

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 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%.

Pre-prints

- [1] Yuriy Tumarkin. *Invariant sets for the wind-tree model*. 2025. arXiv: 2510 . 10760. URL: <https://arxiv.org/abs/2510.10760>.

Publications

- [2] 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. arXiv: 2312.13165.
- [3] (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

Dec 2025 **Geometry seminar, MPI MiS Leipzig, Germany**

Nov 2025 **Séminaire Rauzy, Aix-Marseille Université, France**

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

Supervision

Sep 2025 – present **Master thesis co-supervisor**, *Platonic surfaces*, Colin Meckes

Oct 2024 – present **Master thesis co-supervisor**, *Infinite translation surfaces*, Mathäus Nguyen

Feb – Oct 2024 **Master thesis co-supervisor**, *Tiling Billiards*, Sabrina Robbiani

Teaching

- Autumn 2025 **Teaching assistant**, *Foundations of Mathematics*
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*

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 (in English and German).
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 Dynamics and Rigidity: a Celebration of the Mathematics of Alex Eskin, Cetraro, Italy
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, Heidelberg, 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 (C1/C2), French (B2/C1).
- Programming and software Sage, Python, Geogebra

References

- Corinna Ulcigrai** corinna.ulcigrai@math.uzh.ch.
(University of
Zurich)
- Pascal Hubert** pascal.hubert@univ-amu.fr.
(CIRM/Aix-
Marseille University)