GOR Gesellschaft für Operations Research e.V.

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FLIX

GOR-AG: Praxis der Mathematischen Optimierung
Dr. Jens Schulz

Mail: schulz-gor'at'gmx.net

We invite you to the 111th meeting of the GOR working group "Practice of Mathematical Optimization". This meeting is planned to be held in person, with the topic

Optimization in the era of Generative AI

The workshop is hosted and co-organized by Flix SE, known for brands like FlixBus and FlixTrain.

It will take place on **Thursday and Friday, November 26 & 27**, at Flix SE headquarters in **Munich, Germany**.

Participation in the workshop is free for all GOR members, speakers, and hosts. Otherwise, the participation fee is 50€ for bachelor's and master's students, and 100€ for everyone else. The working language will be English.
Flix SE sponsors food and drinks during the event. We strongly advise you to book your stay and travel, acknowledging that the on-site event may be canceled on short notice. In this case, the organizers will waive the registration fee but will not refund any other costs.

Registration has been closed due to room capacities.

The latest information on the meeting is available on the homepage of the GOR (http://www.gor-ev.de/arbeitsgruppen/praxis-der-mathematischen-optimierung/real-world-optimization).

Yours sincerely,

Jens Schulz, Julia Kallrath, Josef Kallrath (GOR AG)

Berit Johannes, Sander Van Aken (Flix SE)

Vorstand
Prof. Dr. Jutta Geldermann (Vorsitz)
Prof. Dr. Stefan Ruzika (Arbeitsgruppen)
Prof Dr. Dominik Möst (Tagungen)
Hanno Schülldorf (Finanzen)

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Optimization in the era of Generative AI

Specific aims

In this workshop, we want to discuss how Generative AI, or broadly Agentic AI, is reshaping Operations Research. We focus on combining OR and LLMs to create more impact with OR and to democratize it. We are interested in how this combination changes the OR pipeline end-to-end, from model development and testing through to decision-support tools and end-user assistants. We also aim to explore the new workflows, roles, and user experiences that this enables.
We welcome speakers and attendees to present and discuss cutting-edge research and practical applications at the intersection of GenAI and mathematical optimization. The presentations will cover topics ranging from problem formulation and structuring, AI-assisted model development, scenario generation and robustness analysis, conversational decision support, interactive what-if analysis, explainability of optimization recommendations and decision trade-offs, trust and reliability, and lessons learned from deploying GenAI-enabled workflows in practice.

Given how fast this space is moving, we also explicitly invite participants to bring topics from their own experiences - early-stage ideas, lessons from ongoing experiments, or open questions are equally welcome.
We want to foster collaboration and knowledge sharing among industry experts, researchers, and academics. We provide a platform for networking and exchanging ideas with fellow professionals and industry practitioners. Practical, computational, and architectural contributions from academia and industry are welcome for submission.

The core of this 1.5-day workshop will feature an engaging schedule of talks, while, as usual, we will reserve plenty of time for informal exchange and networking.
Format of presentations:

- **Talks** of **35 + 10 min** duration – expert talks
- **Lightning talks** of **5 (maybe 10) min** – present your company's perspective, demonstrate your favorite GitHub projects,... on Thursday.

If you would like to contribute a talk, please feel free to contact the organizers.
Jens Schulz (schulz-gor 'at' gmx.net)

About Flix SE
Flix intends to transform the collective transport sector by offering sustainable and affordable long-distance bus- and train travel solutions in more than 40 countries across four continents through its brands FlixBus, FlixTrain, Kamil Koç, and Greyhound. With its asset-light business model and innovative technology platform, Flix, launched in 2013, swiftly established a market-leading position for long-distance bus travel in Europe, North America and Türkiye and is rapidly expanding further into South America and Asia-Pacific region.
While Flix manages the commercial side of the business such as network planning, pricing, operations control, marketing and sales, quality management and continuous product development with a data-driven approach, trusted Flix partners conduct the daily operations.

