

DR. ALICE LACAZE-MASMONTEIL

PERSONAL INFORMATION

NATIONALITIES: Canadian and French
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PRONOUNS: She/her

ACADEMIC POSITION

University of Regina, Regina, SK, Canada 2024 - 2026
*Pacific Institute for the Mathematical Sciences (PIMS) - Centre National
de Recherche Scientifique (CNRS) Postdoctoral Fellow*
Advisor: Karen Meagher

EDUCATION

University of Ottawa, Ottawa, ON, Canada 2020 - 2024
Doctorate of Philosophy
Advisor: Mateja Šajna
Thesis title: Certain resolvable directed cycle decompositions of
directed graphs
Acadia University, Wolfville, NS, Canada 2017 - 2019
Master's of Science
Advisor: Nancy E. Clarke
Thesis title: Some problems on the game of Ambush Cops and Robbers
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 uniform 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, Decomposition 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).

- *PIMS-CNRS Postdoctoral Fellowship* 2024 - 2026
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 Outstanding Student Paper Prize* 2023
This prize is awarded annually by the Departmental Teaching Personnel Committee to the best paper published by a student.
- *University of Ottawa Department of Mathematics and Statistics André Dabrowski Scholarship Fund* 2023
Valued at \$1,400. Awarded annually to a student who has demonstrated qualities of leadership.
- *Peter Rodney Memorial Book Prize* 2023
Awarded to the best student talk given at the 27th Ontario Combinatorics Workshop.
- *Natural Sciences and Engineering Research Council of Canada (NSERC) Michael Smith Foreign Study Supplement* 2023
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* 2017 - 2018
Valued at \$17,500 for a duration of one year.
- *Acadia Undergraduate Mathematics Competition: Best Paper* 2016

RESEARCH TALKS

1. *Adapting Häggkvist-style constructions to the directed Oberwolfach problem*, Emergent Research: The PIMS Postdoctoral Fellow Seminar, Online Oct. 2024
2. *Hamiltonian decompositions of the wreath product of two hamiltonian decomposable directed graphs*, Women in Combinatorics Virtual Conference, Online July 2024

3. *On the directed Oberwolfach problem with two tables*, 45th Australasian Combinatorics Conference, Perth, WA, Australia Dec. 2023
4. *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
5. *On the directed Oberwolfach problem*, Monash University Discrete Mathematics Seminar, Melbourne, VIC, Australia Oct. 2023
6. *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
7. *Resolution of the directed Oberwolfach problem with cycles of uniform length*, 27th Ontario Combinatorics Workshop, Ottawa, ON, Canada May 2023
8. *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
9. *Resolvable directed cycle decompositions of the complete symmetric digraph*, 26th Ontario Combinatorics Workshop, Waterloo, ON, Canada May 2022
10. *The game of Ambush Cops and Robbers played on chordal graphs and outerplanar graphs*, 25th Ontario Combinatorics Workshop, Online May 2021
11. *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 Dec. 2018
12. *On the cordiality of various unions of complete graphs*, 12th East Coast Combinatorics Conference, Saint John, NB, Canada Jul. 2017

TEACHING EXPERIENCE

University of Regina, Regina, SK, Canada

Sessional Instructor

Courses (taught in English):

- MATH 122: Introduction to Linear Algebra 1 (51 students) Fall 2024

University of Ottawa, Ottawa, ON, Canada

Part-time professor

Courses (taught in French):

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

University of Ottawa, Ottawa, ON, Canada

Laboratory Teaching assistant

Courses (taught in French):

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

Acadia University, Wolfville, NS, Canada

Laboratory Teaching assistant

Courses (taught in English):

- MATH 1013: Introductory Calculus I Fall 2018
- MATH 2243: Applied Statistics for Life Sciences I Fall 2018
- MATH 2223: Applied Probability for Science and Engineering I Fall 2018
- Mathematics and Statistics Help Center Fall 2018
- Mathematics and Statistics Help Center Winter 2018
- Mathematics and Statistics Help Center Fall 2017
- MATH 1013: Introductory Calculus I Fall 2017
- MATH 2243: Applied Statistics for Life Sciences I Fall 2017
- Mathematics and Statistics Help Center Winter 2017
- MATH 2253: Applied Statistics for Life Sciences II Winter 2017
- MATH 1023: Introductory Calculus II Winter 2017
- Mathematics and Statistics Help Center Fall 2016
- MATH 2213: Applied Probability for Science and Engineering I Fall 2016
- MATH 1023: Introductory Calculus II 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 2024

Combinatorial Designs Session co-organizer

2023 Canadian Mathematical Society (CMS) Summer Meeting 2023

Design Theory and Graph Decomposition Session co-organizer

Canadian Mathematical Society Student Committee 2022 - 2024

Chair

University of Ottawa Mathematics and Statistics Graduate Student As- 2022 - 2023
sociation Executive

President

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| 16th Ottawa Mathematics and Statistics Conference <i>Lead organizer</i> | 2022 - 2023 |
| 27th Ontario Combinatorics Workshop <i>Co-organizer</i> | 2022 - 2023 |
| 15th Ottawa Mathematics and Statistics Conference <i>Co-organizer</i> | 2021 - 2022 |
| Canadian Mathematical Society Student Committee <i>Member</i> | 2021 - 2022 |
| University of Ottawa Mathematics and Statistics Graduate Student Association Executive <i>Vice-president external</i> | 2020 - 2022 |
| 14th Ottawa Mathematics and Statistics Conference <i>Co-organizer</i> | 2020 - 2021 |
| Acadia's 5th Student Research and Innovation Conference <i>Co-organizer</i> | 2017 - 2018 |
| Acadia Graduate Student Association Executive Committee <i>Science representative</i> | 2017 - 2018 |
| Acadia Math Outreach <i>Student volunteer</i> | 2016 - 2018 |
| Acadia Math Society <i>President</i> | 2015 - 2016 |