

42nd IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science

FSTTCS 2022, December 18–20, 2022, IIT Madras, Chennai,
India

Edited by

Anuj Dawar

Venkatesan Guruswami



Editors

Anuj Dawar 

University of Cambridge, UK
anuj.dawar@cl.cam.ac.uk

Venkatesan Guruswami 

University of California, Berkeley, USA
venkatg@berkeley.edu

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■ Preface

This volume contains the proceedings of the 42nd IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS 2022). The conference was held on December 18–21, 2022 on the campus of IIT Madras in Chennai, India. This was the first time in three years that it was possible for the conference to be held in person. Some participants were nonetheless able to participate remotely.

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 (Venkatesan Guruswami for Track A and Anuj Dawar for Track B). This volume constitutes the joint proceedings of the two tracks, published in the LIPIcs series under a Creative Common license, with free online access for all.

The conference comprised of 5 invited talks, 24 contributed talks in Track A, and 16 in Track B. This volume contains all the contributed papers from the two tracks, short abstracts of three 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 2022. 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: Patricia Bouyer-Decitre (CNRS and ENS Paris-Saclay), Irit Dinur (Weizmann Institute), Anupam Gupta (Carnegie Mellon University), Akash Lal (Microsoft Research), and Rahul Santhanam (University of Oxford).

The main conference was accompanied by three workshops or other colocated events: *Algorithms under Uncertainty* (organized by Anupam Gupta, Ravishankar Krishnaswamy, Amit Kumar and Debmalya Panigrahi), *Fine-grained Cryptography* (organized by Divesh Aggarwal, Huck Bennett, Alexander Golovnev, Rajendra Kumar and Noah Stephens-Davidowitz), and *SAT+SMT Winter School* (organized by Supratik Chakraborty, Ashutosh Gupta, Saurabh Joshi, Kumar Madhukar, Kuldeep S. Meel and Subodh Sharma).

We are indebted to the organizing committee members: Meghana Nasre (IIT Madras), Chandrashekhara Sahasrabudhe (ACM India, Member), and Jayalal Sarma (IIT Madras) so ably supported by members of the Theory Group and CCD group at IIT Madras. They made all the necessary arrangements for the conference. 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 2021 (Chandra Chekuri and Mikołaj Bojańczyk), for providing pertinent information and advice about various aspects of the conference.

Anuj Dawar and Venkatesan Guruswami
October 2022



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