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The venue & accommodation

Venue

Flix SE headquarter
Friedenheimer Brücke 16
80639 München

Accommodation

You are free to choose any hotel, there are plenty of alternatives along the S Bahn between Hirschgarten and Hauptbahnhof. Here are two hotels near the Flix SE headquarter that we are planning to use:

Holiday Inn Express München City West Friedenheimer Brücke 15, 80639 Munich, Germany View on Google Maps

Ibis München City Arnulfpark Arnulfstraße 2, 80335 Munich, Germany View on Google Maps

Pre-conference get-together

For arrivals on Wednesday, we organize a spot in a restaurant. Please, let us know upon registration whether you would like to participate. You can change your choice later.

Conference dinner

We will hold a conference dinner on Thursday evening ~10min from the Munich office. It is included in the participation fee.

Augustiner Ewiges Licht
Wälsungenstraße 1
80634 München-Neuhausen-Nymphenburg
https://maps.app.goo.gl/DQas9aZqmowioKmL8

Excursion

Depending on weather conditions, we will take a walk outside or arrange some indoor activity in the office.

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Talks

In alphabetical order of author's last name

- **Making AI-Assisted PDE-Constrained Optimization Verifiable: Adjoint Derivation, Scientific Code Development, and a Multiphysics Biomedical Testbed**
  Vladislav Bukshtynov (University of Colorado Boulder)
- **ParetoChat: An LLM-Based Interface for Interactive Multi-Objective Optimization**
  Gökhan Ceyhan (Just Eat Takeaway)
- **From Prose to Solver: Turning Natural-Language Descriptions into Validated, Solver-Routable Optimization Tasks**
  Andreas Götz (OptWare)
- **Explainability in Optimization: Three Complementary Approaches**
  Michael Hartisch & Sebastian Merten (Uni Passau)
- **Can you beat the Algorithm? Using GenAI to create an OR Games Factory**
  Jens-Peter Joost (JPJ Solutions)
- **What makes a problem agent-ready? Benchmark design for AI-generated algorithms**
  Adithya Kumar & Daniel Adams (The Innovation Game)
- **Sixt Agentic AI Application**
  Eunji Lee (SiXt SE)
- **Smarter Optimization with GenAI: From Model Development to Decision Support**
  Merlin Viernickel & Felix Westerkamp (d-fine)
- **Making LLM-assisted optimization modeling verifiable**
  Justus Killian Wolff (Bools.io)
- **Combining LLMs with optimization models to enable configurability and explainability**
  Network Planning Optimization (Flix SE)

Lightning talks

In alphabetical order of author's last name

- **AI agents for supply chain network studies**
  Lovis Andersen (SCMotif)
- **Evaluating SLM Generated Planning Domains: Prompt Engineering, Staged Generation, and a Structure-Aware Validator**
  Rohit Gupta (Computationele Wetenschapsgroep)
- **Explainability and Interpretability in Optimization**
  Michael Hartisch (Uni Passau)
- **Agentic AI for Transport Optimization and Execution in the S2data Platform**
  Stefan Lendl (S2Data)
- **AI in IVU.opt: From Decoding Legacy Systems to Developing New Features**
  Stephan Schwartz (IVU)
- **OR and AI Team Up to Tackle "Planning Tetris": An LLM-based Optimization Copilot for Explainable Resource Allocation**
  Alexander Souza (Algomia GmbH and University of Zurich)
- **From Optimization Experts to Empowered Planners: How GenAI Democratizes Optimization**
  Konrad Steiner (Optano)
- **From Model to Insight: AI-Powered Workflows in GAMS**
  Frederik Proske (GAMS)

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Abstracts

Making AI-Assisted PDE-Constrained Optimization Verifiable: Adjoint Derivation, Scientific Code Development, and a Multiphysics Biomedical Testbed
Vladislav Bukshtynov (University of Colorado Boulder)
The presentation will discuss an ongoing, researcher-verified workflow for using generative AI in PDE-constrained optimization, including the derivation and verification of adjoint equations, development of scientific code, and validation of AI-generated mathematical and computational results. The workflow is illustrated using a multiphysics parameter-identification and optimization problem for bioprinted skin grafts.
Vladislav Bukshtynov is an Instructional Associate in the Department of Mathematics at the University of Colorado Boulder.

