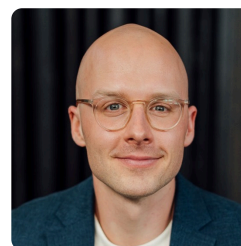


Dr. Tobias Vlček

Operations Research · Business Analytics · Simulation

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EDUCATION

Master of Arts in Higher Education

University of Hamburg

04/25 – today

PhD in Business Administration

University of Hamburg

Emphasis on operations research, graduated summa cum laude

Dissertation: Essays on Applied Optimization

11/19 – 08/23

Master of Science in Business Administration

University of Hamburg

Emphasis on logistics, average mark 1.59

Thesis: Minimizing Split-Deliveries through Improved Product-Warehouse Allocations

10/17 – 08/19

Bachelor of Science in Business Administration

University of Hamburg

Emphasis on logistics and marketing

Thesis: Forecasting Crude Oil Prices with Neural Networks

10/13 – 07/16

EXPERIENCE

Research Associate (Habilitation)

University of Hamburg

Pursuing the habilitation, project work and university lecturer at the Institute of Logistics, Transport and Production (Prof. Dr. Knut Haase)

01/24 – today

Founder

BeyondSimulations GmbH

Transfers optimization research into practice: mathematical programming, geo-spatial data analysis, and discrete-event simulation for industry and public-sector clients

Projects include periodic routing for nine mobile libraries serving over 1,100 stops, cutting driven distance by 13–33% per area, transport-demand simulation of the FIFA World Cup 2022 across up to 800,000 agents a day, and warehouse simulation across 1M+ SKUs

04/23 – today

Co-Founder

decorum SOLAR GmbH

Company specializing in the installation of small photovoltaic systems in Hamburg

Exit: shareholding sold, closing October 2026

10/23 – 10/26

Research Assistant

University of Hamburg

Project work and university teacher at the Institute of Logistics, Transport and Production (Prof. Dr. Knut Haase)

11/19 – 12/23

Earlier positions

Working Student, Digitization (IFB Hamburg) · Tour Guide (Waterkant) · Research Assistant (Hamburg Media School) · Tour Guide (Die Landpartie) · HR Researcher (Goodgame Studios)

04/14 – 09/19

PUBLICATIONS

Peer-Reviewed Publications

Dkaidik, U., Haase, K., Koch, M. & **Vlček, T.** (2026). *Mitigating Crowd Congestion at the Hajj: Lexicographic Minimax Path Assignment for the Mina Tent City*. Operations Research Proceedings 2026. Accepted, forthcoming

Cors, T., Fliedner, M., Haase, K. & **Vlček, T.** (2025). *Simulative assessment of patrol car allocation and response time*. European Journal of Operational Research, 324(1), 290–307. [doi:10.1016/j.ejor.2024.12.035](https://doi.org/10.1016/j.ejor.2024.12.035)

Vlček, T., Haase, K., Fliedner, M. & Cors, T. (2024). *Police service district planning*. OR Spectrum, 46, 1029–1061. [doi:10.1007/s00291-024-00745-3](https://doi.org/10.1007/s00291-024-00745-3)

Cors, T., **Vlček, T.**, Voß, S. & Jovanovic, R. (2023). *Fixed Set Search Applied to the Territory Design Problem*. *Metaheuristics*, 322–334. [doi:10.1007/978-3-031-26504-4_23](https://doi.org/10.1007/978-3-031-26504-4_23)

Vlček, T. (2023). *The Sales Force Deployment Problem for Teams of Sales Representatives Within Sales Territories*. *Operations Research Proceedings 2022*, 121–127. [doi:10.1007/978-3-031-24907-5_15](https://doi.org/10.1007/978-3-031-24907-5_15)

Preprints

Bonz, J., Craze, B., Haase, K., Halligan, M., Koch, M. & **Vlček, T.** (2024). *Controlling the Transport Demand of the FIFA World Cup 2022 in Qatar*. [doi:10.2139/ssrn.4740208](https://doi.org/10.2139/ssrn.4740208) SSRN preprint

