Dr. Alice Lacaze-Masmonteil

Personal Information

Nationalities:	Canadian and French
Current address:	3737 Wascana Pkwy, Regina, SK S4S 0A2, Canada
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Pronouns:	She/her/hers

Academic Positions

University of Regina, Regina, SK, Canada *Pacific Institute for the Mathematical Sciences (PIMS) - Centre National de la Recherche Scientifique (CNRS) Post-doctoral Fellow* Advisor: Karen Meagher	2024 - 2026
Monash University, Melbourne, VIC, Australia *Visiting Ph.D. Student*	2023

Education

University of Ottawa, Ottawa, ON, Canada Doctorate of Philosophy in Mathematics and Statistics Advisor: Mateja Šajna Thesis title: Certain resolvable directed cycle decompositions of directed graphs	2020 - 2024
Acadia University, Wolfville, NS, Canada Master's of Science Advisor: Nancy E. Clarke Thesis title: Some problems on the game of Ambush Cops and Robbers	2017 - 2019
Acadia University, Wolfville, NS, Canada Bachelor of Pure and Applied Sciences with Honours	2012 - 2017

Publications

Journal Articles Published

[1] **A. Lacaze-Masmonteil**, Completing the solution of the directed Oberwolfach problem with cycles of equal length, *Journal of Combinatorial Designs*, **32** (2024), 5-30.

Journal Articles Under Review

[2] **A. Lacaze-Masmonteil**, Hamiltonian decompositions of the wreath product of hamiltonian decomposable digraphs, submitted December 2024.

[3] **A. Lacaze-Masmonteil**, Decompositions of the wreath product of certain directed graphs into directed hamiltonian cycles, submitted October 2024.

[4] D. Horsley and **A. Lacaze-Masmonteil**, Completing the solution of the directed Oberwolfach problem with two tables, submitted August 2024.

Fellowships, Scholarships, and Prizes

All monetary values are in Canadian dollars (CAD).

PIMS-CNRS Postdoctoral Fellowship Valued at $30,000 per year for two years with a contribution from the University of Regina and Prof. K. Meagher of $32,000 per year.	2024 - 2026

University of Ottawa Department of Mathematics and Statistics Outstanding Student Paper Prize	2023

This prize is awarded annually to the best paper published by a student in the department.

Peter Rodney Memorial Book Prize	2023

Awarded to the best student talk given at the 27th Ontario Combinatorics Workshop.

University of Ottawa Department of Mathematics and Statistics André Dabrowski Scholarship Fund	2023

Valued at $1,400. Awarded to a student that demonstrated qualities of leadership.

Natural Sciences and Engineering Research Council of Canada (NSERC) Michael Smith Foreign Study Supplement	2023

Valued at $6,000. Awarded to fund visit to Monash University in Melbourne Australia.

NSERC Canada Graduate Scholarship - Doctoral	2021 - 2024

Valued at $35,000 per year for a duration of three years.

Catherine Stanley Memorial Scholarship	2018

Awarded to a student that demonstrated excellence as a teaching assistant.

NSERC Canada Graduate Scholarship - Master's program	2017 - 2018

Valued at $17,500 for a duration of one year.

Acadia Undergraduate Mathematics Competition: Best Paper	2016

PRESENTATIONS

Conference Presentations

- *Completing the solution to the directed Oberwolfach problem with two tables*, Scientific Session on Design Theory: 2024 Canadian Mathematical Society Winter Meeting, Vancouver, BC, (December 2024).
- *Hamiltonian decompositions of the wreath product of two hamiltonian decomposable directed graphs*, BIRS Movement and Symmetry in Graphs Workshop, Banff, AB, (November 2024).
- *Hamiltonian decompositions of the wreath product of two hamiltonian decomposable directed graphs*, Women in Combinatorics Virtual Conference, Online, (July 2024).
- *On the directed Oberwolfach problem with two tables*, 45th Australasian Combinatorics Conference, Perth, WA, Australia, (December 2023).
- *Resolution of the directed Oberwolfach problem with cycles of uniform length*, 10th Slovenian Conference on Graph Theory: Combinatorial Designs and their Applications Mini Symposium, Kranjska Gora, Slovenia, (June 2023).
- *Resolution of the directed Oberwolfach problem with cycles of uniform length*, 2023 Canadian Mathematical Society Summer Meeting: Design Theory and Graph Decomposition Session, Ottawa, ON, Canada, (June 2023).
- *Resolution of the directed Oberwolfach problem with cycles of uniform length*, 27th Ontario Combinatorics Workshop, Ottawa, ON, Canada, (May 2023).
- *Resolvable directed cycle decompositions of the complete symmetric digraph*, 2022 Canadian Mathematical Society Summer Meeting: Design Theory and Graph Decomposition Session, St. John's, NL, Canada, (June 2022).
- *Resolvable directed cycle decompositions of the complete symmetric digraph*, 26th Ontario Combinatorics Workshop, Waterloo, ON, Canada, (May 2022).
- *The game of Ambush Cops and Robbers played on chordal graphs and outerplanar graphs*, 25th Ontario Combinatorics Workshop, Online, (May 2021).
- *The game of Ambush Cops and Robbers played on the products of graphs*, 2018 Canadian Mathematical Society Winter Meeting: Student Committee Research Session, Vancouver, BC, Canada, (December 2018).
- *On the cordiality of various unions of complete graphs*, 12th East Coast Combinatorics Conference, Saint John, NB, Canada, (July 2017).

