

# Preface

## Euro-Par

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 which can be reached at <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'98

The format of Euro-Par'98 follows that of the past two conferences and consists of a number of workshops each individually monitored by a committee of four. There were 23 original workshops for this year's conference. The call for papers attracted 238 submissions of which 129 were accepted. Of the papers accepted 5 were judged as distinguished, 70 as regular and 54 as short papers. Distinguished papers are allowed 12 pages in the proceedings and 30 minutes for presentation, regular papers are allowed 8 pages and 15 minutes for presentation, short papers are allowed 4 pages and 15 minutes for presentation. Two extra pages could be purchased. There were on average 3.6 reviews per paper. Submissions were received from 33 countries 26 of which are represented at the conference. The principal contributors by country are the UK with 23 papers, Germany 22, France 19 and the USA 16.

The Web site for the conference is at <http://www.europar98.ecs.soton.ac.uk>.

## Acknowledgements

Knowing the quality of past Euro-Par conferences makes the task of organising one daunting indeed and we have many people to thank. Ron Perrott, Christian

Lengauer and Luc Bougé have given us the benefit of their experience and helped us generously throughout the past 18 months. The workshop structure of the conference means that we must depend on the goodwill and enthusiasm of all the 77 programme committee members listed below. Their professionalism makes this the most academically rigorous conference in the field worldwide. The programme committee meeting at Southampton 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 the papers that we inherited from Lyons via Passau was significantly enhanced by Flavio Bergamaschi. This attracted many compliments from those who benefited. Panagiotis Melas ably assisted by Duncan Simpson spent copious hours checking, printing and correcting papers. Finally Lesley Courtney, secretary to the conference and the research group, has been invaluable in monitoring the conference organisation and seeing to the myriad of tasks that invariably arise, including organising the social programme.

Southampton, June 1998

Jeff Reeve and David Pritchard.

## Euro-Par Steering Committee

### Chair

Ron Perrott Queen's University Belfast, UK

### Vice Chair

Emilio Zapata University of Malaga, Spain

### Committee

Luc Bougé ENS Lyon, France  
 Agnes Bradier EC, Belgium  
 Helmar Burkhart University of Basel, Switzerland  
 Paul Feautrier University of Versailles, France  
 Ian Foster Argonne National Lab, USA  
 Seif Haridi SICS, Sweden  
 Peter Kacsuk KFKI, Hungary  
 Christian Lengauer University of Passau, Germany  
 Jeff Reeve University of Southampton, UK  
 Paul Spirakis CTI, Greece  
 Marian Vajtersic Slovak Academy, Slovakia  
 Jens Volkert Johannes Kepler University, Austria  
 Makoto Amamiya Kyushu University, Japan

## Euro-Par'98 Local Organisation

The conference has been organised by the Concurrent Computation Group of the Department of Electronics & Computer Science, University of Southampton

### Chairs

Tony Hey  
 Jeff Reeve

### Committee

Alistair Dunlop  
 Hugh Glaser  
 Luc Moreau  
 Mark Papiani  
 David Pritchard

### Secretary

Lesley Courtney

### Technical Support

Flavio Bergamaschi  
 Panagiotis Melas  
 Duncan Simpson



**Workshop 5+9+15: Distributed Systems and Database Systems****Global Chairs**

Andreas Reuter	International University in Germany
Ernst Mayr	TU Munich, Germany

**Local Chairs**

Lionel Brunie	ENS Lyon, France
Pavlos Spirakis	CTI, Greece
Kam-Fai Wong	Hong Kong University

**Vice Chairs**

Harald Kosch	University of Klagenfurt, Austria
Usama Fayyad	Microsoft
Arbee Chen	National Tsing Hua University, Taiwan
Friedemann Mattern	TU Darmstadt, Germany
Marios Mavronicolas	University of Cyprus, Cyprus

**Workshop 6+16+18: Languages****Global Chairs**

Denis Caromel	University de Nice - INRIA Sophia Antipolis
Christian Lengauer	University of Passau, Germany
Mike Quinn	Oregon State University

