PLATINUM INDUSTRIAL SPONSORS

THE 20TH LEARNING AND INTELLIGENT OPTIMIZATION CONFERENCE

June 15–19, 2026, Milan, Italy

General Information:

- Conference venue: Grand Hotel Villa Torretta

- On Wednesday 17 June, poster session and other Conference activities will take place at Univerisity of Milano-Bicocca, Building U6, Floor -1

Grand Hotel Villa Torretta

University of Milano-Bicocca, Building U6 (main entrance)

Monday 15/06		
09:00-10:00	60 mins	Registration
10:00-10:15	15 mins	Opening: Istitutional Welcome and General Information
10:15-11:00	45 mins	**Special Session 2 "Matheuristics"**
		Fore-and-Back for Changepoint Detection *(speaker: Vittorio Maniezzo)* Graph Reduction with Unsupervised Learning in Column Generation: A Routing Application *(speaker: Laurens Bliek)* Algorithms and Complexity Results for the 0–1 Knapsack Problem with Group Fairness *(speaker: Alberto Santini)*
11:00-11:30	30 mins	Coffee break
11:30-12:30	60 mins	**General track**
		Variable-Length Diverse Planning Monte Carlo Tree Search *(speaker: Nathan Amoussou)* A Benchmark Generator for Combinatorial Testing *(speaker: Eduard Torres Montiel)* Optimization algorithms for the price clustering problem *(speaker: Giovanni Righini)* An Autonomous Navigation Framework for Item Retrieval in Unknown Environments *(speaker: Alessio Mezzina)*
12:30-14:00	90 mins	Lunch
14:00-15:30	90 mins	**Special Session 1 "AI-Driven Optimization: Transforming Optimization with LLMs"**
		Starjob: Dataset for LLM-Driven Job Shop Scheduling *(speaker: Henrik Abgaryan)* ELEVATION: Exploiting LLMs to Improve Efficiency, Scalability, and Flexibility of Heuristics in Solving Optimization Problems *(Lorenzo Saccucci)* LiFT: Local Search via Linear Programming for Overfitting-Controlled Transformers *(speaker: Anikeit Khanna)* Budgeted Multi-Objective Feature Engineering via LLM-Guided Program Search *(speaker: Kartik Pandey)* Combining Symbolic Constraints and LLMs: An Application to the Abstraction and Reasoning Corpus *(speaker: Lukas Kinder)* CP-SynC: Multi-Agent Zero-Shot Constraint Modeling in MiniZinc with Synthesized Checkers *(speaker: Yuliang Song)*
15:30-16:00	30 mins	Coffee break
16:00-17:00	60 mins	**General track**
		Decompositions for Semidefinite Programming with Reinforcement Learning *(speaker: Stefan Røpke)* Learning-Based Minimization of Packet Loss in Time-Sensitive Networking *(speaker: Feyzullah Kara)* How forecast errors propagate into Sales and Operations Planning decisions: A controlled study of RL robustness *(speaker: Akram Badreddine Laissaoui)* Optimizing Dynamic Replica Placement in in Wide-Area Replicated Systems via Reinforcement Learning *(speaker: Kevin Tierney)*

