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 330 *Combinatorial Enumeration*, University of Waterloo. Graded student assignments.
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.

Publications

Journal articles

2025   Jason I. Brown and Ian C. George. On the roots of degree polynomials. *Australasian Journal of Combinatorics*, 92(2):164–183, 2025

2024   Jason I. Brown and Ian C. George. Modulation Graphs in Popular Music. *The Mathematical Intelligencer*, pages 1–8, 2024

Preprints

2025   Ian George and Karen Yeats. The Generalized Interval Polynomial of a Poset. *arXiv:2511.14924*, 2025 (extended abstract submitted to FPSAC 2026)

Theses

2023   Ian George. On the Degree Polynomial of Graphs. Master's thesis, Dalhousie University, 2023

Grants, honours & awards

2026	Graduate Research Studentship (University of Waterloo)
2025	Graduate Research Studentship (University of Waterloo)
2024	Combinatorics and Optimization Graduate Award (University of Waterloo)
2023-2024	Graduate Research Studentship (University of Waterloo)
2023-2024	Math Domestic Graduate Student Award (University of Waterloo)
2022-2023	NSERC Canada Graduate Scholarships - Master's (CGS-M)
2021	NSERC Undergraduate Summer Research Award (USRA)
2020	Faye Sobey Undergraduate Research Award, Sobey Foundation
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
2018	J.G. MacGregor Award, Department of Physics and Atmospheric Science, Dalhousie University
2017	Entrance scholarship, Dalhousie University

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.