This is the thirteenth edition of the Heterogeneous Computing Workshop. The response to the call for papers was excellent: we received 38 submissions from 12 countries.

All submitted papers were distributed to three members of the Program Committee for evaluation. The PC members either reviewed the papers themselves, or solicited external reviewers. The reviewing process went very smoothly, and almost all reviews were returned. The final decisions of acceptance/rejection were based upon the reviews, and taken after an e-mail discussion among the PC members. During the discussion phase, a few additional reviews were provided for papers with conflicting reviews.

The overall result of the evaluation process was the following: 18 papers were accepted, leading to an acceptance rate of only 47%. We congratulate the authors of accepted papers, and we regret that many quality papers could not be accepted, due to time limitations in the program.

The presentation of the accepted papers is organized in five sessions: (i) Resource management; (ii) Scheduling; (iii) Application performance; (iv) Middleware; and (v) Algorithms and models. Altogether, the papers cover a broad spectrum of topics. Since the early years of HCW in the 1990s, heterogeneity has become even more important to computer scientists and application programmers. It now plays a key role in distributed architectures, and its impact is likely to grow even further. HCW was, is, and we hope will remain, the perfect forum to discus the latest trends, concepts, results, and software prototypes related, in the broad sense, to the heterogeneous aspects of computing.

In addition to the accepted papers, the proceedings include the keynote presentation by Karsten Schwan, and I thank him both for accepting our invitation to be a keynote speaker and for contributing to the proceedings. I would like to thank all the authors for submitting their work to HCW 2004. I am also very grateful to all the PC members for their efforts in reviewing the manuscripts. The General Chair, Viktor Prasanna, and the Steering Committee Chair, H.J. Siegel, provided invaluable help and guidance throughout the organization of the workshop, and I thank them wholeheartedly.

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