



# World Congress on Global Optimization 2023

## Conference Program July 10-14, 2023

Hosted by the International Society of Global Optimization

<http://www.globaloptimization.org/>

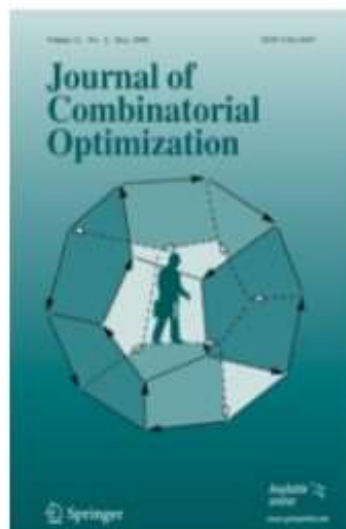


13/09/1873

02/02/1950

Celebrating the 150<sup>th</sup> anniversary from the birth of  
**Constantin Carathéodory**

WORLD CONGRESS ON GLOBAL OPTIMIZATION | WCGO 2023 | ATHENS GREECE



Aikaterini Laskaridis Foundation

<http://www.laskaridisfoundation.org/en/>

# Monday, July 10, 2023

9:30 a.m. 10:00 a.m.	Opening Remarks: WCGO 2023 General Chair: Panos M. Pardalos, President, International Society of Global Optimization
10:00 a.m. 10:30 a.m.	<b>Francesco Carciaghi, Pierluigi Mansueto and Fabio Schoen</b> Bayesian Optimization through a Bi-Objective Acquisition Function
10:30 a.m. 11:00 a.m.	<b>Yi Zhang and Nikolaos V. Sahinidis</b> Eliminating dominated variables in general mixed-integer nonlinear programming
11:00 a.m. 11:30 a.m.	<b>Break</b>
11:30 a.m. 12:00 noon	<b>Mindaugas Kepalas and Julius Žilinskas</b> 2-Dimensional Net-Constrained Clustering Problem
12:00 noon 12:30 p.m.	<b>Andrea Ponti</b> Graph data augmentation with Gromow-Wasserstein Barycenters
12:30 p.m. 14:00 p.m.	<b>Lunch Break</b>
14:00 p.m. 14:30 p.m.	<b>Styliani Avraamidou and Efstratios Pistikopoulos</b> A global optimization algorithm for the solution of multi-level mixed-integer programming problems
14:30 p.m. 15:00 p.m.	<b>Maxim Sakharov and Kamila Koledina</b> Novel Memetic Algorithm for Optimal Control of Hydrogenation of the Aromatic Hydrocarbons

## Tuesday, July 11, 2023

9:30 a.m. 10:00 a.m.	<b>Pierre van Mouche</b> Oligopolies with biconcave price functions and at zero discontinuous industry revenue
10:00 a.m. 10:30 a.m.	<b>Wissam Al-Kendi, Stéphane Chrétien and Christophe Guyeux</b> Using the Alternating Direction of Multipliers Method for the shortest vector in a lattice
10:30 a.m. 11:00 a.m.	<b>Anatolii Kosolap</b> The computational efficiency of the global optimization methods
11:00 a.m. 11:30 a.m.	<b>Break</b>
11:30 a.m. 12:00 noon	<b>Humberto Rocha and Joana Dias</b> Hybrid probabilistic/deterministic direct-search approaches: application to beam angle optimization in radiation therapy
12:00 noon 12:30 p.m.	<b>Xenophon Moussas</b> Antikythera mechanism, the first programmed computer to predict astronomical phenomena and the weather
12:30 p.m. 14:00 p.m.	<b>Lunch Break</b>
14:00 p.m. 14:30 p.m.	<b>Suryateja Ravutla and Fani Boukouvala</b> Data-Driven Lipschitz-Informed Convex Underestimators for Branch-And-Bound Optimization of Black-Box Functions
14:30 p.m. 15:00 p.m.	<b>Chaoming Hu, Xinbao Liu, Rui Zheng, Shaojun Lu and Panos M Pardalos</b> Parallel machine scheduling with position-dependent processing times and deteriorating maintenance activities
15:00 p.m. 15:30 p.m.	<b>Vladimir Norkin and Georg Pflug</b> Calculation of Transformation-Based Figures Similarity Measures by Lipschitz Global Nonsmooth Optimization Methods
15:30 p.m. 16:00 p.m.	<b>Break</b>
16:00 p.m. 16:30 p.m.	<b>Liudmyla Kolietchkina, Olena Dvirna and Serhii Khovben</b> The algorithm for solving a multiobjective optimization problem
16:30 p.m. 17:00 p.m.	<b>Vivek Laha and Prashant Jaiswal</b> On quasidifferentiable mathematical programs with vanishing constraints in Banach spaces

