

Stefan Ivanov

Sofia, Bulgaria

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Education

University of Cambridge (Gonville & Caius College)

10.2019 – 06.2023

MSci in Natural Sciences

Class I (87%)

Dissertation: Black holes in a new relativistic theory for modified Newtonian dynamics
Supervised by Dr Will Barker and Dr Amel Durakovic

MSci courses: RAC, PEP, BP / ASM, FSU, EXO / GPP

BA courses: Physics, Mathematics, Materials Science, Earth Sciences

Acad. Nikola Obreshkov High School, Burgas

09.2011 – 06.2019

High School Diploma

Grade 5.99/6.00

Main modules: Mathematics, Natural Sciences, English, Russian

Work Experience

Sofia Mathematics High School

10.2023 – 12.2024

Physics teacher to about 200 students, aged 13 to 19, in Bulgaria's most prestigious high school. I continue to lead extracurricular classes where I provide training for physics competitions and advise on university admissions.

Freelance Teaching in Physics and Astronomy

09.2015 –

I teach using original materials, from secondary school to second year university, with >1000^h of lecturing. Multiple students of mine have competed at International Science Olympiads.

Personal Skills

Languages: English (proficient), Russian (conversational), Bulgarian (native)

Computing: git, bash, Mathematica, \LaTeX , Asymptote

Programming: C++, Python

Outreach

High School Competitions

05.2019 –

Jury member for the Bulgarian Astronomy Olympiad; Deputy Leader for IOAA. In this capacity I've done lots of problem writing and editing (e.g. [1], [2]), and I've led classes at the annual training camps.

From 2019 until 2023, I managed Burgas Challenge, which at one point was the largest online Maths & Physics competition in Bulgaria.

I occasionally contribute problems for international-level competitions as well (e.g. [3]).

Invited Talks

01.2020 –

Popular science at regional forums. I have lectured on electronic circuits, photometry, undergraduate degrees in physics, and the scientific mindset.

Physics Handouts

09.2023 –

I've published hundreds of pages' worth of physics resources for free, directed towards talented high-schoolers. Hosted at <https://si335.github.io/teaching>.

Selected Awards

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| Nevill Mott prize for best theoretical physics project, University of Cambridge | 2023 |
| Senior scholarship, Gonville & Caius College | 2021 |
| Silver medal, International Geography Olympiad | 2019 |
| Gold medal, International Olympiad on Astronomy and Astrophysics | 2017, 2018, 2019 |
| Silver medal, European Physics Olympiad | 2018 |
| Gold medal (Absolute winner), International Astronomy Olympiad | 2015 |