Message from the Program Chair

The 1994 CODES/CASHE workshop is a worldwide workshop focusing on hardware-software co-design. This workshop is the union of two earlier workshop series: one held in Europe, the other in the U.S. Since the two workshops were started at almost exactly the same time, it made sense to combine these efforts into a single event. Judging from the quality of the papers presented here, that initiative has been a great success.

Hardware-software co-design is related to a number of existing fields, including VLSI CAD, real-time computing, distributed system design, and software engineering. The aspect of system design unique to co-design is the simultaneous design of both hardware and software to implement a desired function. System design is hard enough when either the hardware or software are relatively fixed; when both can be changed to meet some design goal, then proper modeling, efficient synthesis, and powerful verification are essential.

Co-design is still a very new field and researchers in this area have rapidly evolving interests. The technical program represents several important trends in co-design research:

• use of design case studies to drive research;
• algorithms for hardware-software partitioning;
• algorithms for system verification and validation;
• a continuing interest in design representations.

The papers presented here serve as a snapshot of the evolution of the co-design field. In addition, this proceedings is an excellent way to convey the state of the art to researchers who were unable to make it to the Grenoble workshop.

We received 43 submissions from three continents, which represented a substantial number of papers. The program committee selected 28 papers to be presented at the workshop and published in the proceedings. In addition, the program committee selected seven papers to be presented at the workshop in a poster session. It is unfortunate that we didn’t have time in the two-day program to accommodate all the submissions.

I would like to thank the Program Committee for their valiant reviewing efforts. Not only did they read a large number of papers in a short amount of time, they also provided voluminous comments to the authors. I would also like to thank the General Chair, Organizer, and U.S. Chair for their efforts in creating an excellent workshop. Thanks also go to the session chairs and, of course, to everyone who gave presentations and posters at the workshop, for contributing their knowledge and enthusiasm to make this workshop a success.

Wayne Wolf
Program Chair