## Wednesday, July 12, 2023

9:30 a.m. 10:00 a.m.	<b>Luis Nunes Vicente</b> Bilevel optimization with a multi-objective lower-level problem: Risk-neutral and risk-averse formulations
10:00 a.m. 10:30 a.m.	<b>Marina A. Matos, Ana Maria A. C. Rocha, Lino Costa and Filipe Alvelos</b> Optimization of firefighting resources
10:30 a.m. 11:00 a.m.	<b>Pietro Belotti, Timo Berthold, Zsolt Csizmadia, Tristan Gally, Leona Gottwald and Imre Pólik</b> FICO Xpress Global: MIP solver + local NLP solver = global MINLP solver
11:00 a.m. 11:30 a.m.	<b>Break</b>
11:30 a.m. 12:00 noon	<b>Francesco Archetti, Andrea Ponti and Antonio Candelieri</b> Ethical Bayesian Optimization: bringing the humans back in the loop
12:00 noon 12:30 p.m.	<b>Miltiades Pardalos, Mykyta Makovenko, and Sergiy Butenko</b> A Hierarchy of Nonconvex Continuous Reformulations for Discrete Optimization
12:30 p.m. 14:00 p.m.	<b>Lunch Break</b>
14:00 p.m. 14:30 p.m.	<b>Antonio Candelieri, Andrea Ponti and Francesco Archetti</b> MISO-wiLDCosts: Multiple Information Source Optimization with location-dependent Costs
14:30 p.m. 15:30 p.m.	<b>Special Event: Constantin Caratheodory 150<sup>th</sup> birthday anniversary lecture and iSoGO Constantin Caratheodory Prize recipient announcement</b>
20:00 p.m.	<b>Conference Dinner (fully registered participants only)</b>

## Thursday, July 13, 2023

9:30 a.m. 10:00 a.m.	<b>Mahmud Siamizade and Theodore Trafalis</b> A Bi-Level Global Optimization Framework for Stochastic Planning Model of an Oil Refinery
10:00 a.m. 10:30 a.m.	<b>Dimitra Triantali, Konstantinos Parsopoulos and Konstantina Skouri</b> Optimized vendor managed inventory for replenishment and distribution decisions
10:30 a.m. 11:00 a.m.	<b>Michail Papatsimpas and Konstantinos Parsopoulos</b> Optimized FOREX Rates Forecasting Through EMD-LSTM Hybrid Model
11:00 a.m. 11:30 a.m.	<b>Break</b>
11:30 a.m. 12:00 noon	<b>Special Event:</b> <b>iSoGO Young Researchers Award (iYRA)</b> <b>iSoGO Best Application Paper Award</b> <b>iSoGO Best Theory Paper Award</b>
12:00 noon 12:30 p.m.	<b>Amélie Lambert and Daniel Porumbel</b> A piecewise-quadratic convexification for exactly solving box-constrained quadratic programs
12:30 noon 13:00 p.m.	<b>Ioannis Demetriou and Ioannis Perdikas</b> The best L4 piecewise monotonic data approximation problem
13:00 p.m. 13:30 p.m.	<b>David Barilla, Giuseppe Caristi, Nader Kanzi and Hamed Soroush</b> Duality Results for Nonsmooth Mathematical Problems with Vanishing Constraints
13:30 a.m. 14:00 a.m.	<b>Break</b>
14:00 p.m. 14:30 p.m.	<b>Anestis Anastasiadis, Alexios Lekidis, Ioannis Pierros, Kostas Hrissagis</b> Energy cost optimization for multi-carrier systems with energy hubs in a Smart Microgrid in the presence of RES, CHP and EVs
14:30 p.m. 15:00 p.m.	<b>Jun Pei, Hongzhi Chen, Wenjuan Fan, Ping Yan, Ya Zhou and Shanlin Yang</b> Distributionally Robust Optimization for Coordinated R&D and Trial Production of High-end Equipment with Buffer Setting and Task Re-starting
15:00 p.m. 15:30 p.m.	<b>Mujahid Syed</b> Non-convex Optimization Problems with Linear KKT Subsystem
16:00 p.m. 16:30 p.m.	<b>Closing Remarks</b>

## Friday, July 14, 2023

Research discussions and initiation of scientific collaborations among conference participants