| Time zone: CET |  | Virtual room 1:Zoom |  | Virtual room 2: Zoom |  | Virtual room 3: Zoom |
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|  | June 9 (Thursday) |  |  |  |  |  |
| 09:45-10:00AM | Conference opening (Bo Chen, Alexander S. Kulikov, Silvano Martello) |  |  |  |  |  |
| Session 1 | Scheduling (Chairperson: Van-Dat Cung) |  | Routing (Chairperson: Paolo Toth) |  | Bioinformatics (Chairperson: Jacek Błazewicz) |  |
| 10:00-10:20AM | Ran Lin | Best possible algorithms for online scheduling on identical batch machines with periodic pulse interruptions | Arne Schulz | A branch-and-cut algorithm for the dial-aride problem with ride and waiting time minimization and time windows | Jaroslaw Synak | RNA World - stability of ODE model with limited resources |
| 10:20-10:40AM | Fangfang Wu | A $(2+\varepsilon)$-approximation Algorithm for Scheduling Moldable Tasks on Hybrid Platforms | Gozde Onder Uzun | Biogeography based heuristic for the traveling repairman problem with time windows | Bartosz Adamczyk | RNAsolo: a structural study-aimed RNA database |
| 10:40-11:00AM | Alexander Konono | On the Complexity of Flow Shop Scheduling with Job-Dependent Storage Requirements | Math | A branch-and-price algorithm for a Dengue control routing problem | Michal Zurkows | Genetically or geometrically? How to optimally superimpose RNA structures |
| 11:00-11:10AM | Break (10 minutes) |  |  |  |  |  |
| Session 2 | Scheduling (Chairperson: Mariona Vila Bonilla) |  | Graphs (Chairperson: Marco Pranzo) |  | Bioinformatics (Chairperson: Burak Kocuk) |  |
| 11:10-11:30AM | Adrian SerranoHernandez | Multi-stage Stochastic Optimization for a Biorefinery Supply Chain in Spain | Sylwester Swat | Efficient data reduction rules for the cluster editing problem | Artur Laskowski | Genomic Matching Optimization Problem |
| 11:30-11:50AM | Dmitry Arkhipov | Scheduling, Vehicle Routing and Convex Zones Partitioning Problem | Sebastien Bonte | The average size of maximal matchings in graphs | Nabil Boumedine | Memetic Algorithm with $\beta$ Hill-Climbing Algorithm for Protein structure prediction problem |
| 11:50-12:10PM | Mariona Vila Bonilla | A new hybrid genetic algorithm to minimize cycle time for the Simple Assembly Line Balancing Problem | Marco Pranzo | Computing quantile-based Makespan risk in Interval Valued Activity Networks | Burak Kocuk | Risk-Averse Antibiotics Time Machine Problem |
| 12:10-12:20PM |  |  |  | Break (10 minutes) |  |  |
| Session 3 | Scheduling (Chairperson: Maciej Drozdowski) |  | Routing (Chairperson: llya Chernykh) |  | Packing, scheduling (Chairperson: Hamed Azami Zenouzagh) |  |
| 12:20-12:40PM | Marta Flamini | Models for a complex job-shop scheduling problem with additional resources | Olga Krivonogova | Efficient Algorithms for the Routing Open Shop with Unrelated Travel Times on Cacti | Sofia Shperling | A knapsack problem for rectangles under the gravity center constraints |
| 12:40-01:00PM | Mustafa Avci | Branch-and-cut for the distributed no-wait flowshop scheduling problem | Polina Agzyamova | Routing open shop with preemption allowed | Guo-Qiang Fan | Pareto optimization of two-agent scheduling on mixed batch machines |
| 01:00-01:20PM | Maciej Drozdowski | Container Ship Traffic Model for Optimization Studies | Hya Chernykh | 2-Summing problem and NP-hardness of proportionate routing open shop | Hamed Azami Zenouzagh | Compiling Decision Diagrams for Optimization using Iterative Cost-To-Go Approximation |
| 01:20-02:20PM |  |  |  | Break (1 hour) |  |  |
| Session 4 | Scheduling (Chairperson: Alessandro Hill) |  | Routing (Chairperson: Ege Somer) |  | Misc (Chairperson: Juan A. Gomez-Pulido) |  |
| 02:20-02:40PM | Daniel Skachkov | Cellular Network Rollout Scheduling | Igor Kulachenko | An adaptive large neighborhood search heuristic for the robust ria routing problem with drilling time uncertainty | Salah Batamane | A Weighted based heuristic for LifetimeAlaximization in Wireless Sensor Networks |
| 02:40-03:00PM | Mirko Mucciarini | Demand Forecasting Methods: A Case Study in the Italian Processed Meat Industry | Yang Wang | Combining Reinforcement Learning and Adaptive Large Neighborhood Search for the Capacitated Vehicle Routing Problem | Bartosz Sawik | A Cybersecurity Investment Portfolio of Security Safequards for Military and Nonmilitary Cases |
