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

2024 - 2026

Pacific Institute for the Mathematical Sciences (PIMS) - Centre National

de la Recherche Scientifique (CNRS) Post-doctoral Fellow

Advisor: Karen Meagher

Monash University, Melbourne, VIC, Australia

2023

Visiting Ph.D. Student

EDUCATION

University of Ottawa, Ottawa, ON, Canada

2020 - 2024

Doctorate of Philosophy in Mathematics and Statistics

Advisor: Mateja Šajna

Thesis title: Certain resolvable directed cycle decompositions of

directed graphs

Acadia University, Wolfville, NS, Canada

2017 - 2019

Master's of Science

Acadia University, Wolfville, NS, Canada

2012 - 2017

Bachelor of Pure and Applied Sciences with Honours

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] D. Horsley and A. Lacaze-Masmonteil, Completing the solution of the directed Oberwolfach problem with two tables, submitted on August 2024.
- [3] A. Lacaze-Masmonteil, Decompositions of the wreath product of certain directed graphs into directed hamiltonian cycles, submitted on October 2024.

In Progress

[4] A. Lacaze-Masmonteil, Decompositions of the wreath product of hamiltonian decomposable directed graphs into directed hamiltonian cycles.

Fellowships, Scholarships, and Prizes

All monetary values are in Canadian dollars (CAD). 2024 - 2026 • 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. • University of Ottawa Department of Mathematics and Statistics Out-2023 standing Student Paper Prize This prize is awarded annually by the Departmental Teaching Personnel Committee to the best paper published by a student. • 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 2023 Dabrowski Scholarship Fund Valued at \$1,400. Awarded annually to a student who has demonstrated qualities of leadership. • Natural Sciences and Engineering Research Council of Canada (NSERC) 2023 Michael Smith Foreign Study Supplement Valued at \$6,000. Awarded to fund research 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 Valued at \$1,000. Awarded to a student that has demonstrated excellence and enthusiasm as a department 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

Research Talks

- 1. Hamiltonian decompositions of products of directed graphs, PIMS- Oct. 2024 Lethbridge Number Theory and Combinatorics seminar, University of Lethbridge
- 2. Adapting Häggkvist-style constructions to the directed Oberwolfach Problem, Emergent Research: The PIMS Postdoctoral Fellow Seminar, Online

- 3. Hamiltonian decompositions of the wreath product of two hamiltonian July 2024 decomposable directed graphs, Women in Combinatorics Virtual Conference, Online
- 4. On the directed Oberwolfach problem with two tables, 45th Australasian Dec. 2023 Combinatorics Conference, Perth, WA, Australia
- 5. On the directed Oberwolfach problem, Monash University Discrete Oct. 2023 Mathematics Seminar, Melbourne, VIC, Australia
- 6. Resolution of the directed Oberwolfach problem with cycles of uniform June 2023 length, 10th Slovenian Conference on Graph Theory: Combinatorial Designs and their Applications Mini Symposium, Kranjska Gora, Slovenia
- 7. Resolution of the directed Oberwolfach problem with cycles of uniform June 2023 length, 2023 Canadian Mathematical Society Summer Meeting: Design Theory and Graph Decomposition Session, Ottawa, ON, Canada
- 8. Resolution of the directed Oberwolfach problem with cycles of uniform May 2023 length, 27th Ontario Combinatorics Workshop, Ottawa, ON, Canada
- 9. 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
- 10. Resolvable directed cycle decompositions of the complete symmetric digraph, 26th Ontario Combinatorics Workshop, Waterloo, ON, Canada
- 11. The game of Ambush Cops and Robbers played on chordal graphs and May 2021 outerplanar graphs, 25th Ontario Combinatorics Workshop, Online
- 12. The game of Ambush Cops and Robbers played on the products of Dec. 2018 graphs, 2018 Canadian Mathematical Society Winter Meeting: Student Committee Research Session, Vancouver, BC, Canada
- 13. On the cordiality of various unions of complete graphs, 12th East Coast Jul. 2017 Combinatorics Conference, Saint John, NB, Canada

Teaching Experience

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

• 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* Courses (taught in French):

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

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

Fall 2018
Fall 2018
Fall 2018
Fall 2018
Winter 2018
Fall 2017
Fall 2017
Fall 2017
Winter 2017
Winter 2017
Winter 2017
Fall 2016
Fall 2016
Winter 2016

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.

Women in Combinatorics Virtual Conference Combinatorial Designs Session co-organizer	2024
2023 Canadian Mathematical Society Summer Meeting Design Theory and Graph Decomposition Session co-organizer	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