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Meikang Qiu (Ed.)

Algorithms and Architectures for Parallel Processing

20th International Conference, ICA3PP 2020 New York City, NY, USA, October 2–4, 2020 Proceedings, Part I

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Preface

This three-volume set contains the papers presented at the 20th International Conference on Algorithms and Architectures for Parallel Processing (ICA3PP 2020), held during October 2–4, 2020, in New York, USA.

There were 495 submissions. Each submission was reviewed by at least 3 reviewers, and on the average 3.5 Program Committee members. The committee decided to accept 147 papers. We will separate the proceeding into three volumes: LNCS 12452, 12453, and 12454. Yielding an acceptance rate of 29%.

ICA3PP 2020 was the 20th 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 event of the world that is covering the many dimensions of parallel algorithms and architectures, encompassing fundamental theoretical approaches, practical experimental projects, and commercial components and systems. As applications of computing systems have permeated in every aspect of daily life, the power of computing systems has become increasingly critical. 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.

Following the traditions of the previous successful ICA3PP conferences held in Hangzhou, Brisbane, Singapore, Melbourne, Hong Kong, Beijing, Cyprus, Taipei, Busan, Melbourne, Fukuoka, Vietri sul Mare, Dalian, Japan, Zhangjiajie, Granada, Helsinki, Guangzhou, and Melbourne, ICA3PP 2020 was held in New York, USA. The objective of ICA3PP 2020 is to bring together researchers and practitioners from academia, industry, and governments to advance the theories and technologies in parallel and distributed computing. ICA3PP 2020 will focus on three broad areas of parallel and distributed computing, i.e., Parallel Architectures and Algorithms (PAA), Parallel computing with AI and Big Data (PAB), and Parallel computing with Cyberseucrity and Blockchain (PCB).

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