ParetoChat: An LLM-Based Interface for Interactive Multi-Objective Optimization
Gökhan Ceyhan (Just Eat Takeaway)
Multi-objective optimization models are often deployed in settings where decision makers (DMs) must balance some conflicting criteria. In practice, however, stakeholders must translate their qualitative preferences between different criteria into numerical weights, priorities, or reference points required by optimization methods, which can be difficult to specify and interpret. This paper proposes ParetoChat, an LLM (large language model)-based expert-agent interface for interactive multi-objective optimization.
The agent translates natural-language user input into structured scalarization parameters, invokes an optimization system, presents candidate solutions, and iteratively elicits feedback. We describe a multi-agent architecture that separates input processing, multi-criteria decision-making (MCDM) expertise, solution presentation, and feedback processing. We then present a simulation study using an LLM-based DM agent and benchmark ParetoChat against interactive methods implemented in DESDEO, including reference-point and NIMBUS methods. The computational experiments on multi-objective binary knapsack and set-partitioning instances show that ParetoChat can guide the search efficiently toward solutions that match the DM's preferences. An application to historical courier-order assignment instances illustrates how users can explore objective extremes and intermediate trade-offs through natural-language requests. The results indicate that LLM agents may provide a practical interaction layer between business stakeholders and optimization tools.
Dr. **Gökhan Ceyhan** is a Principal Data Scientist at Just Eat Takeaway. He earned his Ph.D. in Industrial Engineering from Middle East Technical University in Ankara, Turkey. His primary research interests include multi-objective optimization, mixed-integer programming, and recently, reinforcement learning.

From Prose to Solver: Turning Natural-Language Descriptions into Validated, Solver-Routable Optimization Tasks
Andreas Götz (OptWare)
Validation, solver routing, and orchestration as foundations for agentic optimization workflows — with lessons from the OptWare Hub
Andreas Götz is Head of Product Engineering at OptWare.

Explainability in Optimization: Three Complementary Approaches
Michael Hartisch & Sebastian Merten (Uni Passau)
In many practical applications of mathematical optimization, the success of a project largely depends on the acceptance of solutions by the stakeholders involved. Consequently, it is

often necessary to explain or justify why a specific solution was chosen. However, simply stating that a solution is identified as optimal is often insufficient, and commercial solvers typically offer little assistance in providing more intuitive justifications.
We present three approaches that can be used to provide explanations for mathematical optimization. First, we introduce a data-driven optimization approach that produces solutions that can easily be compared with decisions implemented in similar past instances. This approach embeds explainability directly into the optimization process as an additional evaluation criterion rather than treating it as a post-hoc justification. Second, we introduce interpretable surrogates which comprehensibly map problem instances to solutions of the underlying optimization model, giving stakeholders more direct insight into the decision-making process. Third, we consider counterfactual explanations for optimization, which describe the minimal change required in the instance parameters such that an optimal solution fulfills specific desired criteria. Our goal is to motivate these approaches, illustrate them through initial methodological and computational insights, and engage in a discussion on potential future directions.

Can you beat the Algorithm? Using GenAI to create an OR Games Factory
Jens-Peter Joost (JPJ Solutions)
From a certain perspective, operations research problems can be viewed as games: within a clearly defined setting and under limited resources, the goal is to achieve the highest possible Score. As computer games have grown in popularity over the past decades, gamified learning may offer an opportunity to raise awareness of operations research and make its concepts more accessible.
This talk presents how generative AI was used to create an Operations Research Games Arcade consisting of seven games. In each game, players compete against an optimization algorithm and attempt to find an optimal or near-optimal solution to a classical OR problem embedded in a fantasy setting. In “Dungeon Hoard”, players fight monsters and pack valuable loot while solving a two-dimensional knapsack problem. In “Cart & Run”, they flee from a minotaur, all while tackling a prize-collecting vehicle routing problem.
Which AI tools were used? What worked well? Where do current generative AI capabilities still fall short? The talk shares lessons learned from this experimental project and discusses how they can be transferred to the use of agentic coding tools in real-world operations research applications.
Jens-Peter Joost is an independent Operations Research consultant and optimization specialist developing decision-support and optimization solutions, particularly in routing, logistics, and supply chain planning. Through his consultancy JPJ Solutions, he combines mathematical optimization, modern software engineering, and GenAI to turn complex OR

