶ security on DGVCS's (reputation systems, result verification)
- ▶ multi-core DGVCS's
- ▶ fault-tolerance on shared, volatile resources
- ▶ peer-to-peer (P2P) algorithms or systems applied to DGVCS's

With regard to the last topic, we strongly encourage authors of P2P-related paper submissions to emphasize the applicability to DGVCS's in order to be within the scope of the workshop.

KEYNOTE SPEAKER

Prof. David Abramson
Director of eScience and Grid Engineering Lab
Monash University, Australia

GENERAL CHAIRS

Gilles Fedak, INRIA, France
Derrick Kondo, INRIA, France

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