# **Lecture Notes in Bioinformatics**

# 13064

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# Bioinformatics Research and Applications

17th International Symposium, ISBRA 2021 Shenzhen, China, November 26–28, 2021 Proceedings



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### **Preface**

On behalf of the Program Committee, we would like to welcome you to the proceedings of the 17th International Symposium on Bioinformatics Research and Applications (ISBRA 2021), held in Shenzhen, China, November 26–28, 2021. The symposium provides a forum for the exchange of ideas and results among researchers, developers, and practitioners working on all aspects of bioinformatics and computational biology and their applications.

This year, we received 135 submissions in response to the call for extended abstracts. The Program Committee decided to accept 51 of these for full publication in the proceedings; at the symposium a list of these contributions can be found in this front matter.

The technical program also featured keynote talks delivered by six distinguished speakers: Guoliang Chen, Academician of the Chinese Academy of Sciences, from Shenzhen University and Nanjing University of Posts and Telecommunications, China; Dongqing Wei from Shanghai Jiaotong University, China; Yixue Li from the Chinese Academy of Sciences, China; Bairong Shen from West China Hospital, Sichuan University, China; Shaoliang Peng from Hunan University and Xiaolong Xu from Nanjing University of Information Science and Technology, China.

We would like to thank the Program Committee members and the additional reviewers for volunteering their time to review and discuss symposium papers. We would like to extend special thanks to the steering and general chairs of the symposium for their leadership, and to the finance, publicity, workshops, local organization, and publications chairs for their hard work in making ISBRA 2021 a successful event. Last but not least, we would like to thank all authors for presenting their work at the symposium.

October 2021 Zhi

Zhipeng Cai Min Li Pavel Skums Yanjie Wei

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