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High-Performance Computing and Networking

9th International Conference, HPCN Europe 2001
Amsterdam, The Netherlands, June 25-27, 2001
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Preface

This volume contains the proceedings of the international HPCN Europe 2001 event that was held in Amsterdam, The Netherlands, June 25–27, 2001. HPCN (High Performance Computing and Networking) Europe was organized for the first time in 1993 in Amsterdam as the result of several initiatives in Europe, the United States, and Japan. HPCN Europe events were then held in Munich (1994), Milan (1995), Brussels (1996), Vienna (1997), at Amsterdam RAI in 1998/9, and then at the University of Amsterdam, Watergraafsmeer, in 2000 and 2001.

HPCN 2001 was a conference and multi-workshop event. At the conference there were 3 conference tracks presenting 56 selected papers in the following areas: Web/Grid Applications of HPCN, End User Applications of HPCN, Computational Science, Computer Science, as well as 2 poster sessions with 30 presentations.

Three renowned speakers presented the HPCN 2001 keynote lectures: Giovanni Aloisio (U. of Lecce, Italy), on Grid Applications in Earth Observing, Paul Messina (Caltech, California, USA), on Using Terascale Grids in Science, and Jose Moreira (IBM, New York, USA) on Performance and Prospects for Java.

Since research in HPCN is progressing rapidly, newly emerging domains of this field and their present and possible future applications are covered by five thematic workshops. Over 20 well-known experts from Europe and the United States participated in the organization of the workshops and agreed to present invited lectures demonstrating the current trends in their fields of interest.

The workshop “Demonstrations of the Grid” featured a few significant speakers, and each presented a live demonstration of high-performance computing and networking, together with an explanation. The associated workshop on “Scheduling Grid Resources” covered practical aspects of getting work done using these powerful resources. The workshop “Java in High Performance Computing” covered ways of using this developer-friendly language for high-performance computing. After the first full release of the human genome a few months before, the “Bioinformatics” workshop is especially apt, and we expect this segment of computing to take up more space in the next HPCN. The workshop on “Monte-Carlo Numerical Methods” was an informative exchange on developments in this burgeoning field.

The papers included in the proceedings reflect the multidisciplinary character and broad spectrum of the field. We thank all contributors for their cooperation. Due to the high quality of almost 200 submitted contributions, the selection of papers for oral and poster presentation was not simple. We are very grateful to the reviewers for their efforts in evaluating so many papers in a very short time. The best conference papers will be published in a special issue of the journal, *Future Generation Computer Systems*.

The drawing up of an interesting program for the conference would not have been possible without the invaluable suggestions and contributions of the members of the HPCN 2001 Program Committee. We highly appreciate the personal effort of the members of the local organizing committee and the conference secretariat. Special thanks to Berry van Halderen and Lodewijk Bos who prepared these proceedings. We would like to express our sincere thanks to Berry van Halderen for setting up the paper submission engine, and Anne Frenkel and Joost Bijlmer for creating the web pages.

The organizers acknowledge the help of the Dutch HPCN foundation, the Dutch Organization for Scientific Research, the University of Amsterdam, Hewlett Packard Corporation, Cosinus Computing bv, and the council of the city of Amsterdam for supporting the event. Finally we thank all the attendees and contributors to the conference who made this conference and multi-workshop a high quality event!

May 2001

Bob Hertzberger
Alfons Hoekstra
Roy Williams

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Java in High Performance Computing

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