# **Communications** in Computer and Information Science

1352

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# Theoretical Computer Science

38th National Conference, NCTCS 2020 Nanning, China, November 13–15, 2020 Revised Selected Papers



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#### **Preface**

The National Conference of Theoretical Computer Science (NCTCS) is the main academic activity in the area of theoretical computer science in China. Up until 2020, NCTCS has been successfully held 37 times in over 20 cities. It provides a platform for researchers in the area of theoretical computer science or related areas for academic exchanges and possible cooperation.

This volume contains the papers presented at NCTCS 2020: The 38th National Conference of Theoretical Computer Science held during November 13–15, 2020, in Nanning, China. Sponsored by the China Computer Forum (CCF), NCTCS 2020 was hosted by the CCF Theoretical Computer Science Committee and Guangxi University.

NCTCS 2020 received 28 submissions (in English) in the areas of algorithms and complexity, theory or algorithm aspects for data science and deep learning, network communication, and security. Each of the 28 submissions was reviewed by at least three Program Committee members. The committee decided to accept 13 papers that are included in this Springer Communications in Computer and Information Science (CCIS) publication.

NCTCS 2020 invited prestigious researchers carrying out a wide range of academic activities in the field of theoretical computer science to give a keynote speech, and introduce their recent advanced research results. We had six invited plenary speakers at NCTCS 2020: Huimin LIN (Institute of Software, Chinese Academy of Sciences, China), Haimin WANG (National Defense University of Science and Technology, China), Wenfei YU (University of Edinburgh, UK), Xiaomin LI (Peking University, China), Zhiwei XU (Institute of Computing Technology, Chinese Academy of Sciences, China), and Lian LI (Hefei University of Technology, China). We express our sincere thanks to them for their contributions to the conference and proceedings.

The proceedings editors wish to thank the dedicated Program Committee members and external reviewers for their hard work in reviewing and selecting papers. We also thank Springer for their trust and for publishing the proceedings of NCTCS 2020.

December 2020 Kun He Cheng Zhong

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