Matouš Šafránek

Born: 25 July 2003 Citizenship: Czech

Email: matous.safranek@gmail.com

Education, Research

- 2022 today Bachelor's degree program Mathematical modelling at Charles University, Prague.
 - 2024 Learning & research semester at Universität Konstanz under Mateusz Michałek with DAAD scholarship, studying tensors. Co-authored an article "Exact values of generic subrank"¹, published in Advances in Mathematics.
 - 2023 Student Faculty Grant: "FDTD Simulation of optical nanostructures".

Implementation of a Finite-difference time-domain simulation (1D and 2D) of electromagnetic waves in Python. Optimization for GPU with PyTorch. Data processing using Fourier analysis.

Awards

- 2021, 2022 International Mathematical Olympiad gold medal (10th place) & silver medal
 - 2022 International Linguistics Olympiad silver medal

Other Activities

- 2024 Programmer of a mobile game Timelike² developed in Godot & GDScript.
- 2022 today Co-organizer of a correspondence math competition for high school students MKS³.

Marking solutions, reviewing official solutions.

Co-authored an introductory text to analytic geometry⁴ (in Czech).

Co-organized 3 camps: Gave lectures, organized mathematical & other games.

¹https://doi.org/10.1016/j.aim.2025.110234

²https://timelike.eu

³http://mks.mff.cuni.cz

⁴https://prase.cz/archive/43/serial.pdf