What makes a problem agent-ready? Benchmark design for AI-generated algorithms
Adithya Kumar & Daniel Adams (The Innovation Game)
When AI agents generate and test thousands of algorithm variants, the benchmark becomes the specification: whatever it rewards, agents will find. Weak benchmarks reward overfitting, exploits and noise. This talk focuses on what an optimisation benchmark needs before agents can be used. Drawing on the design of The Innovation Game (TIG), an open protocol where humans and agents compete to improve algorithms for NP-hard problems, we discuss the importance of asymmetric problems whose solutions are cheap to check exactly, randomised instance generation, metrics that reflect real value, defences against gaming, and noise evaluation to separate real progress from variance. We illustrate with examples of agents exploiting weak evaluation and overfitting algorithms. These lessons will apply to any team evaluating AI-generated optimisation code, from solver tuning to model generation.

Adithya Kumar is a computational researcher at The Innovation Game, working on automated methods for algorithm improvement.
Dr Daniel Adams is the Head of Research at The Innovation Game, working on open algorithm development.

Sixt Agentic AI Application
Eunji Lee (SiXt SE)
Large-scale operational planning in asset-intensive industries relies on mathematical optimization, but model outputs are routinely adjusted by domain experts whose contextual judgment isn't captured in the model's objective function - and those adjustments rarely feed back into future planning cycles. We present an approach to making this human-in-the-loop process more structured: a multi-agent AI system that augments the optimizer with analytical layers, with the goal of making model outputs interrogable and expert interventions explainable. We share the architecture of a production system at SIXT, the design discipline required to earn trust from experienced domain experts - specifically the challenge of keeping AI recommendations traceable and the conversational interface that lets users explore trade-offs rather than accept outputs passively - and early signals on whether the system changes expert behavior over time. The talk concludes with open questions around closing the loop between human insight and model inputs, and the broader challenge of building AI systems that improve through use rather than despite it.
Eunji Lee is Executive Product Analyst in Operations Research at SiXt SE and holds a Ph.D. in Logistics & Supply Chain Management from Technical University of Munich, Germany (2024). From 2024 to 2026, Eunji was Assistant Professor in Supply Chain Management at University of Mannheim – Business School - Faculty of Operations Management.

Smarter Optimization with GenAI: From Model Development to Decision Support
Merlin Viernickel & Felix Westerkamp (d-fine)
Generative AI can accelerate optimization development, simplify interaction with complex models, and make results more transparent. In a world where time-to-value is critical, it supports natural-language scenario analysis, explains decision drivers and trade-offs, and helps developers improve formulations, solver settings, and data workflows.

In this talk, d-fine presents examples from its inhouse optimization platform, showing how (Gen) AI enhances the optimization lifecycle and increases value through key features in explainability, usability, and performance tuning. We demonstrate this by real-world examples from Mobility and Transportation sector including Intermodal Routing, Supply Chain Network Design and Dispatching.

Merlin Viernickel is Manager in the department for Mathematical Optimization at d-fine, a European consultancy focused on quantitative and analytical problems. He has a Master of Science in Mathematics from the Technical University of Berlin and worked at Zuse Institute Berlin in OR prior to bringing his expertise to the private sector.

Felix Westerkamp is Manager in the field of Mobility and Transportation at d-fine, where he applies AI and OR to improve operations in rail, aviation or logistics. He holds a Master of Science in Mathematics and is currently pursuing his PhD in Sustainable and Resilient Supply Chain Optimization at TU Hamburg.

