Message from the Conference Chairs

This book is a digest of papers presented at the 15th IEEE ASAP Conference, the 2004 International Conference on Application-Specific Systems, Architectures, and Processors, which was held at the Moody Gardens Resort on Galveston Island, Texas from 27 through 29 September 2004. This is the 15th in a series of conferences including:

- The International Conference on Systolic Arrays in San Diego, California in 1988 and Killarney, Ireland in 1989;

The content reflects the broad scope of the conference in its coverage of various levels of abstraction and integration in the design of special-purpose computing systems, with sessions on Applications, Arithmetic, Communication, Interfaces and Memory, Instruction Set Extensions, Microarchitecture, Compilers and Optimization, and Scheduling and Codesign. The conference received a number of high quality submissions. A total of 56 submissions were received of which 30 were accepted. Due to time constraints in the conference program, many quality papers could not be accepted. We are grateful to all of the authors who submitted papers to the conference.

We would like to thank the members of the Program Committee and the external reviewers for their careful evaluation of the papers submitted to the conference, and for their efforts in assembling such an excellent quality program. We would also like to thank the keynote speaker Phil Kuekes, and the special session organizers Wayne Luk, Oskar Mencer, and José Fortes for their contributions to emerging technology sessions in Reconfigurable Computing and Nanocomputing. Finally, we are grateful to Ben Ilegbodu for his help with administrative matters concerning the paper review site.

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