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Euro-Par 2009

Parallel Processing

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Proceedings



Springer

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Preface

Euro-Par is an annual series of international conferences dedicated to the promotion and the advancement of all aspects of parallel computing. In Euro-Par, the field of parallel computing is divided into the four broad categories of theory, high performance, cluster and grid, and distributed and mobile computing. These categories are further subdivided into 14 topics that focus on particular areas in parallel computing. The objective of Euro-Par is to provide a forum for promoting the development of parallel computing both as an industrial technique and as an academic discipline, extending the frontier of both the state of the art and the state of the practice. The target audience of Euro-Par consists of researchers in parallel computing in academic departments, government laboratories, and industrial organizations.

Euro-Par 2009 was the 15th conference in the Euro-Par series, and was organized by the Parallel and Distributed Systems Group of Delft University of Technology in Delft, The Netherlands. The previous Euro-Par conferences took place in Stockholm, Lyon, Passau, Southampton, Toulouse, Munich, Manchester, Paderborn, Klagenfurt, Pisa, Lisbon, Dresden, Rennes, and Las Palmas de Gran Canaria. Next year, the conference will be held in Sorrento, Italy. More information on the Euro-Par conference series and organization is available on its website at <http://www.europar.org>.

Compared to Euro-Par 2008, the number of topics in the conference remained the same, but there were two changes in the topics. First, the subject of Cloud Computing was added to topic 6, which is now called Grid, Cluster, and Cloud Computing. Secondly, the topic Distributed and High-Performance Multimedia, which did not attract many paper submissions over the last few years, was replaced by the topic Multicore and Manycore Programming. This topic drew the largest number of submissions (31) of all the topics this year.

The reviewing of the papers in each topic was organized and supervised by a committee of at least four persons: a Global Chair, a Local Chair, and two Vice-Chairs. Certain topics with a high number of submissions were managed by a larger committee with more Vice-Chairs. The final decisions on the acceptance or rejection of the submitted papers were made in a meeting of the conference Co-chairs and the Local Chairs of the topics.

The call for papers attracted a total of 256 submissions, representing 41 countries (based on the corresponding authors' countries). A total number of 947 review reports were collected, which makes for an average of 3.7 reviews per paper. In total, 85 papers representing 22 countries were selected for presentation at the conference and inclusion in the conference proceedings, which means an acceptance rate of 33%. Four papers were selected as distinguished papers, which happen to be nicely distributed across the four categories of the conference. These distinguished papers, which were presented in a separate session, are:

1. Alexandru Iosup, *POGGI: Puzzle-Based Online Games on Grid Infrastructures*
2. Giorgos Georgiadis and Marina Papatriantafylou, *A Least-Resistance Path in Reasoning About Unstructured Overlay Networks*
3. Diego Rossinelli, Michael Bergdorf, Babak Hejazialhosseini, and Petros Koumoutsakos, *Wavelet-Based Adaptive Solvers on Multi-core Architectures for the Simulation of Complex Systems*
4. Abhinav Bhatel , Eric Bohm, and Laxmikant V. Kal , *A Case Study of Communication Optimizations on 3D Mesh Interconnects*

Euro-Par 2009 was very happy to be able to present three invited speakers of international reputation, who discussed important developments in very different areas of parallel and distributed computing:

1. Michael Perrone (IBM T.J. Watson Research Center, Yorktown Heights, NY, USA): *Multicore Programming Challenges*
2. Henri Bal (Vrije Universiteit, Amsterdam, The Netherlands): *Ibis: A Programming System for Real-World Distributed Computing*
3. Antony Rowstron (Microsoft Research, Cambridge, UK): *What Is in a Namespace?*

Euro-Par 2009 had a record number of 9 workshops co-located with the conference. These workshops had their own Program Committees and managed their own programs. The proceedings of most of these workshops will be published in a joint volume also by Springer. The workshops held in conjunction with Euro-Par 2009 were the:

1. CoreGRID ERCIM Working Group Workshop on Grids, P2P and Service Computing
2. 6th International Workshop on Grid Economics and Business Models (Gecon 2009)
3. 7th International Workshop on Algorithms, Models, and Tools for Parallel Computing on Heterogeneous Platforms (HeteroPar'2009)
4. Third Workshop on Highly Parallel Processing on a Chip (HPPC 2009)
5. Second Workshop on Productivity and Performance (PROPER 2009)
6. Second International Workshop on Real-Time Online Interactive Applications on the Grid (ROIA 2009)
7. UNICORE Summit 2009
8. 4th Workshop on Virtualization in High-Performance Cloud Computing (VHPC'09)
9. XtreamOS Summit

Organizing and hosting the 15th Euro-Par conference in Delft was only possible with the help of many people and organizations. First of all, we thank the authors of all the submitted papers, the members of the topic committees, and all the reviewers for their contributions to the success of the conference. In addition, we thank the three invited speakers for accepting our invitation to present their views on their very interesting areas of expertise in parallel and distributed

computing. We are also grateful to the members of the Euro-Par Steering Committee for their support, and in particular to Luc Bougé for all his advice on the paper submission and reviewing process. We acknowledge the help we obtained from Tomàs Margalef of the organization of Euro-Par 2008. A number of institutional and industrial sponsors contributed toward the organization of the conference. Their names and logos appear on the Euro-Par 2009 website at <http://europar2009.ewi.tudelft.nl/>.

It was our pleasure and honor to organize and host Euro-Par 2009 at Delft University of Technology. We hope all the participants enjoyed the technical program and the social events organized during the conference.

August 2009

Henk Sips
Dick Epema
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