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Euro-Par'99

Parallel Processing

5th International Euro-Par Conference
Toulouse, France, August 31 – September 3, 1999
Proceedings



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Preface

Euro-Par is an international conference 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 seen as researchers in academic departments, government laboratories and industrial organisations. Euro-Par's objective is to become the primary choice of such professionals for the presentation of new results in their specific areas. Euro-Par is also interested in applications which demonstrate the effectiveness of the main Euro-Par themes.

There is now a permanent Web site for the series <http://brahms.fmi.uni-passau.de/cl/europar> where the history of the conference is described. Euro-Par is now sponsored by the Association of Computer Machinery and the International Federation of Information Processing.

Euro-Par'99

The format of Euro-Par'99 follows that of the past four conferences and consists of a number of topics each individually monitored by a committee of four. There were originally 23 topics for this year's conference. The call for papers attracted 343 submissions of which 188 were accepted. Of the papers accepted, 4 were judged as distinguished, 111 as regular and 73 as short papers. Distinguished papers are allowed 12 pages in the proceedings and 30 minutes for presentation, regular papers are allowed 8 pages and 30 minutes for presentation, short papers are allowed 4 pages and 15 minutes for presentation. Distinguished papers are indicated in the table of contents with a superscribed asterisk after the title. Four extra pages could be purchased for distinguished papers, two for regular papers and one for short papers. There were on average 3.5 reviews per paper. Submissions were received from 44 countries, 34 of which are represented at the conference. The principal contributors by country are France with 39 papers, the U.S.A. with 22, Germany with 19, and the U.K., Italy and Spain with 13 papers each. This year's conference, Euro-Par'99, features new topics such as fault avoidance and fault removal in real-time systems, instruction-level parallelism and uniprocessor architecture, and global environment modelling.

The Web site for the conference is <http://www.enseeiht.fr/europar99/>.

Acknowledgments

Knowing the quality of the past Euro-Par conferences makes the task of organising one daunting indeed and we have many people to thank. Ron Perrott, Christian Lengauer, Luc Bougé, Jeff Reeve and David Pritchard have given us the benefit of their experience and helped us generously throughout the past 18 months. The topic structure of the conference means that we must depend on the goodwill and enthusiasm of all the 90 programme committee members listed below. Their professionalism makes this the most academically rigorous conference in the field worldwide. The programme committee meeting at Toulouse in April was well attended and, thanks to sound preparation by everyone and Ron Perrott's guidance, resulted in a coherent, well-structured conference. The smooth running of the organisation of the conference can be attributed to a few individuals. Firstly the software for the submission and refereeing of papers that we inherited from Lyon via Passau was significantly enhanced by Daniel Ruiz. This attracted many compliments from those who benefited. Valérie Frayssé and Luc Giraud spent copious hours checking, printing and correcting papers. Finally, Brigitte Yzel, secretary to the conference and the CERFACS Parallel Algorithms Project, has been invaluable in monitoring the conference organisation and seeing to the myriad of tasks that invariably arise.

June 1999

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The conference has been jointly organised by CERFACS (Centre Européen de Recherche et de Formation Avancée en Calcul Scientifique) and ENSEEIHT-IRIT (Ecole Nationale Supérieure d'Electronique, d'Electrotechnique, d'Informatique et d'Hydraulique de Toulouse - Institut de Recherche en Informatique de Toulouse).

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