**Local Chairs**

Antonio Corradi	University of Bologna, Italy
Henk Sips	Technical University, Delft, Netherlands
Murray Cole	University of Edinburgh, UK

**Vice Chairs**

Gul Agha	University of Illinois
Geoffrey Fox	University of Syracuse
Phil. Hatcher	University of New Hampshire, USA
Luc Bougé	ENS Lyon, France
Beverly Sanders	University of Florida, Gainesville
Gaétan Hains	University of Orléans, France

**Workshop 7+20: Numerical and Symbolic Algorithms****Global Chairs**

Wolfgang Küchlin	University of Tübingen, Germany
Maurice Clint	Queen's University Belfast, UK

**Local Chairs**

Ali Abdallah	University of Reading, UK
Marian Vajtersic	Slovak Academy, Slovakia

**Vice Chairs**

Krzysztof Apt	CWI, Netherlands
Kevin Hammond	University of St. Andrews, Scotland
Michael Thune	University of Upsala, Sweden
Peter Arbenz	Institute for Sci. Computing, Switzerland

**Workshop 10+17+21+22:  
Theory and Applications of Parallel Computation**

**Global Chairs**

Bill McColl	Oxford University, UK
Mike Brady	University of Oxford, UK
Paul Messina	California Institute of Technology
Freidel Hossfeld	Forschungszentrum Julich GmbH, Germany

**Local Chairs**

Michel Cosnard	INRIA, Nancy, France
Paul Lewis	University of Southampton, UK
Ed Zaluska	University of Southampton, UK

**Vice Chairs**

Andrea Pietracaprina	University of Padova, Italy
Frank Dehne	Carlton University, Canada
Patrice Quinton	IRISA-CNRS, Rennes, France
Hartmut Schmeck	University of Karlsruhe, Germany
Rajeev Thakur	Argonne National Laboratory, USA
David Walker	University of Wales, UK

**Workshop 13+14: Architectures and Networks**

**Global Chairs**

Abhiram Ranade	Indian Institute of Technology, Bombay
Mateo Valero	UPC Barcelona, Spain

**Local Chairs**

Kieran Herley	University College Cork, Eire
David Snelling	FECIT, UK

**Vice Chairs**

Sanguthevar Rajasekaran	University of Florida
Geppino Pucci	University of Padova, Italy
Olivier Temam	University of Versailles, France
Nigel Topham	University of Edinburgh, UK
Rupert Ford	University of Manchester, UK

**Esprit Workshop**

**Global Chair**

Ron Perrott	Queen's University Belfast
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**Local Chair**

Colin Upstill	PAC, University of Southampton
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**Vice Chairs**

Jesus Labarta	Universitat Politecnica de Catalunya, Spain
Karl Solchenbach	PALLAS, Germany

## Other Referees

Arbab, Farhad  
Barthou, Denis  
Bischof, Stefan  
Buffo, Mathieu  
Detert, Ulrich  
Ellmenreich, Nils  
Erlebach, Thomas  
Esser, Ruediger  
Flammini, Michele  
Foisy, Christian  
Formenti, Enrico  
Friedetzky, Tom  
Gerndt, Michael  
Gorlatch, Sergei  
Harmer, Terence  
Hascoet, Laurent  
Hege, Hans-Christian  
Herrmann, Christoph  
Hogstedt, Karin  
Irigoin, Francois  
Jerraya, Ahmed  
Lazure, Dominique  
Lim, Amy  
Ludwig, Thomas  
Massingill, Berna  
Mattern, Friedemann  
McKendrick, Rob  
Mehaut, Jean-Francois  
Mery, Dominique  
Mountjoy, Jon  
Namyst, Raymond  
Pazat, Jean-Louis  
Perez, Christian  
Rauber, Thomas  
Redon, Xavier  
Robert, Yves  
Scales, Dan  
Schwabe, Eric  
Stadtherr, Hans  
Stewart, Alan  
SurrIDGE, Mike  
Thompson, Simon  
Trinder, Phil  
Utard, Gil  
Vivien, Frederic  
Wedler, Christoph  
Wonnacott, David  
Zait, Mohamed