Making LLM-assisted optimisation modelling verifiable
Justus Killian Wolff (Bools.io)

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Generative AI is quickly changing how optimisation models are created. Large language models (LLMs) can explain standard formulations, generate solver code, and translate natural-language requirements into structured models. This lowers the cost of getting to a first model, but it also raises a harder practical question: how do we know that the generated model is the right model?

A useful optimisation model is not finished when it solves. It still has to be explained, checked against the real problem, corrected when assumptions are wrong, and adapted when requirements change. For users outside dedicated OR teams, generated Python, JuMP, or Pyomo code often remains hard to inspect or own.

This talk looks at a shift in the modelling workflow: if LLMs can produce a first formulation quickly, the bottleneck moves from writing constraints to making modelling decisions explicit, reviewable, and explainable. Many practical models reuse the same patterns again and again: exactly-one choices, at-most-one assignments, if-then dependencies, capacity limits, allocation rules. Keeping these patterns visible as named modelling concepts before compiling them into algebraic formulations makes the model easier to discuss and gives the LLM a more structured target. To make this concrete, the talk draws on the development of bools and uses a realistic planning example to illustrate the workflow, from plain-language problem description to readable model and solved instance. This serves as a basis for discussing lessons from using LLMs for optimisation modelling in practice: prompting, modelling abstractions, sandboxing, and user review.

We also discuss where this approach is particularly useful today: in model review and recurring planning problems, especially in companies that have not used optimisation before, where standard modelling patterns are often sufficient and the hard part is making the model understandable, trustworthy, and easy to adapt. More broadly, we ask how OR expertise changes when LLMs can draft models: from writing every constraint by hand toward designing the workflows, abstractions, and verification mechanisms that make optimisation usable beyond specialist teams.

Justus Kilian Wolff is the founder of bools. He holds a B.Sc. in Industrial Engineering from Karlsruhe Institute of Technology (KIT) and an M.Sc. in Operational Research from the University of Edinburgh. Before founding bools, he built fraud detection systems at audit.neo. With bools, he works to lower the barrier to using mathematical optimisation in practice by making models easier to create, verify, and adapt.

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Lightning Talks

AI agents for supply chain network studies
Lovis Andersen (SCMotif)
Modern AI agents can use tools such as Python and mathematical modelling libraries and work autonomously on complex, multi-step analysis tasks such as supply chain optimization. However, their results may be based on incorrect or opaque assumptions and are often difficult to verify. As a consequence, they cannot yet deliver trustworthy analyses at speed. We introduce a toolkit that enables agents to construct end-to-end analytical workflows, covering the full process from data parsing and transformation to optimization and scenario generation. A validation layer provides the agent with feedback at every step, from data validity to model correctness. Together, these components allow agents to reliably conduct supply chain network studies, as we demonstrate with an outside-in network study for a German retailer.
We argue that such agents could make optimization-based analysis accessible not only for major network design studies, but also for smaller decisions and rapid responses to supply chain disruptions.
Lovis Andersen started his career in research at the intersection of AI and mathematical optimization, but quickly left academia for industry, where he first worked on technician scheduling at Deutsche Bahn, followed by supply chain network optimization at OPTANO. He started his own company SCmotif with the goal of making supply chain optimization accessible and fast enough, through AI, for every company and problem that needs it.

Evaluating SLM Generated Planning Domains: Prompt Engineering, Staged Generation, and a Structure-Aware Validator
Rohit Gupta (Computationele Wetenschapsgroep)
CW's Digital Twin already lets planners express the production-planning problem for HEML workflows in PDDL (Planning Domain Definition Language). This opens the door to AI planning on top of the existing DEM/optimisation stack.
The goal of this work was to automate that PDDL generation with a Small Language Model (SLM), so it could reproduce the domains CW's planning module currently generates programmatically. The hard part isn't producing syntactically valid PDDL. It's preserving semantics. Action parameters must reference valid types, and predicates must be used consistently across preconditions and effects. That makes whole-domain generation a tightly coupled problem. We researched the following three questions:
1. How can prompting improve the reliability and completeness of SLM-generated PDDL? 2. How can generated PDDL be compared quantitatively against a source-of-truth (SoT) domain despite differences in naming and structure? 3. What computational constraints arise from running these models locally through Ollama?
We found out that
• Prompt engineering moved failures from broken serialization to higher-level semantic errors. Narrow, component-specific instructions worked best.
• Mistral 7B can't reliably handle every PDDL component at once, since improving actions can hurt types, predicates or functions. Staged generation with validated hand-off is the natural fix.
• Text equality is the wrong yardstick for generated planning domains. A structure-first, semantics-second validator quantifies what's missing, what's extra, and what's structurally verified.

