10th Innovations in Theoretical Computer Science

ITCS 2019, January 10-12, 2019, San Diego, CA, USA

Edited by

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Preface

The papers in this volume were presented at the 10th Innovations in Theoretical Computer Science (ITCS 2019) conference. The conference was held at UC San Diego in San Diego, CA, USA, January 10-12, 2019, and co-located with SODA 2019. ITCS seeks to promote research that carries a strong conceptual message, for instance, introducing a new concept or model, opening a new line of inquiry within traditional or cross-interdisciplinary areas, introducing new techniques, or making novel connections between existing areas and ideas. The conference format is single-session and aims to promote the exchange of ideas between different areas of theoretical computer science and with other disciplines. The call for papers welcomed all submissions, whether aligned with current theory of computation research directions or deviating from them. A record 202 submissions were received. Of these, the program committee selected 66 papers. I would like to thank the authors of all submissions, whether accepted or not, for their interest in ITCS.

The program committee consisted of 39 members (plus the chair): Scott Aaronson, UT Austin; Eric Blais, Waterloo; Jeremiah Blocki, Purdue; Simina Branzei, Purdue; Bernard Chazelle, Princeton University; Amit Daniely, Hebrew University; Sanjoy Dasgupta, UC San Diego; Zeev Dvir, Princeton University; Uriel Feige, Weizmann; Michal Feldman, Tel-Aviv University; Rong Ge, Duke; Venkatesan Guruswami, CMU; Moritz Hardt, UC Berkeley; Russell Impagliazzo, UC San Diego; Brendan Juba, Washington University St Louis; Varun Kanade, University of Oxford; Eyal Kushilevitz, Technion; Yingyu Liang, University of Wisconsin - Madison; Shachar Lovett, UC San Diego; Sepideh Mahabadi, TTIC; Yishay Mansour, Tel-Aviv University; Rafael Pass, Cornell University; Sofya Raskhodnikova, Boston University; Dana Ron, Tel-Aviv University; Ron Rothblum, Technion; Aviad Rubinstein, Stanford University; Aaron Sidford, Stanford University; Yaron Singer, Harvard University; Mohit Singh, Georgia Tech; Adam Smith, Boston University; Jacob Steinhardt, UC Berkeley; Madhur Tulsiani, TTIC; Vinod Vaikuntanathan, MIT; Thomas Vidick, Caltech; Matt Weinberg, Princeton University; Ryan Williams, MIT; Mary Wootters, Stanford University; Mihalis Yannakakis, Columbia University; Shengyu Zhang, CUHK and Tencent. I wish to express my heartfelt thanks to them for agreeing to join the committee as well as for investing a great deal of time and effort to evaluate the submissions. I am also grateful to the many subreviewers who assisted with the reviewing process. The local organizer was Shachar Lovett from UC San Diego. I would like to thank him very much for his service. I'm also grateful to Umesh Vazirani, chair of the ITCS Steering Committee, and to Thomas Vidick, who helped with the website among other things. Finally, I would like to thank all the presenters and the audience at ITCS for making ITCS a wonderful experience.

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