

# 2010 CoreGRID/ERCIM Workshop on Grids, Clouds and P2P Computing

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## Foreword

CoreGRID is a European research Network of Excellence (NoE) that was initiated in 2004 as part of the EU FP6 research framework. The NoE developed theoretical foundations and software infrastructures to support the development of large-scale Grid and P2P applications. A CoreGRID Working Group, sponsored by ERCIM, was established in 2008 to ensure the continuity of the CoreGrid programme after the official end of NoE. The Working Group has the goals of:

- sustaining the operation of the CoreGRID Network; and
- establishing a forum to encourage collaboration between the Grid and P2P Computing research communities.

The original interests of CoreGrid have broadened to include the emerging field of service-based Cloud computing which is crucially important to the development of the European software industry. The CoreGRID community is using the experience gained from constructing inter-operable Grid middle-ware to contribute to the development of a service-oriented paradigm. CoreGrid members are playing an active part in developing service-based models such as Infrastructure as a Service (IaaS), Platform as a Service (PaaS) and Software as a Service (SaaS).

The CoreGRID organisation has organised a series of workshops to discuss state of the art developments in Grid, P2P and Cloud computing. The workshops have been attended by CoreGRID members and also by international experts in the area of distributed computing. Previous workshops took place in Pisa (2005), Krakow (2006), Heraklion (2007), Gran Canaria (2008) and Delft (2009). CoreGRID 2010 was held in Ischia-Naples. Topics open for discussion included Service Level Agreements, Data & Knowledge Management, Scheduling, Virtual environments, Network monitoring, Volunteer Computing Systems, Trust & Security, Self-\* and adaptive mechanisms, Advanced programming models including IaaS, PaaS and SaaS, Tools and Environments for Application Development and Execution.

The workshop received 18 submissions, of which 8 were accepted. The accepted papers were in the following areas:

- adaptive software management:  
*A framework for autonomic management of multiple non- functional concerns* by M. Aldinucci, M. Danelutto, P. Kilpatrick, V. Xhagjika; and  
*Adaptive instantiation of service workflows using a chemical approach* by C. Di Napoli, M. Giordano, Z.Németh, N. Tonello,
- interoperation and SLA negotiation in services:  
*Multi-level Brokering Solution for Interoperating Service and Desktop Grids* by A. Kertesz, Z. Farkas and P. Kacsuk; and  
*Dynamic Service Configurations for SLA Negotiation* by I. ul Haq, K. Koer, E. Schikuta,
- programming models and tools for grids and clouds:  
*First Class Futures: Specification and implementation of Update Strategies* by L. Henrio, M. Uzair Khan, N. Ranaldo, and E. Zimeo;  
*Actor-driven Workflow Execution in Distributed Environments* by S. Skorupa, F. Berretz, V. Sander, A. Belloum and M. Bubak; and  
*GroudSim: An Event-based Simulation Framework for Computational Grids and Clouds* by S. Ostermann, K. Plankensteiner, R. Prodan, and T. Fahringer,
- license management in distributed environments:  
*Software Licenses as Mobile Objects in Distributed Computing Environments* by C. Cacciari, D. Mallmann, C. Zsigri, F. D’Andria, B. Hagemeyer, D. García Pérez, A. Rumpl, W. Ziegler, M. Gozalo, and J. Martrat.

In addition to regular papers, three invited lectures were organized to discuss topics of current interest. The lectures were given by S. Newhouse, R. Yahyapour and V. Getov and an interesting discussion on the future of CoreGRID community activities followed.

The Workshop took place on 31 August 2010, with the various sessions being attended by between 50 and 70 participants.

We wish to thank all those that contributed to the success of the workshop: authors submitting papers, invited speakers, colleagues participating in the refereeing process / discussion session and Euro-Par 2010 organizers whose invaluable support greatly helped in the organisation of the Workshop.

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