Lecture Notes in Computer Science 12321

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High Performance Computing

ISC High Performance 2020 International Workshops
Frankfurt, Germany, June 21–25, 2020
Revised Selected Papers

Springer

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ISSN 0302-9743 ISSN 1611-3349 (electronic)
Lecture Notes in Computer Science
ISBN 978-3-030-59850-1 ISBN 978-3-030-59851-8 (eBook)
https://doi.org/10.1007/978-3-030-59851-8

LNCS Sublibrary: SL1 – Theoretical Computer Science and General Issues

This Springer imprint is published by the registered company Springer Nature Switzerland AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Preface

Without a doubt, 2020 has been a different kind of year for all of us, and so it was for the 35th ISC High Performance conference, which became known as ISC 2020 Digital. As the name suggests, the organizing team around David Keyes (KAUST, Saudi Arabia) successfully adapted the conference to an all-digital format by providing a significant portion of the program via web conferencing. While we should not forget the importance of in-person interaction and socializing, the video streaming of the accepted papers, focus sessions, and invited talks enabled unprecedented access and dissemination of new research findings for the high-performance computing community.

The ISC High Performance workshop series has been a complementary component of the main conference since 2015, and – sustained by its continued success – a renewed workshop program was presented at the ISC 2020 Digital event under the leadership of workshops chair Heike Jagode (The University of Tennessee at Knoxville, USA) and deputy chair Hartwig Anzt (Karlsruhe Institute of Technology, Germany). Guido Juckeland (Helmholtz-Zentrum Dresden-Rossendorf, Germany) and Hatem Ltaief (KAUST, Saudi Arabia) joined the team as proceedings chair and deputy chair, respectively, and managed the organization of the workshops' proceedings.

All workshops were selected with a peer-review process by an international committee of 21 experts in the field from all over Europe, the USA, and Asia. For the digital version of the conference, we offered all of the accepted workshops the flexibility to postpone their workshop to ISC 2021 and run a virtual workshop in the ISC 2020 edition. In the end, 10 of the 23 accepted workshops decided to organize a virtual version of their event, which we greatly appreciate given the extra effort put forth by everyone involved.

Like in the 2019 edition, the ISC workshops were composed of two types of workshops: workshops with proceedings (early deadline) and workshops without proceedings (later deadline). While we had 16 workshops with proceedings accepted, only 7 out of those decided to offer a digital version this year. Given all of these challenges, the quality of this year's ISC workshops proceedings is impressive. In total, we have 25 high-quality papers that all underwent thorough reviews. Each chapter of the book contains the accepted and revised papers for one of the workshops. For some workshops, an additional preface describes the review process and provides a summary of the outcome.

With the hope that, perhaps next year, we will be able to once again host ISC High Performance in person, we want to thank our Workshops Committee members, organizers of workshops, and all contributors. We are proud to present the latest findings on

topics related to research, development, and the application of large-scale, high-performance systems.

August 2020

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Hartwig Anzt
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Organization

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Contents

15th Workshop on Virtualization in High-Performance Cloud Computing (VHPC'20)