

PROCEEDINGS

SBAC-PAD'99

**11th Symposium on Computer Architecture
and High Performance Computing**



**BRAZILIAN
COMPUTER
SOCIETY**

**Natal, RN - Brazil
Sep 29th - Oct 2nd, 1999**

SBAC-PAD' 99

Proceedings

11th Symposium on Computer Architecture and High Performance Computing

September 29 - October 2, 1999.
Natal, RN – Brazil

Editors
Philippe O. A. Navaux
Tiarajú A. Diverio
Cláudio R. Geyer

Sponsored by
Brazilian Computer Society
Instituto de Informática da UFRGS
Departamento de Informática e Matemática Aplicada da UFRN

Instituto de Informática da UFRGS.
Porto Alegre.



Cover: Tatiana G.S. dos Santos and Rafael R. dos Santos.
Photo: Marco Aurélio S. Mangan and Patricia Kayser Vargas.
Printed by: Evangraf Ltda (Porto Alegre, RS, Brazil)

Cataloging-in-Publication data applied for
Biblioteca do Instituto de Informática da UFRGS (CIP), Porto Alegre, Brasil

Symposium on Computer Architecture and High Performance Computing
(11. : 1999 September 29 - October 2 : Natal, RN)

Proceedings / 11 th Symposium on Computer Architecture and High Performance Computing; editors Philippe O A Navaux, Tiarajú A Diverio, Cláudio F R Geyer. - Porto Alegre: Instituto de Informática da UFRGS, 1999.

324 p.

1. Computer Architecture. 2. High Performance Computing . I. Navaux, Philippe O. A. II. Diverio, Tiarajú A. III. Geyer, Cláudio F.R. IV. Título

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General Chair's Message

It is a great pleasure to welcome all of you to Natal in order to attend the Eleventh Symposium on Computer Architecture and High Performance Computing sponsored by the Brazilian Computer Society. Since 1987, the SBAC-PAD series aims at providing a high quality forum for the researchers on computer architecture, parallel and distributed processing and correlated fields.

The SBAC-PAD series is getting on the internationalization process. In order to world widely spread the results, the paper's format was changed and the authors were encouraged to write the papers in English. Besides, well known speakers were invited to make their contribution to the researcher's community. I am indebted to count on the presence of Professor Yale Patt, University of Texas at Austin, who will bring us his experience in computer architecture education and his point of view about the next generation microprocessors. I am also glad to have Professors Frank Dehne from Carleton University-Canada, Jean-Luc Gaudiot from University of Southern California, and John Reed from University of Illinois at Urbana-Champaign, contributing at bringing up some of the current most important aspects of high performance computing.

All the 90 submitted papers had at least three reviewers. The entire evaluation process, going from the submission through the reception of the reviews, was electronically taken. I would like to thank the Program Chair Professor Cláudio Geyer, the Program Committee Members and the 60 reviewers for their good job in the timely conduction of the review process.

Special thanks to Tiarajú Diverio and Rafael Santos, who headed the Organizing Committee staff. I recognize their endeavor in monitoring the organization of the conference looking at the myriad of tasks which have arisen throughout these 12 months of job. I would also like to recognize the contribution of the Informatics Institute of the Federal University of Rio Grande do Sul and the Department of Informatics and Applied Mathematics of the Federal University of Rio Grande do Norte.

Finally, SBAC-PAD could not have happened without the sponsorship of FINEP, CNPq, CAPES, FAPERGS and NEC.

I hope you enjoy your time in the SBAC-PAD technical and social programs and the exciting city of Natal.

Porto Alegre, September 29, 1999.
Philippe O A Navaux
General Chair
Federal University of Rio Grande do Sul

Program Chair's Message

It is a great pleasure to welcome you to SBAC-PAD'99, the eleventh of a series of conferences on computer architecture and high performance computing started in 1987.

We believe SBAC-PAD had achieved a good quality level over these twelve years and this is confirmed by the increasing number of submissions. Ninety papers were submitted this year and forty three papers were selected to be presented and published in the SBAC-PAD'99 proceedings. Some paper's statistics are presented below:

a) Concerning the first author:

Country	Submitted Papers	Accepted Papers
Brazil	58	26
Germany	8	5
USA	7	4
England	2	2
France	4	2
Portugal	2	2
Argentine	1	1
Canada	1	1
Other countries	7	0
Total	90	43

b) Concerning the topics:

Topic	Accepted Papers
Application-specific architectures	4
Benchmarking and measurements	2
Cache and memory architectures	4
Distributed and object-oriented operating systems	1
Fault-tolerant architectures and systems	1
High performance applications	5
High performance processor architectures	5
Interconnection networks	3
Languages and compilers for parallel and distributed programming	4
Parallel and distributed computer architecture	5
Scheduling and load balancing	5
Simulation and performance evaluation	4
Total	43

I would like to express my gratitude to all the authors, referees, program committee members, and organizing committee members, who contributed in their different ways so this conference could became possible. Finally, I would like to thank all the sponsors who generously gave their support to this conference.

Cláudio Fernando Resin Geyer
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SBAC – PAD 99

11th Symposium on Computer Architecture and High Performance Computing

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ISBN 85-7025-498-9

