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Network and Parallel Computing

16th IFIP WG 10.3 International Conference, NPC 2019
Hohhot, China, August 23–24, 2019
Proceedings

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Preface

These proceedings contain the papers presented at the 2019 IFIP International Conference on Network and Parallel Computing (NPC 2019), held in Hohhot, Inner Mongolia, China, from August 23–24, 2019. The goal of the conference is to establish an international forum for engineers and scientists to present their ideas and experiences in network and parallel computing.

A total of 107 submissions were received in response to our call for papers. These papers originate from Australia, Asia (China, Japan), Europe, and North America (USA). Each submission was sent to at least three reviewers. Each paper was judged according to its originality, innovation, readability, and relevance to the expected audience. Based on the reviews received, 36 full papers (about 33%), including 8 papers published as Special Issue papers of the *International Journal of Parallel Programming*, 5 papers published as Special Issue papers of Tsinghua Science and Technology, and 23 papers published as LNCS proceedings were retained. A number of strong papers that could not be accepted to the full-paper track were considered for the short-paper tracks. Finally, we selected 14 short papers. These papers cover traditional areas of network and parallel computing, including parallel applications, distributed algorithms, parallel architectures, software environments, and distributed tools.

We share the view that, during the past decade, the tools and cultures of high-performance computing and big data analytics are diverging to the detriment of both, and the international community should find a unified path that can best serve the need of a broad spectrum of major application areas. Unlike other tools, which are limited to particular scientific domains, computational modeling and data analytics are applicable to all areas of science and engineering, as they breathe life into the underlying mathematics of scientific models.

We sincerely appreciate the work and effort of the authors in preparing their submissions for review, and addressing the reviewers' comments before submitting the camera-ready copies of their accepted papers, and attending the conference to present and discuss their work. We also want to thank every member of the NPC 2019 Organizing Committee and Steering Committee for their help in putting together such an exciting program. Finally, we thank all the attendees.

August 2019

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