

1989 ACM Seventeenth Annual Computer Science Conference



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Message from the Chairs

The 1989 ACM Seventeenth Annual Computer Science Conference provides an excellent environment for interactions between academic, corporate, and government computer and information science researchers, educators, administrators, and students to broaden the scope of their professional interest. The conference emphasizes current research issues through its keynote and invited speakers, tutorials, panels, refereed papers and abstracts.

This proceedings serves as a record of the refereed papers and research abstracts. It can in no way capture the important interactions in panel sessions, the reports of funding agencies, the tutorials, and the other special events. Activities such as the Turing Lecture, ACM Scholastic Programming Contest, and the Department Chair's program all add to the exciting professional environment. A special event this year is the computing history exhibit which blends the old and the new by presenting a UNIVAC I and advanced graphics stations in the same exhibit.

The focus of the conference is "Preparing for Computing in the 1990's", with specific theme days on Knowledge Based Systems, Parallel Computing, and Looking to the Fifth Generation. Papers on these and related topics were intensely refereed and approximately thirty-three percent were accepted and are presented in this volume. Abstracts of current research are also presented in this proceedings.

We would like to take this opportunity to thank the many volunteers who devoted much time to planning the conference. This effort included the cooperation of members of 5 SIG's and an IEEE TC, the members of the Computing Research Board, and representatives from industry in the local Louisville area. Their efforts resulted in a large and varied program with professional and social activities from early in the morning to late in the evening. We sincerely hope that attending the conference is a rewarding professional experience.

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