Explainability and Interpretability in Optimization
Michael Hartisch (Uni Passau)

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The evolution of mathematical programming has revolutionized our ability to address once-deemed intractable real-world problems on a large scale. Despite the efficiency of modern optimization techniques, stakeholders often remain reluctant to accept provably optimal solutions, in part because optimization software is perceived as a black box. While well-understood by the scientific community, this lack of transparency poses a barrier to practitioners. We advocate for a paradigm shift by emphasizing the importance of incorporating aspects of interpretability and explainability in mathematical optimization. By clarifying these concepts, we aim to bridge the gap between the advanced techniques understood by scientists and the accessibility required by practitioners.

Agentic AI for Transport Optimization and Execution in the S2data Platform
Stefan Lendl (S2data)
This talk presents the AI Agent of the S2data Platform and how it enables planners to interact with optimization systems through natural language. Rather than replacing mathematical optimization, the agent operates the existing optimization stack by creating scenarios, adjusting parameters and constraints, launching solver runs, interpreting results, and executing actions within planning processes.
We show examples from three areas of the platform: Network Optimization, Material Planning, and Freight Planning, including vehicle routing and 3D load planning. Starting from business-level requests such as "What happens if demand in sector A decreases by 15% and freight rates in from region B to C increase by 10%?", the agent derives the required model changes, creates scenarios, executes optimizations, and summarizes the resulting trade-offs. Beyond analysis, the agent acts as a system of action. It can create and validate master data, trigger optimization workflows, generate reports, and execute operational tasks through a controlled tool layer. The agent operates with access to the same context as the user while respecting permissions, approval requirements, and auditability constraints.

From Model to Insight: AI-Powered Workflows in GAMS
Frederik Proske (GAMS)
Optimization models offer immense value, but their impact depends on how easily users can interpret results and manage workflows. Integrating AI into GAMS addresses this by making optimization tools more accessible and accelerating routine tasks for both developers and decision-makers.
This talk explores AI-driven enhancements within GAMS, focusing on conversational interfaces that simplify data exploration, scenario comparison, and visualization development. We will demonstrate how natural language interactions can streamline data analysis and model execution workflows, thereby reducing friction and moving from run to insight faster.
Frederik Proske is the Product Manager for GAMS Engine and a primary senior developer of GAMS MIRO, specializing in making optimization tools accessible and efficient. He holds a Master's in Industrial Engineering from Leibniz University Hanover and regularly consults on decision-support projects at GAMS.

AI in IVU.opt: From Decoding Legacy Systems to Developing New Features
Stephan Schwartz
We use AI agents in IVU's optimization team to simplify everyday development tasks, understand complex (legacy) code more quickly, and selectively extend our optimization model. What works well so far—and what does not (yet)?
Stephan Schwartz is Senior Optimization Developer since 2023 at IVU, a planning service provider for railway and bus planning. He finished his PhD in 2018 at Zuse Institute Berlin in the group of Ralf Borndörfer.

