

EDUCATION

- 10.2024–
today **M.Sc. in Economics**, OVGU Magdeburg, Germany.
Specialization: Operations Research and Business Analytics,
Finance
- 10.2021–
08.2025 **PhD candidate**, OVGU Magdeburg, Germany.
Supervisor: Prof. Dr. Volker Kaibel
Thesis: “Short Paths for the Simplex Algorithm”
○ Grade: summa cum laude
- 10.2019–
09.2021 **M.Sc. in Mathematics**, OVGU Magdeburg, Germany.
Specialization: Computational Mathematics
Supervisor: Prof. Dr. Volker Kaibel
Thesis: “Polygon Extensions with Small Diameters”
○ DAAD scholarship
○ Best Graduate Math Student Award 2022
- 08.2020–
10.2020 **Internship**, OVGU Magdeburg, Germany.
Work on the research project “Optimization and Vehicular
Traffic Light Intersections” with Volkswagen AG.
- 09.2015–
06.2019 **B.Sc. in Applied Mathematics & Computer Science**,
BSU, Minsk, Belarus.
Specialization: Discrete Mathematics and Algorithmics
Supervisor: Yury Orlovich, PhD
Thesis: “Spanning Trees with Special Properties: Algorithmic
and Structural Aspects”
○ University entrance exam score: 390/400
○ Graduated with distinction

PUBLICATIONS

- Kaibel, V., & **Kukharenko, K.** (2024). Rock extensions with linear diameters. *SIAM Journal on Discrete Mathematics*, 38(4), 2982–3003. <https://doi.org/10.1137/23M1585878>
- Kukharenko, K.** & Sanità, L. (2024a). On the number of degenerate simplex pivots. In J. Vygen & J. Byrka (Eds.), *Integer programming and combinatorial optimization* (pp. 252–264). Springer Nature Switzerland.
- Orlovich, Y., **Kukharenko, K.**, Kaibel, V., & Skums, P. (2021). Scale-free spanning trees and their application in genomic epidemiology. *Journal of Computational Biology*, 28(10), 945–960. <https://doi.org/10.1089/cmb.2020.0500>

SELECTED TALKS

- Kukharenko, K.** & Sanità, L. (2024b, July). *On the number of degenerate simplex pivots* [The 25th Conference on Integer Programming and Combinatorial Optimization (IPCO 2024)].
- Kukharenko, K.** & Sanità, L. (2024c, July). *On the number of degenerate simplex pivots* [The 25th International Symposium on Mathematical Programming (ISMP 2024)].
- Kukharenko, K.** (2022, September). *Polytope extensions with small diameters* [The 25th Workshop on Future Research in Combinatorial Optimization (FRICO 2022)] [**Best Talk Award**].

SKILLS

- Mathematical optimization
- Operations research
- Foundations of CS & ML
- Coding in Python
- Analytical thinking & problem solving
- Teaching & presenting

MANAGERIAL EXPERIENCE

- 09.2023–
09.2024 **Main organizer** of the 27th Workshop on Future Research in Combinatorial Optimization, **FRICO 2024**. September 9–13, 2024, OVGU Magdeburg.
<https://frico2024.ovgu.de/>

TEACHING

- 10.2019–
02.2025 **Teaching Assistant**, OVGU Magdeburg

LANGUAGES

- English, German *Proficient*
- Belarusian, Russian *Native*