| 03:00-03:20PM | Alessandro Hill | Efficient Project Scheduling with Autonomous Learning | Ege Somer | Hybrid genetic algorithm approach for production-inventory routing problem with perishable products | Juan A. GomezPulido | Cost Minimization of Slab Bridges bv means of Pattern Search |
| 03:20-03:30PM | Break (10 minutes) |  |  |  |  |  |
| 03:30-04:30PM | Invited talk: Andrea Lodi Mathematical Programming Games: motivation, algorithms and challenges Chairperson: Silvano Martello |  |  |  |  |  |
|  | June 10 (Friday) |  |  |  |  |  |
| Session 5 | Scheduling (Chairperson: Joanna Berlíska) |  | Graphs (Chairperson: Rhyd Lewis) |  | Multiobjective optimization (Chairperson: Michael Stiglmayr) |  |
| 10:00-10:20AM | Ivan Davydov | A matheuristic approach for the supplementary school timetabling problem | Qiao Zhang | The Restricted Inverse Optimal Value Problem on Shortest Path under $\$ 1$ 1 $\$$ Norm on Trees | Younes Djellouli | Accelerating the bi-objective knapsack problem on a CPU-GPU system |
| 10:20-10:40AM | Ivan Davydov | Hybrid Variable Neighborhood Search for Automated Warehouse Scheduling | Xingiang Qian | Vertex quickest 1-center location problem on trees and its inverse problem under weighted lo norm | Banu Icmen Erde | Comparison of Scalarization Methods on Multi-objective Carpooling Problem |
| 10:40-11:00AM | Joanna Berlínska | Scheduling data gathering with background communications and a processing stage | Rhyd Lewis | Algorithms for Finding Fixed-Length Cycles in Edge-Weighted Graphs | Michael Stiglmayr | Ordinal Optimization Through Multiobjective Reformulation |
| 11:00-11:10AM |  |  |  | Break (10 minutes) |  |  |
| Session 6 | Scheduling (Chairperson: Ahmed Missaoui) |  | Graphs (Chairperson: Irene Sciriha) |  | MIP (Chairperson: Stefano Coniglio) |  |
| 11:10-11:30AM | Kasra Mousighichi | The Distributed No-Idle Flowshop Scheduling Problem with Due Windows | Banu Baklan Se | List-3-coloring for Star Convex Bipartite Graphs with Particular Lists | Benedetto Man | Random projections of Quadratically Constrained Programs |
| 11:30-11:50AM | Rukiye Kaya | Mathematical Models and Metaheuristic Approaches for the Order Consolidation Scheduling Problem | Michal Malafiejski | Global defensive secure structures | Stefano Coniglio | Norm minimization problems in data science: an integer programming perspective |
| 11:50-12:10PM | Ahmed Missaoui | An Iterated local search for Solving the Total weighted earliness tardiness Blocking Flowshop scheduling problem | Irene Sciriha | Beyond the Symmetries of the Base Graphs of a Canonical Double Cover | Laureano F . Escudero | On two-stage binary quadratic modeling under uncertainty for Cross-Dock Design |
| 12:10-12:20PM |  |  |  | Break (10 minutes) |  |  |
| Session 7 | Scheduling (Chairperson: Alexander Yuskov) |  | Graphs (Chairperson: Bunyamin Sahin) |  | MIP (Chairperson: Roger Z. Rios) |  |
| 12:20-12:40PM | Alexey Ratushnyi | A two-stage heuristic for the trailers waiting time optimization with uncertain arrival times | Fatma Kaci | On Disjoint Maximum and Maximal independent sets in graphs and Inverse Independence number | Erdener Ozcetin | A VNS Algorithm for Solving Quadratic Assignment Problem |
| 12:40-01:00PM | Bilel Souissi | A machine learning techniques based Fuzzy Multi-Criteria Decision Support approach for online advertising effectiveness | Juanjo Peiro | Some formulations for the capacitated dispersion problem | Abderrahim Arabi | Effective Generation of The Alternative Optima Set for Integer Programming |
| 01:00-01:20PM | Alexander Yuskov | Local search heuristic for the parallel machine scheduling with transport robots | Bunyamin Sahin | Hosoya index of caterpillar graphs | Roger Z. Rios | Exact Optimization of Districting Plans with p-Center-Based Dispersion Minimization |
| 01:20-02:20PM |  |  |  | Break (1 hour) |  |  |
| Session 8 | Scheduling (Chairperson: Alessandro Agnetis) |  | Graphs (Chairperson: Cong X. Kang) |  | MIP (Chairperson: Nelson Maculan) |  |
| 02:20-02:40PM | Blanca SanchezRobles | Non-parametric efficiency in the CRO industry, 2012-2020. A bootstrap two stage exploration | Sebastian Taboh | A Novel Backtracking Algorithm for Solving List Coloring | Evellyn S. Cavalcante | On the arboreal jump number of a poset |
| 02:40-03:00PM | Gabriella Colajanni | Optimizing VF Placement in UAVs for 5G Network and Service Provisioning | M. Antonia MateosCamacho | On the Quintuple Roman domination in graphs | Maria Merino | Time consistent stochastic dominance risk strategies induced by multistage quadratic mixed-integer stochastic optimization |