OR and AI Team Up to Tackle "Planning Tetris": An LLM-based Optimization Copilot for Explainable Resource Allocation
Nilaksan Selliah (University of Zurich) and Alexander Souza (Algomia GmbH and University of Zurich)
Planners play a daily game of "Tetris" when allocating heterogeneous resources to tasks. An optimizer yields high-quality plans, but planners often see it as a black box, which limits trust in practice.
We present an LLM-based optimization copilot, developed in a master's thesis at the University of Zurich. The optimizer solves a generic resource allocation problem as a set-constrained flow problem. OR and AI are strictly separated: we enrich the model with structured metadata, and the LLM never sees the model itself. It receives an excerpt of the metadata, explains the solution to the planner, and suggests what-if changes to improve the plan. For counterfactual questions, it can use a defined set of operations to interact with the model. Planners work in a Gantt chart with an integrated chat.
This metadata-only interface protects model IP, sensitive data, and guards against hallucinated model changes, while the optimization model remains the single source of truth.
Alexander Souza is a part-time lecturer in algorithms at the University of Zurich and the founder of Algomia GmbH, which develops large-scale optimization solutions for scheduling and resource allocation problems, e.g., crew diagramming and asset maintenance.

From Optimization Experts to Empowered Planners: How GenAI Democratizes Optimization
Konrad Steiner (Optano)
Drawing on OPTANO’s experience and insights from our product development, this talk explores how GenAI makes mathematical optimization accessible to planners. By supporting data preparation, result interpretation, idea generation, and agentic workflows, GenAI lowers the barrier to apply optimization, while proven mathematical models remain at the core.
Konrad Steiner is Managing Director at Optano GmbH.

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111th meeting of the GOR working group “Practice of Mathematical Optimization”

Optimization in the era of GenAI

Thursday, November, 26 2026: 09:00 – 17:00

08:30-09:00 *Welcome coffee, take a seat and have first chats*

09:00-09:30 **Opening and Welcome** (Jens Schulz, Julia Kallrath & Sander van Aken)
09:30-10:15 Combining LLMs with optimization models to enable configurability and explainability
Network Planning Optimization (Flix SE)

--- short break ---
10:30-11:15 Can you beat the Algorithm? Using GenAI to create an OR Games Factory
Jens-Peter Joost (JPJ Solutions)
11:15-11:45 3 Lightning Talks

12:00-13:30 ---------- Lunch Break ----------

13:30-14:15 Sixt Agentic AI Application
Eunji Lee (SiXt SE)
14:15-14:45 Smarter Optimization with GenAI: From Model Development to Decision Support
Merlin Viernickel & Felix Westerkamp (d-fine)

14:45-15:15 ---------- coffee break ----------

15:15-15:45 Making LLM-assisted optimization modeling verifiable
Justus Killian Wolff (Bools.io)
15:45-16:45 5 Lightning Talks

---------- Taking a Group Photo for the OR News and Press ----------
17:00-18:00 Excursion

18:30-21:00 **Conference Dinner**

Vorstand
Prof. Dr. Jutta Geldermann (Vorsitz)
Prof. Dr. Stefan Ruzika (Arbeitsgruppen)
Prof Dr. Dominik Möst (Tagungen)
Hanno Schülldorf (Finanzen)

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111th meeting of the GOR working group “Practice of Mathematical Optimization” on

Optimization in the era of GenAI

Friday, November, 27 2026: 09:00 – 14:00

09:00-09:15 Intro 2nd day (Jens Schulz)

09:15-09:45 ParetoChat: An LLM-Based Interface for Interactive Multi-Objective Optimization
Gökhan Ceyhan (Just Eat Takeaway)

09:45-10:15 From Prose to Solver: Turning Natural-Language Descriptions into Validated, Solver-Routable Optimization Tasks
Andreas Götz (OptWare)

10:15-10:45 ------Coffee break----------

10:45-11:15 What makes a problem agent-ready? Benchmark design for AI-generated algorithms
Adithya Kumar & Daniel Adams (The Innovation Game)

11:15-11:45 Making AI-Assisted PDE-Constrained Optimization Verifiable: Adjoint Derivation, Scientific Code Development, and a Multiphysics Biomedical Testbed
Vladislav Bukshtynov (University of Colorado Boulder)

11:45-12:15 Explainability in Optimization: Three Complementary Approaches
Michael Hartisch & Sebastian Merten (Uni Passau)

—Closing —

12:30-14:00 ---------- Lunch Break ----------

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