Tuesday 16/06		
09:00-10:00	60 mins	**Special Session 5 "Advances in Data-Driven Optimization and AI-Enhanced Business Process Mining"**
		Towards an Explainable Decision Intelligence: Leveraging Predictive ML, SHAP, and Causal Digital Twin for Order-to-Cash Process *(speaker: Shruti Kirti Nandan)* Multimodal Explainable Wildfire Detection Using YOLOv8 and Transformer Attention *(speaker: Vijaya J)* OITM: An Object-Type Interaction and Temporal Model for Object-Centric Process Mining *(speaker: Pranav Sahu)* Drift-Aware Process Mining for Loan Processing Systems: A Framework for Detecting and Managing Concept Drift in Digital Lending and Microfinance Operations *(speaker: Shruti Kirti Nandan)*
10:00-10:30	30 mins	Coffee break
10:30-11:30	60 mins	**Industrial talk "The End of Incrementalism: Generative AI is Redefining the Very Fabric of the Edge" (Danilo Pau, STMicroelectronics)**
11:30-12:30	60 mins	**Industrial talk "Hexaly, Hybrid Optimization Solver" (Julien Darlay, HEXALY)**
12:30-14:00	90 mins	Lunch
14:00-16:00	120 mins	**Keynote - Mixed-Integer Programming: 65+ years of history and the AI challenge (Andrea Lodi)**
16:00-16:30	30 mins	Coffee break
16:30-17:30	60 mins	**Special Session 8 "Bayesian optimization: recent achievements and challenges ahead"**
		Reduced-Space Multi-Fidelity Bayesian Optimization of Process Simulation Models *(speaker: Niki Triantafyllou)* Wasserstein-enabled characterization of designs and myopic decisions in Bayesian Optimization *(speaker: Antonio Candelieri)* Combining GPs and NNs as Surrogate Models in BO *(speaker: Omer Ekmekcioglu)* BPO: Bayesian Preference Optimization for Multiobjective Discrete Optimization *(speaker: Elias Khalil)*
17:30-18:30	60 mins	**Special Session 5 "Advances in Data-Driven Optimization and AI-Enhanced Business Process Mining"**
		AdaptSRNet: Enhancing Image Steganalysis via Adaptive Filter-Attention Fusion *(speaker: Lakshya Garg)* Physics-Guided Optimization for Learning under Physiological Constraints: A Case Study on Hemoglobin Estimation *(speaker: Shashank Mishra)* CAL-ATS: Cosine Adaptive Lookahead Optimization for Automated Applicant Tracking Systems *(speaker: Abhiram Alla)* TuroMiner : An efficient and advanced process discovery algorithm for complex processes *(speaker: Pranav Sahu)*

Wednesday 17/06 (in University Milano-Bicocca, Building U6)	
09:00-09:30 30 mins	1 minute poster trailer!
09:30-10:30 60 mins	Poster session (with coffee break at 10:00)
	Coffee break
10:30-12:30 120 mins	**Keynote - Large-Scale and Data-Driven Markov Decision Processes (Wolfram Wiesmann)**
12:30-13:30 60 mins	Lunch
13:30-14:30 60 mins	**Legacy Lecture - Optimal Transport on Metric Measure Spaces, Graphs and Networked Data (Francesco Archetti)**
14:30-18:00 210 mins	Social event: Visiting Royal Villa of Monza (Reggia di Monza),
20:00	Social Dinner at Grand Hotel Villa Torretta

Thursday 18/06	
09:00-10:30 90 mins	**General track**
	A Clustering-Based Variable Ordering Framework for Relaxed Decision Diagrams for Maximum Weighted Independent Set Problem *(speaker: Mohsen Nafar)* Practical Visual Question Answering at the Edge *(speaker: Danilo Pau)* Leveraging Structural Constraints for Diffusion-based Neural TSP Solvers *(speaker: Mickael Basson)* Defining Core Problems for Set Covering Instances Using Machine Learning: a Proof of Concept *(speaker: Sameh Al Shihabi)* Generative Modeling of Approximately Periodic Time Series by a Posterior-Weighted Gaussian Process *(speaker: Elias Reich)* Adaptive Backbone Selection for Complexity-Aware and Energy-Efficient Visual Inference *(speaker: Alexander Jesser)*
10:30-11:00 30 mins	Coffee break
11:00-13:00 100 mins	**Keynote - AI and the Future of the Universe (Juergen Schmidhuber)**
13:00-14:30 90 mins	Lunch
14:30-15:30 60 mins	**General track**
	Diffusion-enabled Optimal Transport distances for graph matching *(speaker: Francesco Archetti)* Optimizing persistent surveillance missions for UAVs by column generation *(speaker: William Stenberg)* A Preliminary Study on GAN-Augmented Column Generation *(speaker: Mick Molitor)* From Ensembles to One Graph: Consensus DAGs with Minimal Information Loss *(speaker: Efthyvoulos Drousiotis)*
15:30-16:30 60 mins	**General track**
	Genetic Branching: An Evolutionary Framework for Interpretable Branching Strategies *(speaker: Simon Renard)* An Efficient Greedy-Randomized Heuristic for the Minimum Weakly Connected Dominating Set Problem *(speaker: Sachchida Nand Chaurasia)* Multi-fidelity Optimisation via Hybrid Genetic-Greedy Search *(speaker: Mitra Heidari)* Integrated Formulation of Sequential Multiobjective Optimization Based on System Surrogate Model Learning Under L_∞-norm Error Constraints *(speaker: Kenichi Tamura)*
16:30-17:00 30 mins	Coffee break
17:00-18:00 60 mins	**General track**
	Opening the Black Box: Topologically Guided Latent Steering for Neural Combinatorial Optimization *(speaker: Henrik Abgaryan)* A Scalable Matheuristic for Routing Capacity-Constrained Groundfish Surveys *(speaker: Margrét Vala Þórisdóttir)* Vertex Sampling for Backdoor Search in Binary Linear Optimization *(speaker: Chang Liu)* Heuristic-Based Agent to Solve The Online Three-Dimensional Container Loading Problem *(speaker: Juan Sebastián Herrera Cobo)*

