

## Stefan Ivanov

Sofia, Bulgaria

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## Education

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### 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

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### 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 leading extracurricular classes where I provide training for physics competitions and advise on university admissions.

## Personal Skills

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Languages:

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

Computing:

git, bash, Mathematica,  $\LaTeX$ , Asymptote

Programming:

C++, Python

## Outreach

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### High School Competitions

05.2019 – 09.2025

I've served as a jury member for the Bulgarian Astronomy Olympiad. 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.

In 2025 I served as Leader for the Bulgarian team at IOAA, contributing to its best-ever performance (3 gold, 1 silver).

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 charge-coupled devices, photometry, the history of astronomy, getting a degree in physics, and the scientific method.

### Physics Handouts

09.2023 –

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

### Humanity's Last Exam

11.2024

I wrote difficult problems in physics and astronomy to be used in a cutting-edge [AI benchmark](#). I was awarded prize money for question quality and novelty.

## 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
Silver medal, European Physics Olympiad	2018
Gold medal (Absolute winner), International Astronomy Olympiad	2015