

Yuriy Tumarkin

Curriculum Vitae

Institut für Mathematik
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2022 – present **PhD Student**, *University of Zurich*,
Supervisor: Corinna Ulcigrai.

Research interests: Teichmüller dynamics, translation surfaces, infinite genus surfaces, non-orientable surfaces.

Education

- 2021–2022 **MMath**, *Part III of the Mathematical Tripos, University of Cambridge*,
Distinction, 86%.
- 2018–2021 **Mathematics B.A.**, *Trinity College, University of Cambridge*,
Third year: First Class Honours, 78%.

Publications

- [1] Yuriy Tumarkin. “Ergodic measures for periodic type \mathbb{Z}^m -skew-products over Interval Exchange Transformations.” *Journal d’Analyse Mathématique* 155.2 (2025), pp. 699–741.
- [2] (With Misha Schmalian and Yuri B. Suris). “How one can repair non-integrable Kahan discretizations. II. A planar system with invariant curves of degree 6.” *Mathematical Physics, Analysis and Geometry* 24 (2021). arXiv: 2106.14301.

Talks

- Oct 2024 **Wandering seminar in dynamics, Torun, Poland**, *Invariant measures for periodic type skew-products over IETs*
- Sep 2024 **Workshop on geometric infinite surfaces, Leipzig, Germany**, *Invariant measures for the linear flow on infinite translation surfaces*
- Apr 2024 **Zurich Graduate Colloquium**, *What is ... a translation surface?*
- Oct 2023 **Zurich Dynamics Talks**, *Invariant measures for periodic type skew-products over IETs*
- Dec 2018 **Talk at Durham Johnston School mathematical society**, *Cutting Sequences and Beatty’s Theorem*

Teaching and supervision

- Spring 2025 **Teaching assistant**, *Billiard Dynamics*
- Autumn 2024 **Student seminar instructor**, *Combinatorics and Geometry*
- Spring 2024 **Teaching assistant**, *Analysis II*
- Autumn 2023 **Student seminar instructor**, *Hyperbolic Geometry*
- Spring 2023 **Teaching assistant**, *Elements of Geometry*
- Autumn 2022 **Teaching assistant**, *Elements of Topology*
- Supervision
- Feb – Oct 2024 **Master thesis co-supervisor**, *Tiling Billiards*, Sabrina Robbiani

Outreach

- Mar 2023 – present **Slow Chaos Exhibition at Science Pavilion UZH**, *Member of team giving regular public tours and workshops for school classes about billiards and slow chaos.*
- Oct – Nov 2019 **STIMULUS**, *I taught six year 5 students (10 years old) introductory combinatorics, Cambridge, UK.*
- July 2019 **Team Guide at IMO**, *Bath, UK*

Organisation roles

- July 2024 – present **Co-organiser of the Geometry Graduate Colloquium**, *Zurich.*
- Apr 2020 – Mar 2021 **External secretary of Cambridge University Mathematical Society**, *Responsible for organising weekly talks by invited speakers*
- 2016–2018 **Organiser of school mathematical society**, *Compiled problem sheets (available [here](#)) and led weekly sessions, Durham Johnston School*

Awards and prizes

- 2021 **Rouse Ball Mathematics Prize**, *For the essay “Groups acting on trees”*
- 2021–22 **Trinity College Senior Scholarship**
- 2019–20 **Trinity College Junior Scholarship**
- 2019, 2021, 2022 **Trinity College Examination Prizes**

Conferences and schools attended

- Jun 2025 Summer School on Dynamics and geometry in dimension 1, 2 and 3, CIRM, Luminy, France
- Apr 2025 Translation, Dilation, Affine and other Structures on Surfaces, Toulouse, France
- Oct 2024 Wandering seminar in dynamics, Torun, Poland
- Sep 2024 Workshop on geometric infinite surfaces, Leipzig, Germany
- Jul 2024 Hengstberger Symposium: Geometry and dynamics of surfaces beyond finite-type, Heilberg, Germany
- Jun 2024 New Frontiers in Parabolic Dynamics and Renormalization, Bologna, Italy
- Jun 2024 British Mathematical Colloquium, Manchester, UK
- Mar 2024 School on flat surfaces and interactions, Le Teich, France
- Dec 2023 Renormalization and Visualization in Geometry, Dynamics and number theory, CIRM, Luminy, France
- Oct 2023 Conference on Dynamics and Finance: from KAM Tori to ETFs, Trieste, Italy
- Jul 2023 School on Renormalization and Visualization for packing, Billiards and Surfaces, CIRM, Luminy, France
- Jul 2023 IMJ-PRG Summer school 2023: Microlocal and probabilistic methods in geometry and dynamics, Paris, France
- Jun 2023 Zurich Dynamics Conference, Zurich, Switzerland
- Jun 2023 Zurich Dynamics School, Zurich, Switzerland
- May 2023 Groups and Dynamics in Geometry, Ascona, Switzerland
- May 2023 Master Class: Low dimensional dynamical systems, Stockholm, Sweden
- Sep 2022 Combinatorics, Dynamics and Geometry on Moduli Spaces, CIRM, Luminy, France
- Sep 2022 Mini-workshop dynamics and Groups, Zurich, Switzerland

- 2017 Modern Mathematics International Summer School for Students, Bremen, Germany
2016 Contemporary Mathematics Summer School, Dubna, Russia

Skills

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

References

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(University of Zurich)