

PCGRID 2011

5th Workshop on Desktop Grid and Volunteer Computing Systems

<http://pcgrid.imag.fr>

held in conjunction with the

IEEE International Parallel & Distributed Processing Symposium (IPDPS)

May 16-20, 2011

Anchorage, Alaska, USA

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 8 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 1, 2010
Acceptance Notification: December 28, 2010
Camera-ready paper deadline: February 1, 2011
Workshop: May 20, 2011

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.

The workshop proceedings will be published through the IEEE Computer Society Press as part of the IPDPS CD-ROM.

Keynote Speaker

Prof. Henri Casanova
University of Hawaii at Manoa, USA

General Chairs

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

Program Chair

Eric Heien, University of California at Davis, USA