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Preface

On behalf of the Conference Committee we welcome you to the proceedings of the 2021 International Conference on Algorithms and Architectures for Parallel Processing (ICA3PP 2021), which was held virtually during December 3–5, 2021. ICA3PP 2021 was the 21st in this series of conferences (started in 1995) that are devoted to algorithms and architectures for parallel processing. ICA3PP is now recognized as the main regular international event that covers the many dimensions of parallel algorithms and architectures, encompassing fundamental theoretical approaches, practical experimental projects, and commercial components and systems. This conference provides a forum for academics and practitioners from countries around the world to exchange ideas for improving the efficiency, performance, reliability, security, and interoperability of computing systems and applications.

A successful conference would not be possible without the high-quality contributions made by the authors. This year, ICA3PP received a total of 403 submissions from authors in 28 countries and regions. Based on rigorous peer reviews by the Program Committee members and reviewers, 145 high-quality papers were accepted to be included in the conference proceedings and submitted for EI indexing. In addition to the contributed papers, eight distinguished scholars, Yi Pan, Daqing Zhang, Yan Zhang, Shuai Ma, Weijia Jia, Keqiu Liu, Yang Yang, and Peng Cheng, were invited to give keynote lectures, providing us with the recent developments in diversified areas in algorithms and architectures for parallel processing and applications.

We would like to take this opportunity to express our sincere gratitude to the Program Committee members and 160 reviewers for their dedicated and professional service. We highly appreciate the six track chairs, Ding Wang, Songwen Pei, Zhiming Luo, Shigeng Zhang, Longbiao Chen, and Feng Wang, for their hard work in promoting this conference and organizing the reviews for the papers submitted to their tracks. We are so grateful to the publication chairs, Yang Wang, Carmen De Maio, Donglong Chen, and Yinglong Zhang, and the publication assistants for their tedious work in editing the conference proceedings. We must also say “thank you” to all the volunteers who helped us in various stages of this conference. Moreover, we are so honored to have many renowned scholars be part of this conference. Finally, we would like to thank all speakers, authors, and participants for their great contribution and support to make ICA3PP 2021 a success!

December 2021

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