

Ian C. George

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Waterloo, ON
Canada

Education

- 2023- PhD Combinatorics and Optimization, University of Waterloo. Supervisor: Karen Yeats.
- 2021-2023 MSc Mathematics, Dalhousie University. Supervisor: Jason Brown.
- 2017-2021 BSc Mathematics and Physics with certificate in Information Technology, Dalhousie University.

Teaching and related experience

- 2025 Marker for CO 480 *History of Mathematics*, University of Waterloo. Graded student assignments.
- 2025 Marker for MATH 136 *Linear Algebra 1 for Honours Mathematics*, University of Waterloo. Graded student assignments.
- 2025 Marker and tutorial instructor for MATH 239 *Introduction to Combinatorics*, University of Waterloo. Delivered tutorial sessions and graded student assignments and exams.
- 2025 Mentor for the Women in Math (WiM) Directed Reading Program (DRP), University of Waterloo. Supervised undergraduate students on a research project investigating poset invariants in Causal Set Theory (CST).
- 2024 Marker for MATH 239 *Introduction to Combinatorics*, University of Waterloo. Graded student assignments and exams.
- 2024 Marker for MATH 136 *Linear Algebra 1 for Honours Mathematics (online)*, University of Waterloo. Graded student assignments.
- 2024 Marker and tutorial instructor for MATH 239 *Introduction to Combinatorics*, University of Waterloo. Delivered tutorial sessions and graded student assignments and exams.
- 2023 Marker for MATH 239 *Introduction to Combinatorics*, University of Waterloo. Graded student assignments and exams.
- 2023 Tutorial instructor for MATH 1010 *Differential and Integral Calculus II*, Dalhousie University. Delivered tutorial sessions and assigned/graded quizzes.
- 2021 - 2023 Learning centre TA, Dalhousie University. Helping undergraduate students with calculus, linear algebra, discrete, and related mathematics courses.
- 2022 Quiz marker for MATH 1280 *Engineering Math*, Dalhousie University. Grading and providing feedback on students' quizzes.
- 2021 Assignment marker for MATH 2110 *Logic and Set Theory*, Dalhousie University. Grading and providing feedback on students' assignments.

Grants, honours & awards

- 2025 Graduate Research Studentship (University of Waterloo) (\$ 8478)
- 2024 Combinatorics and Optimization Graduate Award (University of Waterloo) (\$ 3187)

2023-2024 Graduate Research Studentship (University of Waterloo) (\$ 13240)
 2023-2024 Math Domestic Graduate Student Award (University of Waterloo) (\$ 6000)
 2022-2023 NSERC Canada Graduate Scholarships - Master's (CGS-M) (\$ 17500)
 2021 NSERC Undergraduate Summer Research Award (USRA) (\$ 6000)
 2020 Faye Sobey Undergraduate Research Award, Sobey Foundation (\$ 5500)
 2019 Archibald Award, Department of Physics and Atmospheric Science, Dalhousie University
 2019 A.S. MacKenzie Award, Department of Physics and Atmospheric Science, Dalhousie University
 2019 Faye Sobey Undergraduate Research Award, Sobey Foundation (\$ 5500)
 2018 J.G. MacGregor Award, Department of Physics and Atmospheric Science, Dalhousie University
 2017 Entrance scholarship, Dalhousie University (\$20 000)

Publications

JOURNAL ARTICLES

2025 Brown, Jason I. & George, Ian C. *On the roots of degree polynomials*. Australasian Journal of Combinatorics (accepted).
 2024 Brown, Jason I. & George, Ian C. *Modulation Graphs in Popular Music*. The Mathematical Intelligencer.

THESES

2023 *On the Degree Polynomial of Graphs*. MSc thesis. Supervisor: Jason Brown.

Outreach/volunteering

2024 Co-organizer for MITP YOUNGST@RS *Combinatorics in Fundamental Physics* virtual workshop. Located virtually at the Mainz Institute for Theoretical Physics, Johannes Gutenberg University, November 26-29. Held invited talks about the role of combinatorics in several areas of fundamental physics, and had a cross-disciplinary discussion session.