43rd IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science

FSTTCS 2023, December 18–20, 2023, IIIT Hyderabad, Telangana, India

Edited by

Patricia Bouyer
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Preface

This volume contains the proceedings of the 43rd IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS 2023). The conference was held during the period December 18 – 20, 2023 on the campus of IIIT Hyderabad in Hyderabad, India. The conference was held as an in-person event.

The conference has two tracks: Track A focusing on algorithms, complexity and related issues, and Track B focusing on logic, automata and other formal method aspects of computer science. Each track had its own Program Committee (PC) and chair (Srikanth Srinivasan for Track A and Patricia Bouyer for Track B). This volume constitutes the joint proceedings of the two tracks, published in the LIPIcs series under a Creative Commons license, with free online access for all.

The conference comprised of 5 invited talks, 21 contributed talks in Track A, and 17 in Track B. This volume contains all the contributed papers from the two tracks, short abstracts of four of the invited talks as well as a longer paper accompanying one of the invited talks. We thank all the authors who submitted their papers to FSTTCS 2023. We are especially grateful to the PC members for their tireless work, and all the external reviewers for their expert opinion in the form of timely reviews.

We thank all the invited speakers for accepting our invitation: Thomas Brihaye (Université de Mons), Prasad Raghavendra (University of California at Berkeley), Leonard Schulman (California Institute of Technology), Sharon Shoham (Tel Aviv University), and Nisheeth Vishnoi (Yale University).

The main conference was accompanied by three workshops: Algorithmic Frontiers of Fairness (held on December 16 and 17, 2023 and organized by Siddharth Barman, Umang Bhaskar and Sujit Gujar), Research Highlights in Programming Languages (held during the period December 18-20, 2023 and organized by Deepak D'Souza, Uday Khedker, Kumar Madhukar, Kartik Nagar, Ganesan Ramalingam, Aseem Rastogi, Abhik Roychoudhury and Abhisekh Sankaran), and Spectral methods in Algorithms (held on December 21 and 22, 2023 and organized by Akash Kumar, Anand Louis and Piyush Srivastava).

We are indebted to the organizing committee for making all the necessary arrangements for the conference: the co-chairs Suryajith Chillara and Girish Varma (IIIT Hyderabad), Siddhartha Das (IIIT Hyderabad), Gowtham R. Kurri (IIIT Hyderabad), Grace Nalini (Outreach department at IIIT Hyderabad), Chandrashekhar Sahasrabudhe (Persistent systems/ACM India), and Abhijat Vichare (ACM India).

We thank S.P. Suresh (CMI, Chennai) for maintaining the conference web page. We thank Michael Wagner and the friendly staff at Dagstuhl LIPICs for helping us put together the proceedings. Finally, we thank the members of the Steering Committee, especially Amit Kumar, and the PC Chairs from FSTTCS 2022 (Venkat Guruswami and Anuj Dawar), for providing pertinent information and valuable advice about various aspects of the conference.

Patricia Bouyer and Srikanth Srinivasan
October 2023

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