Friday 19/06	
09:00-10:00 60 mins	**General track**
	Quantum-Enhanced Chaotic Particle Swarm Optimization for LSTM-Based Stock Market Forecasting *(speaker: Absalom Ezugwu)* Learning District Visitation Sequences for Hierarchical Last-Mile Delivery *(speaker: Farzam Salimi)* Constraint programming for unrelated parallel machine scheduling with unrelated servers *(speaker: Nikolaos Liouliakis)* A Two-Stage Learning-and-Optimization Framework for Real-Time Train Platforming *(speaker: Md Tabish Haque)*
10:00-10:30 30 mins	Coffee break
10:30-11:30 60 mins	**General track**
	Is there a (carbon-) free lunch? Energy/performance tradeoffs in population-based metaheuristics *(speaker: Juan Luis Jiménez Laredo)* Heuristics for Variable Cost and Size Cluster Vector Bin Packing *(speaker: Laura Wolf)* COAgents: Multi-Agent Framework to Learn and Navigate Routing Problems Search Space *(speaker: Mahdi Mostajabdaveh)* Latent Heuristic Search: Continuous Optimization for Automated Algorithm Design *(speaker: Mahdi Mostajabdaveh)*
11:30-12:00 30 mins	Closing and news about LION21

List of Posters

- *Andrea Taverna:* "Prime-Times: Applying Metaheuristics and Simulators for Real-World Large-Scale Network Planning"
- *Rodrigo Viana:* "A Matheuristic Simulated Annealing Framework with a Machine Learning–Based Objective Function"
- *Sanja Stevanovic:* "A Grasshopper Plugin for Meta-Optimized Parallel Surrogate Building Energy Optimization"
- *Niki Triantafyllou:* "Learning Feasibility Landscapes for Combinatorial Optimization via Graph Energy-Based Models"
- *Laurens Bliek:* "Beyond Human-centered Automated Machine Learning"
- *Antonio Candelieri:* "Optimal Transport-based Permutation-Invariant Bayesian Optimization of Offshore Wind Farm Layouts"
- *Francesco Bianchi:* "Optimization and correlation analysis for the location of services in urban areas using multi-source data"
- *Federico Pavesi:* "Reaching the Boundary: Bringing astral spaces to Riemannian optimization over the probability simplex"
- *Yu Liu:* "Input convex neural networks as surrogates in mathematical optimization"
- *Pavel Falta:* "Expanding Arterial Blood Pressure Dataset with Synthetic Data"
- *Simon Urbak:* "Graph Neural Network-Based Network Reduction for Large-Scale Column Generation in Liner Shipping"
- *Elisa Savio:* "A Tabu Search and a Maskable PPO for the Three-Dimensional Block Relocation Problem with Item Families"
- *Michal Soukup:* "Interpretable Frequency-Based Synthesis of Intracranial Pressure Signals"
- *Albert Olson:* "Graph Neural Network Enhanced Column Generation"
- *Emma Pajak:* "Rethinking LLM-in-the-loop-Bayesian Optimisation: Where, How, and When Should LLMs Be Integrated?"
- *Nele Bertling:* "Quantile-Based Sequential Learning and Optimization"
- *Nayeli Gast Zepeda:* "LLM-Driven Discovery of Heuristic Operators for Highly Constrained Routing Problems"
- *Thomä Simon:* "Inventory for Impact: Scalable Inventory Routing for Clean Cooking Access in Developing Economies"
- *Dietl Markus:* "Operational route planning under uncertainty for Demand Adaptive Systems with Multiple Lines"
- *Jesse van Remmerden:* "Generalizing Beyond Suboptimality: Offline Reinforcement Learning Learns Effective Scheduling through Random Solutions"
- *Zbysek Posel:* "Machine Learning Approaches for Imbalanced Intracranial Pressure Analysis"