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## Topics in Theoretical Computer Science

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► **To cite this version:**

Luis Barbosa, Mohammad Ali Abam. Topics in Theoretical Computer Science. Springer International Publishing, LNCS-12281, 2020, Lecture Notes in Computer Science, 978-3-030-57851-0. 10.1007/978-3-030-57852-7. hal-03165376

**HAL Id: hal-03165376**

**<https://inria.hal.science/hal-03165376v1>**

Submitted on 10 Mar 2021

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Luís S. Barbosa · Mohammad Ali Abam (Eds.)

# Topics in Theoretical Computer Science

Third IFIP WG 1.8 International Conference, TTCS 2020  
Tehran, Iran, July 1–2, 2020  
Proceedings

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ISSN 0302-9743

ISSN 1611-3349 (electronic)

Lecture Notes in Computer Science

ISBN 978-3-030-57851-0

ISBN 978-3-030-57852-7 (eBook)

<https://doi.org/10.1007/978-3-030-57852-7>

LNCS Sublibrary: SL1 – Theoretical Computer Science and General Issues

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# Preface

We are honored to bring you this collection of the revised selected papers from the third IFIP WG 1.8 International Conference on Topics in Theoretical Computer Science (TTCS 2020), which was held at the School of Computer Science, Institute for Research in Fundamental Sciences (IPM), Tehran, Iran, July 1–2, 2020.

TTCS is a bi-annual conference series, intending to serve as a forum for novel and high-quality research in all areas of Theoretical Computer Science. Two previous editions were held in 2015 and 2017, with proceedings also published by Springer in the *Lecture Notes in Computer Science* series, respectively as volumes 9541 and 10608. As before, the 2020 conference was held in cooperation with IFIP WG 1.8, on Foundations of Concurrency, and the European Association for Theoretical Computer Science.

TTCS 2020 received 24 submissions, which were carefully reviewed by the members of an International Program Committee comprising 45 leading scientists. At least three review reports were provided for each paper. After a participated final discussion inside the Program Committee eight papers were accepted, fixing the acceptance rate of the conference at approximately 34%.

Besides paper presentations, the program included two invited talks by the following world-renowned computer scientists:

- Filippo Bonchi, University of Pisa, Italy, on “Interacting Hopf Algebras: the theory of linear systems”
- Mohammad Taghi Hajiaghayi, University of Maryland, College Park, USA, on “Massively Parallel Algorithms and Applications for Maximal Matching and Edit Distance”

We would like to thank authors and invited speakers who contributed to the success of TTCS 2020. We are also grateful to all Program Committee members for their professional and hard work in providing expert review reports and thorough discussions leading to a very interesting and strong program. Last but not least, our gratitude extends to IPM for generously supporting the conference.

Due to the COVID-19 pandemic, TTCS 2020 was forced to run virtually, with live streaming of all talks and both synchronous and asynchronous interaction with participants. We acknowledge the excellent facilities provided by Sharif University of Technology, Iran, to hold the conference online.

July 2020

Luís S. Barbosa  
Mohammad Ali Abam

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