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J.W. de Bakker, A.J. Nijman and P.C. Treleaven



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Preface

PARLE, the conference on Parallel Architectures and Languages Europe, was organized as a meeting place for researchers in the field of theory, design and applications of parallel computer systems. The initiative for the conference was taken by project 415 of ESPRIT (the European Strategic Programme for Research and Development in Information Technology). The scope of the conference covered central themes in the area of parallel architectures and languages including topics such as concurrent, object-oriented, logic and functional programming, MIMD and reduction machines, process theory, design and verification of parallel systems, performance evaluation, interconnection networks, systolic arrays, VLSI and RISC architectures, applications and special purpose architectures.

The scientific programme of PARLE consisted firstly of five invited lectures devoted to overviews of major recent research areas. Moreover, 44 papers were selected for presentation from 156 submitted ones. The program committee for PARLE was constituted as follows:

S. Abramsky (Imperial College)*	V.E. Kotov (Novosibirsk)
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Members of the Program Committee who were present at the selection meeting are marked by a *.

We wish to extend our sincere thanks to the members of the Program Committee for their invaluable contributions to the shaping of the PARLE programme. We also express our gratitude to the PARLE referees for their assistance in this process.

The programme of PARLE furthermore comprised presentations on the subprojects which together constitute ESPRIT project 415. Parallel architectures based on a variety of programming styles (object-oriented, logic, functional, dataflow) were represented in these overviews.

The Proceedings of PARLE are collected in two volumes, the first one containing the papers in which the emphasis is more on Parallel Architectures, together with ESPRIT project 415 overviews, and the second one containing the papers which fall under the heading of Parallel Languages.

PARLE has received substantial sponsorship from the ESPRIT program, and from the companies which together form the consortium for ESPRIT project 415: AEG, West Germany; Nixdorf (Stollmann), West Germany; Bull, France; CSELT, Italy; GEC, UK; Philips, the Netherlands.

Philips Research Eindhoven was responsible for the local organization of PARLE. A special tribute is due to Frank Stoots for his skilful, cheerful and meticulous handling of all organizational details. Hans Oerlemans provided valuable help at crucial moments in the PARLE preparations. The Dutch National Concurrency Project assisted at various points in the organization. Technical support has been provided by the Centre for Mathematics and Computer Science, in particular by Ms. L. Vasmel-Kaarsemaker, and by University College London.

Thanks to the contributions of all the above listed persons and institutions, we have been able to collect in these two volumes a wealth of material on the theme of PARLE. The editors would be amply rewarded for their efforts if these results were to prove instrumental for the further advancement of European research on Parallel Architectures and Languages.

March 1987

The Editors,

J.W. de Bakker

A.J. Nijman

P.C. Treleaven

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