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Volume Editors

Bob Hertzberger

Peter Sloot

University of Amsterdam, WINS

Kruislaan 403, 1098 SJ Amsterdam, The Netherlands

E-mail: bob@fwu.uva.nl

peterslo@fwu.uva.nl

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PREFACE

The international HPCN Europe event originates from several initiatives in Europe, the United States of America, and Japan. In Europe several groups, the Rubbia Advisory Committee, the European Industry initiative, the Teraflops initiative, and others, encouraged the European Commission to start an HPCN programme for Europe. It recognised the economic, scientific, and social importance of HPCN technology for Europe.

Members of these groups started the first HPCN Europe conference in 1993 in Amsterdam. It was agreed that there should be some form of coordination with the American counterpart Supercomputing USA. Since 1994, the foundation HPCN Europe and Royal Dutch Jaarbeurs have organised the HPCN Europe conference and exhibition in different European countries. The venue for 1997 is Vienna, Austria.

The HPCN Europe 1997 event aims to be *the* European HPCN event combining a high quality conference with a high level exhibition. It also emphasises end-user applications, in particular those coming from industry. Therefore the purpose of the event is to bring together (industrial) end-users and researchers to discuss the state of the art in HPCN, acknowledging the multi-disciplinary character and broad spectrum of the field.

The fifth HPCN Europe aims to model itself on last year's event. Therefore the conference has four tracks; one on industrial end-user applications, one on general end-user applications, one on computational science, and one on computer science aspects of HPCN. It was decided to make this year's industrial end-user track the joint responsibility of the HPCN programme committee and the vendor board. Consequently it is composed of submitted as well as invited presentations. Only the submitted papers of this track have been published in the proceedings.

The conference proceedings include all the accepted papers and posters from all four conference tracks. More than 200 papers were received. The organisers are grateful for the hard work of the programme committee in selecting around 90 papers and 40 posters in the short time frame that was available.

The organisers would particularly like to thank the chairs and co-chairs of the programme committee, Prof. Dr. A. Bode, Dr. B. Chapman, Dr. A. Colbrook, Prof. Dr. S. Jähnichen, Prof. Dr. M. Kersten, Dr. B. Madahar, Dr. J. Rahola, and Dr. P.M.A. Sloot, under whose responsibility the final paper selection took place and who assembled this year's very interesting and focused programme. These proceedings reflect the results of all this work, whereas a collection of the best papers will later be selected for publication in FGCS of North-Holland. The organisers were pleased to observe the high quality of the submitted contributions.

The HPCN Foundation is responsible for the HPCN Europe 97 conference, the vendor board for the invited presentation part of the industrial end-user track, as well as for the vendor sessions. The Technology Demonstrator Display (TDD) is the responsibility of the corresponding steering committee whereas the exhibition and the TDD are organised by Royal Dutch Jaarbeurs, the latter in collaboration with the Dutch Computer Centre SARA.

This event would not have been possible without the broad and personal support and the invaluable suggestions and contributions of the members of the programme committee, the vendor board, the TDD committee and the advisory board. The face and focus of the HPCN Europe event was the work of the HPCN Europe 1997 organising committee. The organisers in particular want to thank the chair of the vendor board, Dr. F. Baetke for his continuous efforts to further focus the event, as well as getting the industrial end-user track in shape.

The organisation wants to express its gratitude to the programme and conference secretariats, Laura Lotty and Lodewijk Bos, as well as to the vendor board secretariat, Jaap Hollenberg. They would like to thank the computer support group of the WINS Faculty of the University of Amsterdam as well as SARA for all the support in electronic communication. The organisers acknowledge the help of the EC and Royal Dutch Jaarbeurs in supporting this event.

February 1997

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