Proceedings

Second International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS II)

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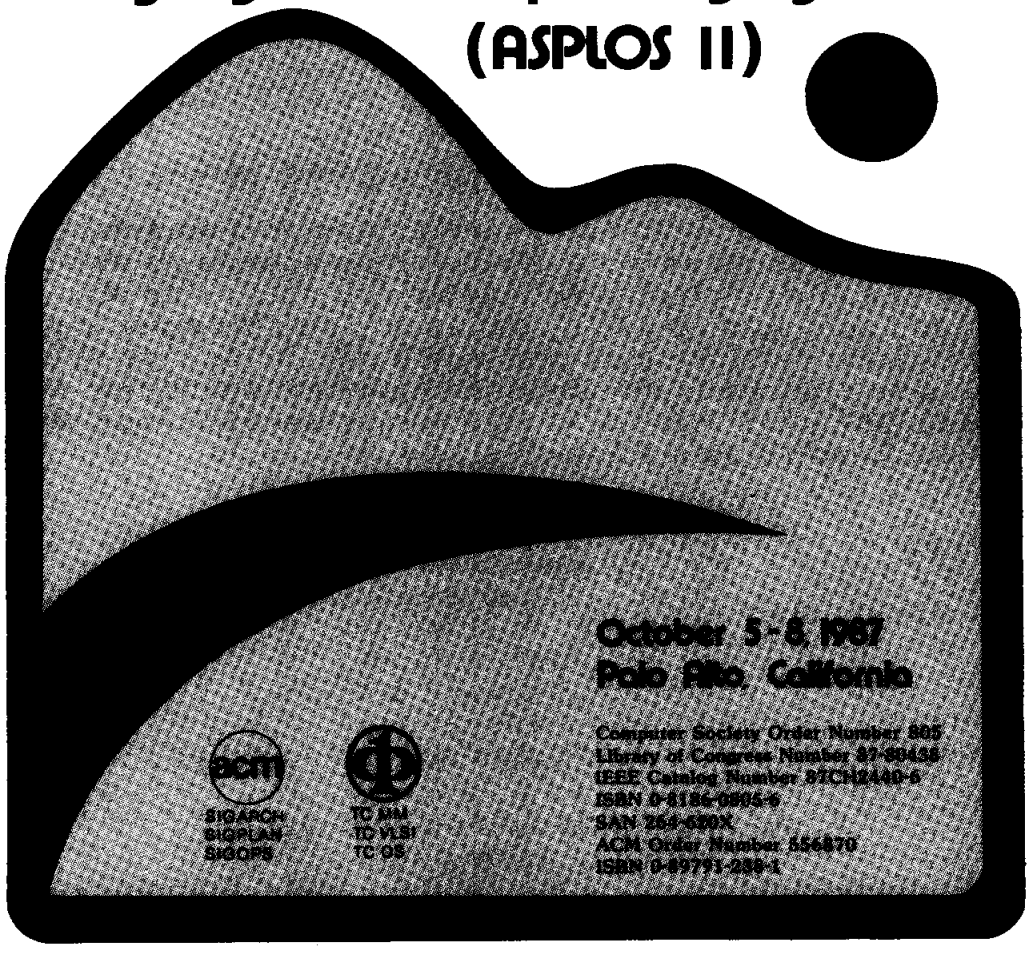

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FROM THE GENERAL CHAIRMAN

The Second International Conference on Architectural Support for Programming Languages and Operating Systems is a reprise of a highly successful symposium given in March 1982. Since then, the field encompassed by the conference has broadened enough to allow for a continuing series of conferences of the same high quality and lasting interest. While it is always difficult to equal a highly successful, well-received conference, Randy Katz, heading an excellent program committee, has assembled a strong program that rivals, and perhaps exceeds, the original.

One of the important contributions of ASPLOS-I involved the understanding of the interrelationships of architecture, programming languages and operating systems as gained through simulation, analysis, and experience. This insight was typified by the RISC research emanating from IBM, Berkeley and Stanford. Consequently, one of the major aims of ASPLOS-II is to examine this work at the present time as a mature research area, and evaluate its impact --- the controversial "RISC vs CISC" question having been replaced with, perhaps, a more meaningful "RISC vs RISC" evaluation.

The initial inspiration and encouragement for ASPLOS-II came from Alan Smith. Amar Mukherjee was particularly helpful in securing conference sponsorship. The support and guidance of SIGARCH, SIGPLAN, SIGOPS, TCMM, TCVLSI and TCOS throughout the planning stages of this conference are also gratefully acknowledged. We were fortunate in being able to employ the best auspices of both the ACM and the Computer Society of the IEEE in bringing this conference to fruition. Thanks are given to Donna Baglio (ACM) and Lee Blue (Computer Society of the IEEE) for handling several of the especially challenging problems that were encountered in the process.

Special thanks are due to Dennis Reinhardt for handling the financial aspects of, and the local arrangements for, the conference, and to Jim Flournoy for handling conference publicity. Finally, thanks must be given to the people at the Center for Integrated Systems at Stanford University and the people at the Philips Research Laboratories at Signetics Corporation for their support in this endeavor.

Martin Freeman
Stanford University and
Philips/Signetics

FROM THE PROGRAM CHAIRMAN

It is indeed a great pleasure to introduce this volume of papers from the Second International Conference on Architectural Support for Programming Languages and Operating Systems. This conference is a reprise of the highly successful first symposium held five years ago. Many of the ideas first introduced at that time are now having an impact on commercial computer systems, and we hope that this edition will also have a significant affect on our discipline. It is expected that this will be the first in a continuing series of biennial conferences dedicated to the overlap of operating system, language, and architecture issues.

Despite abject fears that we would receive no papers (by the deadline, only a handful had arrived), in the end we received sixty five very high quality submissions. The program committee has selected twenty two of the very best for presentation at the conference. In addition, we have invited three special papers describing topical computer systems: DEC SRC's Firefly Multiprocessor Workstation, Pixar's Parallel Graphics Machines, and Xerox PARC's Dragon Multiprocessor. Nicklaus Wirth will present the keynote address, and his written comments are contained within these proceedings.

There are many people to thank for the success of this conference. First and foremost are the members of the program committee, and their colleagues (see the list of external referees), who spent many hours reading and evaluating the submissions. Each paper was reviewed by four different program committee members, leading to something like twenty papers for each of them to review. We thank them for their quick response and hard work. Special thanks are due to Martin Freeman, who as General Chairman shouldered most of the administrative burden of organizing the conference and getting it off the ground. The proceedings could never have been put together without the dedicated assistance of my secretary, Jennifer Brouhard.

Randy H. Katz
Program Chairman

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