Under Review

Schulz, A. & **Vlček, T.** (2026). *Evaluation of On-Demand Line-Based Bus Services*. Under review at *Transportation Science*

Working Papers

Vlček, T. & Haase, K. (2026). *The Periodic Vehicle Routing Problem with Balanced Visit Spacing: A Matheuristic and a Case Study in Mobile Library Routing*. To be submitted to *Computers & Operations Research*

Dkaidik, U., Haase, K., Koch, M. & **Vlček, T.** (2026). *Spatial Planning of the Mina Tent City: Crowd-Safe and Administrable Camp Assignments for the Hajj*. To be submitted to *European Journal of Operational Research*

Vlček, T. & Voigt, G. (2026). *Optimizing SKU-Warehouse Allocations to Minimize Split Parcels in E-Commerce Environments*. To be submitted to *Manufacturing & Service Operations Management*

Vlček, T., Dkaidik, U., Haase, K., Koch, M., Weygandt, A., Pagels, L. & Pape, J. (2025). *Network-Wide FIFO Inflow Control for Oversaturated Urban Rail Transit: A Cumulative-Count Optimization Framework*. [doi:10.2139/ssrn.5225835](https://doi.org/10.2139/ssrn.5225835) To be submitted to *IIE Transactions*

FUNDING & PROJECTS

Teaching grant, project “Mehr UDL in der Lehre”	2026
Universal Design for Learning in a first-year lecture, University of Hamburg · EUR 2,000	
Claussen-Simon-Stiftung project grant	2025
AI-supported Socratic tutoring in higher education · EUR 6,000	
Faculty research grant	2023
Optimization for international student allocation, University of Hamburg · EUR 5,000	

AWARDS

Teaching Award Winter 2025/26, 1st place	04/26
University of Hamburg Business School For the lecture “Applied Optimization”, category elective lecture	
Hamburg Teaching Prize 2025	2025
For the master lecture “Applied Optimization” · EUR 10,000	
Hamburg Teaching Prize 2024	06/24
For the bachelor lecture “Fundamentals of Operations Research” · EUR 10,000	
PhD awarded summa cum laude	08/23

TEACHING

Bachelor: Study & Business Basics	10/26 – 02/27
University of Hamburg · co-taught with Dr. Anja Günther · 1 SWS · ~400 students	
Master: Applied Optimization ↗	10/23 – 02/27
University of Hamburg · 4 semesters · 12 SWS total · ~50 students 1st place, Teaching Award Winter 2025/26 (University of Hamburg Business School) · Awarded the Hamburg Teaching Prize 2025	
Mathematics (Business Foundation Program) ↗	09/25 – 05/27
Kühne Logistics University · co-taught with Dr. Nikolai Heinrichs · 2 academic years · 480 contact hours total · ~12 students	
Bachelor: Programming with Python ↗	09/24 – 12/26
Kühne Logistics University · 3 semesters · 150 contact hours total · ~40 students	