Seminars

- *On the two-table case of the directed Oberwolfach problem*, AARMS Atlantic Graph Theory Seminar, Online, (November 2024).
- *On recent advances on the directed Oberwolfach problem*, University of Lethbridge PIMS-Lethbridge Number Theory and Combinatorics seminar, Lethbridge, AB, (October 2024).
- *Adapting Häggkvist-style constructions to the directed Oberwolfach problem*, Emergent Research: The PIMS Postdoctoral Fellow Seminar, Online, (October 2024).
- *On the directed Oberwolfach problem*, Monash University Discrete Mathematics Seminar, Melbourne, VIC, Australia, (October 2023).

Teaching

University of Regina, Regina, SK, Canada
Sessional Instructor
Courses (taught in English):

- MATH 223: Introduction to Abstract Algebra (35 students) — Winter 2025
- MATH 122: Linear Algebra 1 (51 students) — Fall 2024

University of Ottawa, Ottawa, ON, Canada
Part-time Professor
Courses (taught in French):

- MAT 1741: Introduction to Linear Algebra (170 students) — Winter 2023

University of Ottawa, Ottawa, ON, Canada
Laboratory Teaching Assistant and Tutor
Courses (taught in French):

- MAT 1741: Introduction to Linear Algebra — Fall 2021 and Fall 2020
- MAT 1762: Mathematical Reasoning and Proofs — Fall 2021
- Mathematics and Statistics Help Center — Summer 2021 and Winter 2020

Acadia University, Wolfville, NS, Canada
Laboratory Instructor
Courses (taught in English):

- MATH 2243: Applied Statistics for Life Sciences I — Fall 2017
- MATH 2253: Applied Statistics for Life Sciences II — Winter 2017

Acadia University, Wolfville, NS, Canada
Laboratory Teaching Assistant
Courses (taught in English):

- MATH 1013: Introductory Calculus I — Fall 2018 and Fall 2017
- MATH 1023: Introductory Calculus II — Winter 2017
- MATH 2213: Applied Probability for Science and Engineering I — Fall 2018 and Fall 2016
- MATH 2243: Applied Statistics for Life Sciences I — Fall 2018
- Mathematics and Statistics Help Center — Fall 2018, Winter 2018, Fall 2017, Winter 2017

Academic Service

Referee for the following journals and publications:

- Discussiones Mathematicae Graph Theory.

- Bulletin of the Institute of Combinatorics and its Applications.

- Springer Proceedings in Mathematics & Statistics.

University of Regina Day - Mathematics Outreach *Presenter*	Dec. 2024
Canadian Open Mathematical Competition *Grader*	Nov. 2024
Women in Combinatorics Virtual Conference *Combinatorial Designs Session co-organizer*	July 2024
2023 Canadian Mathematical Society Summer Meeting *Design Theory and Graph Decomposition Session co-organizer*	June 2023
Canadian Mathematical Society Student Committee *Chair*	2022 - 2024
University of Ottawa Mathematics and Statistics Graduate Student Association Executive *President*	2022 - 2023
16th Ottawa Mathematics and Statistics Conference *Lead organizer*	2022 - 2023
27th Ontario Combinatorics Workshop *Co-organizer*	2022 - 2023
15th Ottawa Mathematics and Statistics Conference *Co-organizer*	2021 - 2022
Canadian Mathematical Society Student Committee *Member*	2021 - 2022
University of Ottawa Mathematics and Statistics Graduate Student Association Executive *Vice-president external*	2020 - 2022
14th Ottawa Mathematics and Statistics Conference *Co-organizer*	2020 - 2021
Acadia's 5th Student Research and Innovation Conference *Co-organizer*	2017 - 2018
Acadia Graduate Student Association Executive Committee *Science representative*	2017 - 2018
Acadia Math Outreach *Student volunteer*	2016 - 2018
Acadia Math Society *President*	2015 - 2016

Programing Languages

Intermediate: Python, R, HTML, LaTeX.

Beginner: GAP.