

# Yuriy Tumarkin

## Curriculum Vitae

Trinity College  
CB2 1TQ  
Cambridge, UK  
✉ yt354@cam.ac.uk

### Education

2021–2022 **MMath**, *Part III of the Mathematical Tripos*, University of Cambridge.

2018–2021 **Mathematics B.A.**, Trinity College, University of Cambridge,  
First Class Honours, 78%, rank 32/222.

Courses taken:

First-year courses:

Groups  
Analysis I  
Numbers & Sets  
Probability  
Vector Calculus  
Vectors & Matrices  
Differential Equations  
Dynamics & Relativity

Second-year courses:

Groups, Rings & Modules  
Analysis & Topology  
Metric & Topological Spaces  
Complex Analysis  
Geometry  
Linear Algebra  
Variational Principles  
Mathematical Methods  
Markov Chains  
Statistics  
Fluid Dynamics  
Electromagnetism  
Quantum Mechanics

Third-year courses:

Algebraic Topology  
Riemann Surfaces  
Differential Geometry  
Dynamical Systems  
Representation Theory  
Algebraic Geometry  
Galois Theory  
Number Fields  
Probability & Measure  
Quantum Information & Computation  
Number Theory  
Graph Theory

2012–2018 **Secondary School**, *Durham Johnston Comprehensive School, Durham, UK*,  
A levels: 5 A\* (Maths, Further Maths, Physics, History, Russian), 3 A (Chemistry,  
French, German).

### Mathematical activities

Aug-Oct 2020 **Summer research project supervised by Yuri Suris (TU Berlin)**, (*with Michael Schmalian*). We studied the geometry of discrete integrable systems generated by birational maps. Pre-print available at <https://arxiv.org/abs/2106.14301>.

July 2020 **Reading group**, 'The Knot Book' by Colin Adams.

Apr 2020 - **External secretary of Cambridge University Mathematical Society**,

Mar 2021 *Responsible for organising weekly talks by invited speakers.*

Oct-Nov 2019 **STIMULUS**, I taught six year 5 students (10 years old) introductory combinatorics, Cambridge, UK.

Sep 2019 **Reading group**, 'Lectures in Discrete Geometry' by Jiří Matoušek.

July 2019 **Team Guide at IMO**, Bath, UK.

Dec 2018 **Talk at Durham Johnston School mathematical society**, "Cutting Sequences and Beatty's Theorem", based on Sergei Tabachnikov's "Geometry and Billiards".

2016–2018 **Organiser of school mathematical society**, *Compiled problem sheets (available [here](#)) and led weekly sessions, Durham Johnston School.*

Participated in:

- 2017 **Modern Mathematics International Summer School for Students**, *Bremen, Germany*, incl. courses by Don Zagier, Bernd Sturmfels, Anton Zorich.
- 2016 **Contemporary Mathematics Summer School**, *Dubna, Russia*, incl. courses by Yulij Ilyashenko, Stanislav Smirnov, Victor Vassiliev, Alexey Sossinsky.
- 2015–2016 **Summer schools and training camps organised by UKMT (UK Mathematics Trust)**, *Leeds; Oxford; Cambridge*.
- 2010–2017 **Mathematical olympiads in the UK and Germany**, *Highest prizes 2010, 13-15, 17, full marks 2015, 17.*

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## Skills

Languages English, Russian (Native), German (approx C1), French (approx C1).  
Programming Sage, Python, LaTeX, Geogebra  
and software

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## Hobbies

Music Alto Saxophone: ABRSM Grade 8.  
Sports Ultimate Frisbee (Cambridge University team), Badminton, Table tennis.

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## Personal Info

Date of birth 21/05/2000.  
Citizenship Russia, UK.

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## References

**Yuri B. Suris** Supervisor of 2020 summer research project, [suris@math.tu-berlin.de](mailto:suris@math.tu-berlin.de).  
(TU Berlin)  
**Eric Lauga** Director of studies at Trinity, [e.lauga@damtp.cam.ac.uk](mailto:e.lauga@damtp.cam.ac.uk).  
(Cambridge)