	Master: Mathematics for Master Students ↗ Kühne Logistics University · 12 contact hours · ~150 students	09/26 – 10/26
	PhD: AI-Assisted Programming (Block Course) ↗ Helmut Schmidt University of the Armed Forces · 24 contact hours	08/26
	Bachelor: Produktionsmanagement ↗ University of Duisburg-Essen · 2 SWS · ~200 students	10/25 – 02/26
	Master: Programming (Everyday Decision-Making Algorithms) ↗ Kühne Logistics University · co-taught with Dr. Nils Roemer · 2 semesters · 90 contact hours total · ~30 students	10/24 – 12/25
	Bachelor: Management Science ↗ Kühne Logistics University · 50 contact hours	09/25 – 12/25
	Master: Produktionswirtschaft ↗ University of Duisburg-Essen · 2 SWS · ~100 students	04/25 – 07/25
	Master: Materiallogistik ↗ University of Duisburg-Essen · 2 SWS · ~100 students	04/25 – 07/25
	Bachelor: Fundamentals of Operations Research (Tutorials) University of Hamburg · 5 semesters · 48 SWS total	10/20 – 02/25
	Master: Logistics Management Helmut Schmidt University of the Armed Forces · 4 SWS	01/24 – 04/24
	Bachelor: Fundamentals of Operations Research (Lecture) ↗ University of Hamburg · 2 SWS · ~250 students Awarded the Hamburg Teaching Prize 2024	10/23 – 02/24
	Fundamentals of Business Administration (Workshops) Hamburg University of Technology · 4 semesters · 16 SWS total · ~120 students	10/17 – 07/19
	Fundamentals of Business Administration (Tutorials) Hamburg University of Technology · 2 semesters · 8 SWS total · ~100 students	04/15 – 02/16
SUPERVISION	Bachelor's and Master's theses University of Hamburg 34 theses completed since 2020, 15 of them master's theses. Currently roughly 10–15 per year plus seminar theses, on applied optimization, simulation, and analytics. Master's theses mostly with industry partners	2020 – today
INVITED GUEST LECTURES	Leadership & Coaching · Planning & Control BSP Business & Law School, Campus Hamburg (Prof. Dr. Johannes C. Schwarze) · with Dr. Nils Roemer · 4 workshops	05/24 – 05/26
TALKS & PRESENTATIONS	Evaluation of On-Demand Line-Based Bus Services QBWL 2026, Schloss Hirschberg, Beilngries	03/26
	"Is that still your own work?" Generative AI in assessed coursework (impulse and panel) ↗ KI Hands-on #8, DDLitLab / Hub for Crossdisciplinary Learning, University of Hamburg	09/25
	Controlling the Transport Demand of the FIFA World Cup 2022 in Qatar OR 2024, Munich	09/24
	Is AI the answer to the skilled-labour shortage? (panel) FILog / ddn Hamburg (KWB e.V.), Hamburg	09/24
	Simulating traffic flows at large-scale events (talk and panel) ↗ HEY/MOBILITY HAMBURG, Hamburg Chamber of Commerce	06/24
	Simulating the Transport Demand in Cities Hosting Large-Scale Events OR 2023, Hamburg	08/23

	Controlling Passenger Flows into Metro Systems to Mitigate Overcrowding during Large - Scale Events	06/23
	Working Group "Logistics and Transport", Frankfurt am Main	
	The Sales Force Deployment Problem for Teams of Sales Representatives Within Sales Territories	09/22
	OR 2022, Karlsruhe	
	Police Service District Planning	07/22
ACADEMIC SERVICE	EURO 2022, Aalto University, Helsinki	
	Strategic Emergency Service District Planning	03/21
	QBWL 2021 (online)	
	Reviewer	2025 – today
	European Journal of Operational Research · Transportation Research Part B · Socio-Economic Planning Sciences · International Journal of Health Geographics	
	Member of the Examination Board (Prüfungsausschuss)	2025 – today
	Faculty of Business, University of Hamburg	
	Coordinator, Bachelor mentoring program	2024 – today
	Business Administration, University of Hamburg · with Prof. Dr. Knut Haase · ~20 mentors · ~250 mentees	
	Co-organization, OR 2023 ↗	2023
SOFTWARE	International Conference on Operations Research (GOR), University of Hamburg	
	oshu.eu ↗	2026 – today
	EU-hosted platform for building AI chatbots grounded in one's own documents, websites, or course material. Socratic tutoring in higher education is one such application. Continuation of the Claussen-Simon-funded open-source project	
	fahrbuecher.de ↗	2025 – today
	Optimization software for mobile library routing, basis of the periodic vehicle routing case study	
SKILLS	Open e-learning platforms ↗	2023 – today
	Course websites combining theory, executable code, and self-assessment, such as Applied Optimization and Programming with Python	
	Languages German (native) · English (IELTS 8.0, C1) · Russian (advanced)	
	Programming Julia · Python · SQL · TypeScript · Rust · Gurobi · HiGHS · SCIP · OR-Tools · JuMP · GAMS · PyTorch · scikit-learn · LLM/RAG pipelines · PostgreSQL · PostGIS · QGIS · KNIME · Docker · Quarto · Makie · Svelte	