

# 44th IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science

FSTTCS 2024, December 16–18, 2024, Gandhinagar, Gujarat,  
India

Edited by

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## ■ Preface

This volume contains the proceedings of the 44th IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS 2024). The conference was held as an in-person event during the period December 16–18, 2024, on the campus of IIT Gandhinagar in Gujarat, India.

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 (Siddharth Barman for Track A and Slawomir Lasota 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 comprises of 6 invited talks, 21 contributed talks in Track A, and 11 contributed talks in Track B. This volume contains all the contributed papers from the two tracks, and two articles accompanying two of the invited talks. We thank all the authors who submitted their papers to FSTTCS 2024. 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: Pankaj K. Agarwal (Duke University), Suguman Bansal (Georgia Institute of Technology), Ioannis Caragiannis (Aarhus University), Dmitry Chistikov (University of Warwick), Uriel Feige (Weizmann Institute), Sebastian Siebertz (Universität Bremen).

The main conference was co-located with four workshops: Milestones and Motifs in the Theory of Proofs, Algebraic Computation, and Lower Bounds (organised by S. Akshay, Olaf Beyersdorff, Nutan Limaye, and Prajakta Nimbhorkar), Research Highlights in Programming Languages (organised by Madhukar Kumar, Divyesh Unadkat, and Abhisekh Sankaran), Automata and Games for Synthesis (organised by Sougata Bose and K.S. Thejaswini), and Workshop on Algorithmic Mechanism Design (organised by Umang Bhaskar and Meghana Nasre).

We are indebted to the organizing committee for making all the necessary arrangements for the conference: the chair Neeldhara Misra (IIT Gandhinagar), Abhishek Bichawat (IIT Gandhinagar), Bireswar Das (IIT Gandhinagar), Anirban Dasgupta (IIT Gandhinagar), Manoj Gupta (IIT Gandhinagar), Balagopal Komarath (IIT Gandhinagar), and Manisha Padala (IIT Gandhinagar); and to past organizers for knowledge transfer.

We thank S.P. Suresh (CMI, Chennai) for maintaining the conference web page. We are grateful to the friendly staff at Dagstuhl LIPICs for helping us put together the proceedings, in particular to Michael Didas and Michael Wagner. Finally, we thank the members of the Steering Committee, especially Amit Kumar, and the PC Chairs from FSTTCS 2023 (Patricia Bouyer and Srikanth Srinivasan), for providing pertinent information and valuable advice about various aspects of the conference.

Siddharth Barman and Slawomir Lasota  
October 2024





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