

# DR. ALICE LACAZE-MASMONTEIL

## PERSONAL INFORMATION

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NATIONALITIES: Canadian and French  
CURRENT ADDRESS: 3737 Wascana Pkwy, Regina, SK S4S 0A2, Canada  
WEBSITE: <https://alicelacaze-masmonteil.github.io>  
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PRONOUNS: She/her/hers

## ACADEMIC POSITIONS

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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

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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  
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

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

## FELLOWSHIPS, SCHOLARSHIPS, AND PRIZES

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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 to the best paper published by a student.

<i>Peter Rodney Memorial Book Prize</i>	2023
Awarded to the best student talk given at the 27th Ontario Combinatorics Workshop.	
<i>University of Ottawa Department of Mathematics and Statistics André Dabrowski Scholarship Fund</i>	2023
Valued at \$1,400. Awarded to a student that demonstrated qualities of leadership.	
<i>Natural Sciences and Engineering Research Council of Canada (NSERC) Michael Smith Foreign Study Supplement</i>	2023
Valued at \$6,000. Awarded to fund visit to Monash University in Melbourne Australia.	
<i>NSERC Canada Graduate Scholarship - Doctoral</i>	2021 - 2024
Valued at \$35,000 per year for a duration of three years.	
<i>Catherine Stanley Memorial Scholarship</i>	2018
Awarded to a student that demonstrated excellence as a teaching assistant.	
<i>NSERC Canada Graduate Scholarship - Master's program</i>	2017 - 2018
Valued at \$17,500 for a duration of one year.	
<i>Acadia Undergraduate Mathematics Competition: Best Paper</i>	2016

## PRESENTATIONS

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### Conference Presentations

- *Completing the solution to the directed Oberwolfach problem with two tables*, Scientific Session on Design Theory: 2024 CMS 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

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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
- 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):

- MATH 1013: Introductory Calculus I Fall 2018
- MATH 2243: Applied Statistics for Life Sciences I Fall 2018
- MATH 2213: 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

## PROGRAMING LANGUAGES

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Intermediate: Python, R, HTML,  $\text{\LaTeX}$ .

Beginner: GAP.

## ACADEMIC SERVICE

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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 <i>Presenter</i>	2024
Canadian Open Mathematical Competition <i>Grader</i>	2024
Women in Combinatorics Virtual Conference <i>Combinatorial Designs Session co-organizer</i>	2024
2023 Canadian Mathematical Society Summer Meeting <i>Design Theory and Graph Decomposition Session co-organizer</i>	2023
Canadian Mathematical Society Student Committee <i>Chair</i>	2022 - 2024
University of Ottawa Mathematics and Statistics Graduate Student Association Executive <i>President</i>	2022 - 2023
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