| 03:00-03:20PM | Alessandro Agnetis | Time-critical testing and search problems | Cong X. Kang | On the simultaneous metric dimension of graphs | Nelson Macula | New Mixed Integer Nonlinear Optimization Models for the Clustering Problem |
| 03:20-03:30PM | Break (10 minutes) |  |  |  |  |  |
| 03:30-04:30PM | Invited talk: Ulrich Pferschy Fairness and Conflicts: Allocating Items and Resources Chairperson: Bo Chen |  |  |  |  |  |
|  | June 11 (Saturday) |  |  |  |  |  |
| Session 9 | Packing (Chairperson: Asaf Levin) |  | MIP, scheduling (Chairperson: Syed Aqib Jalii) |  | Facility location (Chairperson: Maria Grazia Speranza) |  |
| 10:00-10:20AM | Alberto Locatelli | Knapsack problems: An Overview of Recent Advances | Giulia Caselli | Decomposition Algorithms for a Parallel Machine Scheduling Problem with Workforce and Precedence Constraints | Jiahong Zhao | A combinatorial optimization approach for the infectious waste location-routing problem |
| 10:20-10:40AM | G. Jaykrishnan | EPTAS for the Dual Splittable Bin Packing Problem with Cardinality Constraints | Zainab Asim | Developing An Efficient Sustainable Grey Bilevel Model for Healthcare Waste Management | Francesco Gallesi | Dynamic Optimization Algorithms for SameDay Delivery Problems |
| 10:40-11:00AM | Asaf Levin | The near exact bin covering problem | Syed Aqib Jalil | A fuzzy linguistic preferences based method for solving bi-level programming problems | Maria Grazia Speranza | A Kernel Search Heuristic for a Fair Facility Location Problem |
| 11:00-11:10AM |  |  |  | Break (10 minutes) |  |  |
| Session 10 | Packing (Chairperson: Laura Galli) |  | Multi-objective optimization (Chairperson: Yacine Chaiblaine) |  | Facility location (Chairperson: Mirko Cavecchia) |  |
| 11:10-11:30AM | Daniel Hernando Cuellar-Usaquen | An approach for the Online 3D Bin Packing Problem | Chaabane Khadidja | A Parallel Algorithm to solve Bi-Objective Knapsack Problem | Alan Osorio-Mora | Hybrid metaheuristics for the latency location routing problem |


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| 11:30-11:50AM | Zhongxiang Chang | Image data downlink scheduling problem for multi-satellite with characteristic of two-stage cutting stock | Soukeur EL Hussein Iz El Islam | Artificial Neural Network Time Series Model with Multi Objective Optimization for Renewable Energy Developments | Renan Spencer Trindade | Alternative solving methods for Configuration Space Search Problem |
| 11:50-12:10PM | Laura Galli | Matheuristics and Local Search for the Quadratic Multiple Knapsack Problem | Yacine Chaiblaine | Convex Optimization Over the Efficient Set of Multiobjective Integer Linear Fractional Programs | Mirko Cavecchia | A Facility Location Problem to support Helicopter Emergency Medical Services |
| 12:10-12:20PM | Break (10 minutes) |  |  |  |  |  |
| Session 11 | Packing (Chairperson: Mohsen Nafar) |  | Graphs (Chairperson: Kacper Wereszko) |  | Games (Chairperson: Stefan Lendl) |  |
| 12:20-12:40PM | Daniel Rossit | VLC-Indoor positioning Layout design, similarities to packing problems | Pratip Nandi | Annihilator graph of the ring $\mathrm{CF}(\mathrm{X})$ | Emel Savku | An Application of Stochastic Differential Games with Lagrange Multipliers: Bancassurance |
| 12:40-01:00PM | Antoine Lhomme | Lower bounds for online bin stretching and related problems | Daniela Scherer dos Santos | A Dynamic Local Search algorithm for the Maximum Quasi-clique Problem | Darko Skorin-Kapov | The Nucleolus of the Network Connectivity Game |
| 01:00-01:20PM | Mohsen Nafar | Novel heuristics for Compiling Approximate Decision Diagrams for Combinatorial Optimization | Junhua Jia | The Restricted Inverse Optimal Value Problem on Minimum Spanning Tree under Weighted lon Norm | Stefan Lendl | Two-Stage robust optimization problems with two-stage uncertainty |
| 01:20-01:40PM |  |  | Kacper Wereszko | Discrete optimization algorithms for global defensive alliance problem in graphs | Salah Balamane | A Weighted-based heuristic for Lifetime Maximization in Wireless Sensor Networks |
| 01:40-02:40PM | Break (1 hour) |  |  |  |  |  |
| 02:40-03:40PM | Invited talk: Nikolaos Matsatsinis <br> Evolutionary and Swarm Intelligence Algorithms for Combinatorial Optimization Problems Chairperson: Alexander S. Kulikov |  |  |  |  |  |
| 03:40-04:00PM | Closing remarks (Bo Chen, Silvano Martello) |  |  |  |  |  |

