

Dimitris E. Simos
Panos M. Pardalos
Ilias S. Kotsireas (Eds.)

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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
Ilias S. Kotsireas

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Contents

An Optimization for Convolutional Network Layers Using the Viola-Jones Framework and Ternary Weight Networks	1
<i>Rhys Agombar, Christian Bauckhage, Max Luebbing, and Rafet Sifa</i>	
Learning to Optimize Black-Box Functions with Extreme Limits on the Number of Function Evaluations	7
<i>Carlos Ansótegui, Meinolf Sellmann, Tapan Shah, and Kevin Tierney</i>	
Graph Diffusion & PCA Framework for Semi-supervised Learning	25
<i>Konstantin Avrachenkov, Aurélie Boisbunon, and Mikhail Kamalov</i>	
Exact Counting and Sampling of Optima for the Knapsack Problem	40
<i>Jakob Bossek, Aneta Neumann, and Frank Neumann</i>	
Modeling of Crisis Periods in Stock Markets	55
<i>Apostolos Chalkis, Emmanouil Christoforou, Theodore Dalamagas, and Ioannis Z. Emiris</i>	
Feature Selection in Single-Cell RNA-seq Data via a Genetic Algorithm	66
<i>Konstantinos I. Chatzilygeroudis, Aristidis G. Vrahatis, Sotiris K. Tasoulis, and Michael N. Vrahatis</i>	
Towards Complex Scenario Instances for the Urban Transit Routing Problem	80
<i>Roberto Díaz Urra, Carlos Castro, and Nicolás Gálvez Ramírez</i>	
Spirometry-Based Airways Disease Simulation and Recognition Using Machine Learning Approaches	98
<i>Riccardo Di Dio, André Galligo, Angelos Mantzaflaris, and Benjamin Mauroy</i>	
Long-Term Hypertension Risk Prediction with ML Techniques in ELSA Database	113
<i>Elias Dritsas, Nikos Fazakis, Otilia Kocsis, Nikos Fakotakis, and Konstantinos Moustakas</i>	
An Efficient Heuristic for Passenger Bus VRP with Preferences and Tradeoffs	121
<i>Suhendry Effendy, Bao Chau Ngo, and Roland H. C. Yap</i>	

Algorithm for Predicting the Quality of the Product Based on Technological Pyramids in Graphs	128
<i>Damir N. Gainanov, Dmitriy A. Berenov, and Varvara A. Rasskazova</i>	
Set Team Orienteering Problem with Time Windows	142
<i>Aldy Gunawan, Vincent F. Yu, Andro Nicus Sutanto, and Panca Jodiawan</i>	
Reparameterization of Computational Chemistry Force Fields Using GloMPO (Globally Managed Parallel Optimization)	150
<i>Michael Freitas Gustavo and Toon Verstraelen</i>	
Towards Structural Hyperparameter Search in Kernel Minimum Enclosing Balls	157
<i>Hanna Kondratiuk and Rafet Sifa</i>	
Using Past Experience for Configuration of Gaussian Processes in Black-Box Optimization	167
<i>Jan Koza, Jiří Tumpach, Zbyněk Pitra, and Martin Holeňa</i>	
Travel Demand Estimation in a Multi-subnet Urban Road Network	183
<i>Alexander Krylatov and Anastasiya Raevskaya</i>	
The Shortest Simple Path Problem with a Fixed Number of Must-Pass Nodes: A Problem-Specific Branch-and-Bound Algorithm	198
<i>Andrei Kudriavtsev, Daniel Khachay, Yuri Ogorodnikov, Jie Ren, Sheng Cheng Shao, Dong Zhang, and Michael Khachay</i>	
Medical Staff Scheduling Problem in Chinese Mobile Cabin Hospitals During Covid-19 Outbreak	211
<i>Shaowen Lan, Wenjuan Fan, Kaining Shao, Shanlin Yang, and Panos M. Pardalos</i>	
Performance Evaluation of Adversarial Attacks on Whole-Graph Embedding Models	219
<i>Mario Manzo, Maurizio Giordano, Lucia Maddalena, and Mario R. Guarracino</i>	
Algorithm Selection on Adaptive Operator Selection: A Case Study on Genetic Algorithms	237
<i>Mustafa Mısıř</i>	
Inverse Free Universum Twin Support Vector Machine	252
<i>Hossein Moosaei and Milan Hladík</i>	

Hybridising Self-Organising Maps with Genetic Algorithms 265
Abtin Nourmohammadzadeh and Stefan Voß

How to Trust Generative Probabilistic Models for Time-Series Data? 283
Nico Piatkowski, Peter N. Posch, and Miguel Krause

Multi-channel Conflict-Free Square Grid Aggregation 299
Roman Plotnikov and Adil Erzin

Optimal Sensor Placement by Distribution Based Multiobjective
 Evolutionary Optimization 315
Andrea Ponti, Antonio Candelieri, and Francesco Archetti

Multi-objective Parameter Tuning with Dynamic Compositional Surrogate
 Models 333
Dmytro Pukhkaiev, Oleksandr Husak, Sebastian Götz, and Uwe Aßmann

Corrected Formulations for the Traveling Car Renter Problem 351
*Brenner Humberto Ojeda Rios, Junior Cupe Casquina,
 Hossmell Hernan Velasco Añasco, and Alfredo Paz-Valderrama*

Hybrid Meta-heuristics for the Traveling Car Renter Salesman Problem 364
*Brenner Humberto Ojeda Rios, Junior Cupe Casquina,
 Hossmell Hernan Velasco Añasco, and Alfredo Paz-Valderrama*

HybridTuner: Tuning with Hybrid Derivative-Free Optimization
 Initialization Strategies 379
Benjamin Sauk and Nikolaos V. Sahinidis

Sensitivity Analysis on Constraints of Combinatorial Optimization
 Problems 394
Julian Schulte and Volker Nissen

Author Index 409