Foreword

It is a pleasure to present the Proceedings of the 47th IEEE Foundations of Computer Science conference, which aims to showcase the most significant advances in theoretical computer science from around the world.

The conference received 240 submissions, of which 71 were accepted to appear in the proceedings. The submissions were discussed electronically and also reviewed by outside experts. The program committee then met in Princeton, NJ on June 10 and 11, 2006 to make the final selection. The 10-page abstracts appearing in these proceedings should be viewed as reports of ongoing research. We expect that complete and polished forms of these abstracts will later appear in scientific journals.

From among many outstanding research contributions, the committee selected “Settling the Complexity of 2-Player Nash-Equilibrium” by Xi Chen and Xiaotie Deng for a best paper award. The Machtey award for best student paper was given to “Algebraic Structures and Algorithms for Matching and Matroid Problems” by Nicholas J.A. Harvey.

The committee also invited Richard Karp of ICSI and UC Berkeley, Jon Kleinberg of Cornell University, and Terry Sejnowski of the Salk Institute to give 1-hour plenary talks at the conference.

The organization of this conference depends upon the efforts of a large number of people. First, I thank the members of the program committee for the enormous amount of work they put into the reviewing process. Thanks also to the large number of external reviewers who contributed expert opinions on individual papers. I regret if, despite our best efforts, the names of some of them are missing from our list.

I would also like to thank Joe Kilian for his invaluable help with the review software and the conference web page, Moses Charikar for his help and advice at many points, and Satish Rao for making the local arrangements at Berkeley. Past conference chairs Ron Fagin, Madhu Sudan, and especially Jon Kleinberg, provided timely advice and insight at several points, as did the IEEE Technical Committee, especially Paul Beame and chair Andrei Broder. I would also like to thank Mitra Kelly for helping organize the committee meeting; Bob Werner of the IEEE Conference Publishing Services for the production of these proceedings, and our 2006 conference sponsor IBM for their generous contribution.

Finally, I would like to thank the worldwide research community in theoretical computer science: their papers here serve as a powerful reminder of the scope, breadth and relevance of this field today.

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