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# High Performance Computing

7th Latin American Conference, CARLA 2020  
Cuenca, Ecuador, September 2–4, 2020  
Revised Selected Papers



Springer

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## Preface

This CCIS volume presents selected articles from the 7th edition of the Latin American High Performance Computing Conference (CARLA 2020), which was held on September 2–4, 2020 in Cuenca, Ecuador. Due to the COVID-19 pandemic, CARLA 2020 was held in a virtual format. This event continues the previous conferences held in South America (HPCLATAM) and Mesoamerica (CLCAR), for a total number of 12 conference editions since 2008.

The main goal of the CARLA 2020 Conference was to provide a unified scientific platform for researchers, scientists, teachers, postgraduate students and practitioners from different countries in Latin America and worldwide to share their current findings in various areas of High Performance Computing and Artificial Intelligence. The articles in this volume address these two relevant topics, covering several areas of research and applications.

The main program consisted of seven keynote talks, fourteen oral presentations and four poster presentations from international speakers highlighting recent developments in each of the areas. Over two hundred distinguished participants from 26 countries gathered virtually for this conference. The Program Committee of CARLA 2020 received 35 manuscripts, and 14 submissions were accepted, taking into account the comments by reviewers. All papers included in these CCIS proceedings have undergone careful peer review by three subject-matter experts before being selected for publication.

We would like to express our deep gratitude to all the contributors of CARLA 2020, the Conference Chairs and CEDIA (Ecuadorian Corporation for the Development of Research and Academia) who helped in many ways to organize the conference, and also to the authors and reviewers for their endeavors that made it possible to efficiently review and publish the papers. We also thank the participants of the conference, our industry sponsors and the readers of the proceedings.

October 2020

Harold Castro  
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Andrei Tchernykh

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