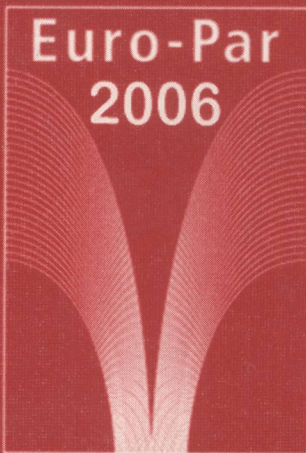Wolfgang E. Nagel
Wolfgang V. Walter
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Euro-Par 2006
Parallel Processing

**12th International Euro-Par Conference
Dresden, Germany, August/September 2006
Proceedings**

Euro-Par
2006

Springer

Wolfgang E. Nagel
Wolfgang V. Walter
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Euro-Par 2006 Parallel Processing

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Preface

Euro-Par Conference Series

Euro-Par is an annual series of international conferences dedicated to the promotion and advancement of all aspects of parallel computing. The major themes can be divided into the broad categories of hardware, software, algorithms and applications for parallel computing. The objective of Euro-Par is to provide a forum within which 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 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, and Lisbon. The next conference will take place in Rennes. The Euro-Par conference series is traditionally organized in cooperation with the International Federation for Information Processing (IFIP), the Association for Computer Machinery (ACM), and the Institute of Electrical and Electronics Engineers (IEEE) Computer Society, Technical Committee on Parallel Processing (TCPP). Euro-Par has a permanent website where its history and organization are described: http://www.europar.org .

Euro-Par 2006 in Dresden, Germany

Euro-Par 2006, the 12th conference in the Euro-Par series, was chiefly organized by the Center for Information Services and High Performance Computing (ZIH) in collaboration with the Department of Informatics and the Institute of Scientific Computing at the Technische Universität Dresden.

Three prominent workshops were collocated with the conference: the Core-Grid Workshop on Grid Middleware, the UNICORE Summit Workshop, and the Petascale Computational Biology and Bioinformatics Workshop. For the first time at a Euro-Par conference, real-time applications requiring high bandwidth were presented as part of a Grid Village exhibit complementing the Industrial Exhibition. A special Industrial Session was reserved within the main conference program for technical presentations by the exhibitors.

Euro-Par 2006 was able to attract three renowned invited speakers. Their talks highlighted some of the most recent trends:

Dominik Marx (Theoretical Chemistry, Ruhr-Univ. Bochum): *The Virtual Laboratory: Scientific Computing Beyond the Cutting Edge.*

Ajay K. Royyuru (Computational Biology Center, IBM T.J. Watson Research Center): *Deep Computing in Biology: Challenges and Progress.*

Alistair Dunlop (OMII-Europe, the Open Middleware Infrastructure Institute, Univ. of Southampton): *Integrating and Interoperability of Grid Infrastructures in OMII-Europe.*

Euro-Par 2006 Statistics

Compared with the traditional conference format, Euro-Par 2006 introduced two new topics — *High-Performance Bioinformatics* and *Embedded Parallel Systems* — for a total of 18 topics covering a large variety of aspects of parallel and distributed computing. Each topic was supervised by a committee of four: a global chair, a local chair, and two vice-chairs. The call for papers attracted a total of 290 submissions. For most of the submitted papers, at least three and often four individual review reports were collected. A total of 110 full papers were finally accepted, of which 5 received the special honor of distinguished paper. The acceptance rate was thus below 38 %. The submitting authors of accepted papers are from 26 countries, with the four main contributing countries — Germany, Spain, France and the USA — accounting for 67 accepted papers.

Acknowledgments

We are also grateful to the members of the Euro-Par Steering Committee for their support. We owe special thanks to Christian Lengauer, chairman of the Steering Committee, who was always available to share with us his experience in the organization of Euro-Par, for giving us friendly advice, support, and encouragement. We also thank Luc Bougé, vice-chair, for his vision and contributions to improve Euro-Par conferences.

Specific thanks are due to the authors of all the submitted papers, the 72 members of the 18 topic committees, and the vast number of reviewers, for contributing to the success of this conference.

Last, but not least, we are grateful to Springer for agreeing to publish these proceedings, thus continuing a long and successful Euro-Par tradition.

It was a pleasure and an honor to host Euro-Par 2006 at the Technische Universität Dresden. We hope that we were able to make it a memorable event for all participants.

Dresden, June 2006   Wolfgang E. Nagel
                                                       Wolfgang V. Walter
                                                          Wolfgang Lehner

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