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Euro-Par 2007

Parallel Processing

13th International Euro-Par Conference
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Proceedings

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Preface

Euro-Par is an annual series of international conferences dedicated to the promotion and advancement of all aspects of parallel and distributed computing. The major themes can be divided into the broad categories of hardware, software, algorithms and applications for parallel and distributed computing. The objective of Euro-Par is to provide a forum to promote the development of parallel computing both as an industrial technique and an academic discipline, extending the frontier of both the state of the art and the state of the practice. This is particularly important at a time when parallel and distributed computing is undergoing strong and sustained development and experiencing real industrial take-up. The main audience for, and participants in, Euro-Par are researchers in academic departments, government laboratories and industrial organizations. Euro-Par's objective is to be the primary choice of such professionals for the presentation of new results in their specific fields of expertise. Euro-Par is also interested in applications that demonstrate the effectiveness of the main Euro-Par themes.

Previous Euro-Par conferences took place in Stockholm, Lyon, Passau, Southampton, Toulouse, Munich, Manchester, Paderborn, Klagenfurt, Pisa, Lisbon and Dresden. The next conference will take place in Las Palmas de Gran Canaria (Canary Islands, Spain), organized by colleagues of the University Autònoma of Barcelona (UAB) and the University of Las Palmas de Gran Canaria (ULPGC).

The Euro-Par conference series is traditionally organized in cooperation with the International Federation for Information Processing (IFIP) and the Association for Computer Machinery (ACM). Euro-Par has a permanent Web site where its history and organization are described: <http://www.europar.org/>.

Euro-Par 2007, the 13th conference in the Euro-Par series, was organized by the Brittany Research Center of the French National Institute for Research in Computer Science and Control (INRIA), in the framework of the IRISA Research Laboratory, a joint lab between CNRS, INRIA, University of Rennes 1, INSA Rennes, and ENS Cachan, Brittany Campus.

CoreGRID is the European Research Network on Foundations, Software Infrastructures and Applications for large-scale distributed, GRID and Peer-to-Peer Technologies, a domain which lies at the heart of the Euro-Par interest. For the first time, the CoreGRID Symposium, a major event for this network of excellence, has been concomitantly organized and co-located with Euro-Par. For its first edition, the CoreGRID Symposium attracted more than 50 submissions from all over Europe. This will also be the occasion for a number of CoreGRID Working Groups to organize their regular meetings.

Also, four prominent workshops were organized with the conference:

GECON 2007, the 4th International Workshop on Grid Economics and Business Models

VHPC 2007, the Workshop on Virtualization in High-Performance Cluster and Grid Computing

HPPC 2007, the Workshop on Highly Parallel Processing on a Chip

UNICORE Summit 2007, the Annual User Group Meeting for the UNICORE environment

This co-location of workshops is intended to be the start of a general trend. Euro-Par is eager to develop and stabilize a set of co-located workshops in the coming years. As in 2006, Springer acknowledges this initiative by publishing the proceedings of these workshops in a special volume of the LNCS series.

Euro-Par 2007 was able to attract three most renowned invited speakers. Their talks highlighted some of the most recent trends in parallel and distributed computing:

Rachid Guerraoui (EPFL, Lausanne, Switzerland): *Sommersby: Transactions are back: but are they the same?*

Steve Hand (University of Cambridge, UK): *Virtualizing the Data Center with Xen*

André Seznec (IRISA, INRIA, Rennes, France): *15 mm × 15 mm: the new frontier of parallel computing*

Compared to the traditional conference format, Euro-Par 2007 tried to shrink the number of topics, and thereby get a larger number of submissions per topic. This was done on purpose, as we felt that it would improve the reliability of the reviewing and the selection process. Fourteen topics were defined and advertised, covering a large variety of aspects of parallel and distributed computing.

Each topic was initially supervised by a committee of four: a global chair, a local chair, and two vice-chairs. If more than 20 papers were submitted, this committee was extended with additional members to keep the reviewing load within reasonable bounds.

The call for papers attracted a total of 333 submissions. For all of the submitted papers, at least three and often four individual review reports were collected. A total of 89 papers were finally accepted for publication, of which 3 received the special honor of being nominated as *Best Papers*. The global acceptance rate was thus below 27%. The authors of accepted papers come from 27 countries, with the four main contributing countries — USA, France, Spain and Germany, — accounting for more than 60% of the authors of accepted papers.

Hosting Euro-Par 2007 in Rennes would not have been possible without the support and the help of different institutions and numerous people.

Although we are thankful to many more people, we are particularly grateful to Édith Blin, as she put a huge amount of work in the organization of the conference, always combining efficiency and enthusiasm, smoothing consistently the whole process of organizing the conference.

We would also like to thank Marin Bertier and Yann Busnel for their tremendous help; Marin was in charge of putting together the proceedings and was an extremely reliable helper on many other fronts. Yann Busnel successfully found his way around the submission software and ensured a smooth and efficient submission and review management process.

We are obviously most thankful to the main contributors of the conference, namely, the authors of all the submitted papers, the Program Committee members and the numerous reviewers. Their commitment greatly contributed to the success of the conference. We are also extremely grateful to our three invited speakers, Rachid Guerraoui, Steven Hand and André Seznec, for accepting our invitation. We would like to thank them for their most valuable contribution to the conference.

We also would like to address our special thanks to the Euro-Par Steering Committee and especially to Christian Lengauer for his support all along the preparation of the conference. We also strongly benefited from the help and the experience of the former organization team of Euro-Par 2006 of Dresden. José Cuhna was extremely helpful and we thank him for his support.

Euro-Par 2007 was hosted on the University Campus and we would like to thank the Department of Computer science (IFSIC) of the University of Rennes 1 for the support and infrastructure. We gratefully acknowledge the great financial and organizational support of INRIA and IRISA as well as the support of our institutional sponsors the University of Rennes 1, the Regional Council, Rennes Métropole, the local council, the Métivier Foundation, and the *Pôle de compétitivité Images & Réseaux* and the city of Rennes.

Finally, we are grateful to Springer for agreeing to publish the proceedings. It has been a great pleasure to organize Euro-par 2007 and we hope the header will enjoy these proceedings.

June 2007

Anne-Marie Kermarrec
Luc Bougé
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