

LENA WURZINGER

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lenawurzinger.github.io

EDUCATION

Mathematics PhD at Institute of Science and Technology Austria (ISTA) *since Sep. 2023*

- Dissertation supervisor: Tim Browning
- Research in analytic number theory: rational points on varieties, geometry of numbers, circle method

Mathematics MSc at Graz University of Technology & University of Graz *Jan. 2022–Jul. 2023*

- Master's thesis: "Sumsets in multiplicatively defined sets", supervised by Christian Elsholtz
- Research in additive combinatorics: sieve methods, sumset bounds, character sum estimates

Mathematics BSc at Graz University of Technology & University of Graz *Oct. 2018–Jan. 2022*

- Bachelor's thesis: "The Riemann zeta function and the prime number theorem", supervised by Marc Technau

AWARDS

Early Student Award *2022*

- Awarded by the Austrian Mathematical Society (ÖMG) to excellent mathematics students in Austria

Merit Scholarship *2020–2022*

- Awarded by University of Graz (2020, 2021) & TU Graz (2022) for excellent academic achievements

PUBLICATIONS

- *Sumset growth in progression-free sets*, with C. Elsholtz and I. Ruzsa, *Acta Arith.*, **220** (2025), no. 3, 289–303.
- *Sumsets in the set of squares*, with C. Elsholtz, *Q. J. Math.* **75** (2024), no. 4, 1243–1254.

CONFERENCE TALKS

- April 2026, Cheltenham, contributed 20 minute talk at "WINGS 2026": *Towards lattices of fixed determinant*.
- February 2026, Strobl am Wolfgangsee (bifeb), contributed 5 minute talk at "ELAZ 2026": *The arithmetic of cyclic covers in many variables*.
- July 2025, Klosterneuburg (ISTA), talk at "Graz ISTA Number Theory Day": *Towards lattices of fixed determinant*.
- June 2025, Marseille (CIRM), invited talk at "Nombres premiers et aléa arithmétique": *Sumset growth in progression-free sets*.
- September 2023, Graz (University of Graz), contributed talk at "ÖMG Tagung 2023": *Sumsets in the set of squares*.

ACADEMIC SERVICE

Organiser of Mathematics In eXchange (MIX) colloquium *since 2024*

- Monthly colloquium for PhD students at ISTA (with D. Holmes, O. Kolupaiev, and A. Zanolì), biannually joint colloquium with the Vienna School of Mathematics (VSM PhD colloquia)
- Website: <https://sites.google.com/view/mixcolloquium/>

Organiser of Graz ISTA Number Theory Days *since 2024*

- Biannual joint seminar of ISTA and TU Graz (with T. Browning, C. Frei, and N. Rome)
- Website: <https://sites.google.com/view/gntd/>

Organiser of ISTern Math Track Session – Flash Talk Competition *since 2024*

- Annual event for mathematics summer interns at ISTA (with MIX team and ISTA grad school)

Organiser of Discrete Analysis Days *since 2025*

- Seminar at the intersection of combinatorics and number theory (with T. Browning and M. Kwan)
- Website: <https://discreteanalysis.pages.ist.ac.at/>

Referee for *Acta Arith.*, *Proc. Amer. Math. Soc.*

TEACHING EXPERIENCE

Teaching assistance at ISTA

- Some Applications of p -adic Integration to Geometry and Arithmetics *2025*

Teaching assistance at Erdős Center

- Recitation at the Summer School: Additive Combinatorics *Jun. 2024*

Teaching assistance at Graz University of Technology

- Introduction to University Mathematics *2022*
- Mathematics for Chemistry I *2021*
- Discrete Mathematics for Computer Science *2021, 2022*
- Numerical Computation and Linear Algebra for Computer Science *2019, 2020, 2022*

LANGUAGES

English (C1), German (native), French (B1), Russian (A2), Spanish (A2), Latin (basic knowledge)