

Larissa Kroell

PERSONAL DATA

WEBSITE: www.larissakroell.ca
EMAIL: lkroell@uwaterloo.ca
LANGUAGES: German (native), English (fluent)

EDUCATION

SEPTEMBER 2021 | PhD Candidate in PURE MATHEMATICS, **University of Waterloo**
- PRESENT | Supervisor: Matthew Kennedy

SEPTEMBER 2020 | Master of Mathematics in PURE MATHEMATICS, **University of Waterloo**
- AUGUST 2021 | Project: Quantum Graphs | Supervisor: Matthew Kennedy

OCTOBER 2016 | Bachelor of Science in PHYSICS, **University of Innsbruck**
- AUGUST 2020 | Thesis: Steady-state probability distribution of active Brownian particles in confining potentials | Supervisor: Thomas Franosch

OCTOBER 2016 | Bachelor of Science in MATHEMATICS, **University of Innsbruck**
- JUNE 2020 | Thesis: Lipschitz-free Banach spaces | Supervisor: Christian Bargetz

GRANTS & SCHOLARSHIPS

2023-2026 **NSERC Canada Graduate Scholarship – Doctoral**, \$105,000
2023 **Ontario Graduate Scholarship** (declined), \$15,000
2021 **Provost Doctoral Entrance Award for Women**, University of Waterloo, \$5000
2018 **Leistungsstipendium (Achievement-based scholarship)**, University of Innsbruck, 750€
2017 **Leistungsstipendium (Achievement-based scholarship)**, University of Innsbruck, 1178€

AWARDS

2023 **Graduate Teaching Assistant Award**, Department of Pure Mathematics, University of Waterloo
2022 **Women in Math DRP Mentorship Award**, University of Waterloo, \$400
2018 **Early Student Award**, Austrian Mathematics Society

PUBLICATIONS

Foley, A.M., Kazdan, J., Kröll, L., Martínez Alberga, S., Melnyk, O., Tennenbaum, A., Spiders and their Kin: An Investigation of Stanley's Chromatic Symmetric Function for Spiders and Related Graphs. *Graphs and Combinatorics* 37, 87-110 (2021). <https://doi.org/10.1007/s00373-020-02230-4>

RESEARCH EXPERIENCE

SUMMER 2018 | **Fields Undergraduate Summer Research Program**, The Fields Institute for Research in Mathematical Sciences
Project: Project: Graphs, Chromatic Symmetric Functions, and Positivity | Supervisor: Angèle Foley

TALKS

- NOVEMBER 10th 2023 Title: **Injective Envelopes for Partial Actions on C^* -algebras**
The Fields Institute for Research in Mathematical Sciences, Toronto
Twinned Conference on C^ -Algebras and Tensor Categories* Lightning Talk (contributed)
- SEPTEMBER 10th 2023 Title: **Towards a dynamical characterization of the intersection property for partial actions**, AMS Sectional meeting, Buffalo, *Recent developments in operator algebras and quantum information theory* (invited)
- DECEMBER 4th 2022 Title: **An operator system view on regular quantum graphs**
CMS Winter meeting, Toronto, *Quantum Information Session* (invited)
- AUGUST 8th 2022 Title: **Quantum Graphs: Several Ways to Quantize a Graph**
YMC*A, University of Oslo, Lightning Talk (contributed)
- MARCH 2nd 2022 Title: **Different Perspectives on Quantum Graphs**
Arizona State University and Embry-Riddle Aeronautical University C^* -seminar, online (invited)
- JULY 30th 2021 Title: **FUSRP Research Series: From Fields to Quantum Graphs**
The Fields Institute for Research in Mathematical Sciences, online (invited)

TEACHING EXPERIENCE

- 2024 **Instructor**, MATH138, Calculus II for Honours Mathematics, University of Waterloo
Duties: Delivering lectures, creating assessments, grading exams
- 2020 **Teaching Assistant**, University of Waterloo
- PRESENT *Selected duties:* Grading assignments, designing practice exams, holding office hours, holding tutorials, monitoring an online forum, developing a marking scheme and writing solutions
Courses: PMATH453/753, PMATH450/650, PMATH352, PMATH351, PMATH333, PMATH 331, MATH674, MATH600, MATH228, MATH237, MATH146, MATH138, MATH137
- 2018-2020 **Teaching Assistant**, University of Innsbruck
Selected duties: Monitoring an online forum, conducting and grading weekly problem solving sessions, holding tutorials
Courses: Analysis II, Analysis I, Calculus I
- 2019 **First-year advisor**, University of Innsbruck
Duties: Helped students with their homework in calculus, analysis, and linear algebra

SERVICE

- AUGUST 2023 **Board member**, Operator Algebra Mentor Network
-present
- SEPTEMBER 2022 **Pure Mathematics Graduate Student Representative**, University of Waterloo
- present
- SEPTEMBER 2022 **Co-organizer, Pure Mathematics Graduate Student Colloquium**, University of Waterloo
- present
- SPRING 2022 **Mentor for undergraduate directed reading program**, University of Waterloo
Project: Positive definite matrices
- JULY 2019 **Student Representative for Natural Sciences and Mathematics**, University of Innsbruck
-JULY 2020
- JULY 2017 **President, Student representatives for Mathematics**, University of Innsbruck
- JULY 2019