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Learning and Intelligent Optimization

15th International Conference, LION 15
Athens, Greece, June 20–25, 2021
Revised Selected Papers

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Guest Editorial

The fifteenth installment of the conference series “Learning and Intelligent Optimization” (LION 15) was scheduled to be held in Athens, Greece, during June 20–25, 2021, but regrettably it was canceled, due to travel restrictions imposed world-wide by the COVID-19 pandemic. However, we were fully prepared to convert the event into an all-digital conference experience. Moreover, we felt it was important to publish the proceedings of the conference, in order to minimize the disruption to the participant’s careers and especially the potentially devastating negative effects in the careers of PhD students, post-doctoral fellows, and young scholars. An additional reason for us to undertake the publication of these LNCS proceedings, was to ensure the continuity of the LION conference series.

LION 15 featured five invited speakers:

- “ B_k – VPG Graphs – the String Graphs of Paths on a Grid”, plenary talk given by Martin Charles Golumbic (University of Haifa, Israel)
- “Communication and Mobility in Optimization for Infrastructure Resilience”, plenary talk given by Evangelos Kranakis (Carleton University, Canada)
- “Temporal Networks and the Impact of Availability Patterns”, plenary talk given by Paul Spirakis (University of Liverpool, UK, and University of Patras, Greece)
- “Combinatorial Difference Methods in AI”, tutorial talk given by Rick Kuhn (NIST, USA)
- “On the Use of Ontologies for Automated Test Suite Generation”, tutorial talk given by Franz Wotawa (Graz University of Technology, Austria)

We would like to thank the authors for contributing their work and the reviewers whose tireless efforts resulted in keeping the quality of the contributions at the highest standards. The volume contains 30 refereed papers carefully selected out of 48 total submissions, thus LION 15 bears an overall acceptance rate of 62%.

The editors express their gratitude to the organizers and sponsors of the LION 15 international conference:

- MATRIS Research Group, SBA Research, Austria
- Laboratory of Algorithms and Technologies for Networks Analysis (LATNA), Higher School of Economics (HSE), Nizhny Novgorod, Russia
- CARGO Lab, Wilfrid Laurier University, Canada,
- APM Institute for the Advancement of Physics and Mathematics.

A special thank you goes to the Strategic Innovation and Communication Team at SBA Research (Nicolas Petri and Yvonne Poul) for sponsoring the virtual infrastructure of the conference, as well as the LION 15 volunteers (junior and senior researchers of the MATRIS Research Group at SBA Research) who made sure that the virtual technical sessions could be carried out flawlessly.

Even though organization of all physical conferences is still on hiatus, we are very pleased to be able to deliver this LNCS proceedings volume for LION 15, in keeping with the tradition of the most recent LION conferences [1, 2] and [3]. We sincerely hope we will be able to reconnect with the members of the vibrant LION community next year.

October 2021

Dimitris E. Simos
Panos M. Pardalos
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