

Larissa Kroell

PERSONAL DATA

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

EDUCATION

SEPTEMBER 2021 -PRESENT	PhD Candidate in PURE MATHEMATICS, University of Waterloo Supervisor: Matthew Kennedy
SEPTEMBER 2020 - AUGUST 2021	Master of Mathematics in PURE MATHEMATICS, University of Waterloo Project: Quantum Graphs Supervisor: Matthew Kennedy
OCTOBER 2016 - AUGUST 2020	Bachelor of Science in PHYSICS, University of Innsbruck Thesis: Steady-state probability distribution of active Brownian particles in confining potentials Supervisor: Thomas Franosch
OCTOBER 2016 - JUNE 2020	Bachelor of Science in MATHEMATICS, University of Innsbruck Thesis: Lipschitz-free Banach spaces Supervisor: Christian Bargetz

GRANTS & SCHOLARSHIPS

2023-2026	NSERC Canada Graduate Scholarship – Doctoral , \$113,333
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 Inns- bruck, 750€
2017	Leistungsstipendium (Achievement-based scholarship) , University of Inns- bruck, 1178€

AWARDS

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

PUBLICATIONS

In preparation

1. Kennedy, M., **Kroell, L.**, and Sehnem, C., The ideal intersection property for partial C^* -dynamical systems.
2. Kennedy, M., **Kroell, L.**, and Sehnem, C., Primality and the ideal intersection property for reduced crossed products.

Published

3. Foley, A.M., Kazdan, J., **Kröll, L.**, Martínez Alberga, S., Melnyk, O., Tenenbaum, 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). DOI: [10.1007/s00373-020-02230-4](https://doi.org/10.1007/s00373-020-02230-4)

TALKS

Invited

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| NOVEMBER 2024 | 8th | Analysis Seminar , <i>New Mexico State University</i> , Title: The ideal intersection property of partial reduced crossed products, online |
| NOVEMBER 2024 | 5th | Cartan Subalgebras in Operator Algebras, and Topological Full Groups , <i>Banff International Research Station</i> , Title: The ideal intersection property of partial reduced crossed products |
| OCTOBER 2024 | 29th | Quantum Symmetry Seminar , <i>Ohio State University</i> , Title: The ideal intersection property of partial reduced crossed products, online |
| SEPTEMBER 2024 | 23rd | Group Operator Algebras: Classification, Structure and Rigidity , <i>Banff International Research Station</i> , Title: The ideal intersection property of partial reduced crossed products, Lightning Talk |
| APRIL 2024 | 10th | Workshop: Ideal Structure of C*-algebras from Dynamics and Groups , <i>FAU Erlangen-Nuernberg</i> , Title: The intersection property of partial reduced crossed products |
| SEPTEMBER 2023 | 10th | American Mathematical Society Sectional Meeting , <i>Recent developments in operator algebras and quantum information theory</i> , Buffalo, Title: Towards a dynamical characterization of the intersection property for partial actions |
| DECEMBER 2022 | 4th | Canadian Mathematical Society Winter Meeting , <i>Quantum Information Session</i> , Toronto, Title: An operator system view on regular quantum graphs |
| MARCH 2022 | 2nd | C*-seminar , <i>Arizona State University and Embry-Riddle Aeronautical University</i> , Title: Different Perspectives on Quantum Graphs, online |

Contributed:

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| JUNE 2024 | 3rd | 44th Annual Great Plains Operator Theory Symposium , <i>University of Nebraska – Lincoln</i> , Title: The intersection property of partial reduced crossed products |
| NOVEMBER 2023 | 10th | Twinned Conference on C*-Algebras and Tensor Categories , <i>The Fields Institute for Research in Mathematical Sciences</i> , Toronto, Title: Injective Envelopes for Partial Actions on C*-algebras, Lightning Talk |
| AUGUST 2022 | 8th | Young Mathematicians in C*-algebras , <i>University of Oslo</i> , Title: Quantum Graphs: Several Ways to Quantize a Graph, Lightning Talk |

TEACHING EXPERIENCE

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| 2024 | Instructor , MATH138, Calculus II for Honours Mathematics, University of Waterloo
<i>Duties:</i> Delivering lectures, creating assessments, grading exams |
| 2020 | Teaching Assistant , University of Waterloo |

-PRESENT	<p><i>Selected duties:</i> Grading assignments, designing practice exams, holding office hours, holding tutorials, monitoring an online forum, developing a marking scheme and writing solutions</p> <p><i>Courses:</i> PMATH453/753, PMATH450/650, PMATH352, PMATH351, PMATH333, PMATH 331, MATH674, MATH600, MATH647, MATH228, MATH237, MATH146, MATH138, MATH137, MATH124</p>
2018	Teaching Assistant , University of Innsbruck
-2020	<p><i>Selected duties:</i> Monitoring an online forum, conducting and grading weekly problem solving sessions, holding tutorials</p> <p><i>Courses:</i> Analysis II, Analysis I, Calculus I</p>
2019	<p>First-year advisor, University of Innsbruck</p> <p><i>Duties:</i> Helped students with their homework in calculus, analysis, and linear algebra</p>

PROFESSIONAL DEVELOPMENT

2023-	Certificate of University Teaching , University of Waterloo
-PRESENT	Research Project: <i>Proof Comprehension in Undergraduate Mathematics</i>
2023	Fundamentals in University Teaching , University of Waterloo

SERVICE

AUGUST 2023 - PRESENT	Board member , Operator Algebra Mentor Network
SPRING 2024	Local organizing committee member , Ontario Graduate Mathematics Conference, University of Waterloo
2022 - 2024	Pure Mathematics Graduate Student Representative , University of Waterloo
2022 - 2024	Co-organizer , Pure Mathematics Graduate Student Colloquium , University of Waterloo
SPRING 2022	Mentor for undergraduate directed reading program , University of Waterloo, Project: Positive definite matrices
2019 -2020	Student Representative for Natural Sciences and Mathematics , University of Innsbruck
2017 - 2019	President , Student representatives for Mathematics , University of Innsbruck