

Education

- 2025-present • **Ph.D. Dartmouth College**, Mathematics.
- 2023-2025 • **M. Sc., Université de Montréal**, Applied Mathematics.
- 2020-2023 • **B. Sc., Université de Montréal**, Pure and Applied Mathematics.
- 2019-2020 • **Université de Montréal**, Cognitive Neurosciences.
- 2017 - 2019 • **DEC, Regional Cegep of Lanaudière in Terrebonne**, Natural Sciences.

Research

Published Articles

Vaithyanathasarma, S., Caron, F., **Bistodeau-Gagnon, G.**, Bélair, J., “Bringing back the people in modeling epidemics,” *International Journal of Mathematical Education in Science and Technology*, 2024. URL: <https://www.tandfonline.com/doi/full/10.1080/0020739X.2023.2249466>.

Preprints

Bistodeau-Gagnon, G., Segal, D., Craig, M., Michaels, Y., “Uncovering non-monotonic antagonistic and synergistic combinations (UNMASC), a robust method with applications to t cell differentiation in vitro,” Preprint at <https://www.biorxiv.org/content/10.1101/2025.09.07.674767v1.full>, 2025.

Presentations

Bistodeau-Gagnon, G., “Virtual clinical trials: Learning how to cure... one equation at a time!,” Club mathématique, Université de Montréal, 2025. URL: <https://dms.umontreal.ca/~clubmath/index.html>.

Bistodeau-Gagnon, G., Craig, M., Michaels, Y., “Estimating non-monotonic combination dose-responses of cytokines for in vitro t cell differentiation and maturation,” Third joint SIAM/CAIMS annual meeting, Palais des congrès de Montréal, 2025. URL: <https://www.siam.org/conferences-events/past-event-archive/an25/program/>.

Bistodeau-Gagnon, G., “Mathematical modeling to optimize in vitro t cell generation from induced pluripotent stem cells,” Club mathématique, Université de Montréal, 2023. URL: <https://dms.umontreal.ca/~clubmath/index.html>.

Bistodeau-Gagnon, G., “The impact of perception on the spread of covid-19,” SUMM 2023, Université de Montréal, 2023. URL: <https://www.summ.xyz/>.

Caron, F., Vaithyanathasarma, S., **Bistodeau-Gagnon, G.**, Bélair, J., “Bringing back the people in modeling epidemics,” SIMIODE Expo., 2023.

Bistodeau-Gagnon, G., “Epidemiologic modeling of covid-19 with consideration of behavioral factors,” Club mathématique, Université de Montréal, 2022. URL: <https://dms.umontreal.ca/~clubmath/index.html>.

Bistodeau-Gagnon, G., Bélair, J., “Modeling perception and behavior in disease dynamics (poster presentation),” Mathematics for Public Health Festival (MfPHest), Toronto, Canada, 2022.

Bistodeau-Gagnon, G., “Development of a pipeline of mathematical approaches to better understand immunological data,” Club mathématique, Université de Montréal, 2021. URL: <https://dms.umontreal.ca/~clubmath/index.html>.

Bistodeau-Gagnon, G., “Integrated data-driven approaches for understanding immunological data,” Canadian Undergraduate Mathematics Conference (CUMC), Western University, Ontario, Canada., 2021.

Grants & Awards

- 2025 • **Doctoral Research Scholarship (declined)**, Fonds de recherche du Québec - Nature and technologies (FRQNT), declined in favor of CGS D scholarship.
- **Canada Graduate Research Scholarships – Doctoral program (CGS D)**, Natural Sciences and Engineering Research Council of Canada (NSERC).

Grants & Awards (continued)

- 2023
- **Canada Graduate Scholarships - Master's program**, Natural Sciences and Engineering Research Council of Canada (NSERC).
 - **Quebec Master's Scholarship**, Fonds de recherche du Québec - Nature and technologies (FRQNT).
 - **Undergraduate Student Research Awards**, Natural Sciences and Engineering Research Council of Canada (NSERC).
 - **Research scholarship (declined)**, Institut des sciences mathématiques (ISM).
- 2022
- **Ravy Por Award**, Université de Montréal.
 - **Undergraduate Student Research Awards**, Natural Sciences and Engineering Research Council of Canada (NSERC).
- 2021
- **Undergraduate Introduction to Research Scholarships**, Institut de valorisation des données (IVADO).
 - **Research scholarship (declined)**, Institut des sciences mathématiques (ISM).

Teaching and professional experiences

- 2025-2026 **Teaching assistant** (Math 8, Calculus of Functions of One and Several Variables, Fall 2025, Math 3, Calculus, Winter 2026), Department of Mathematics, Dartmouth College.
- 2022-2025 **Teaching assistant** (Differential Equations MATH2115, Winter 2025, Mathematics for chemists MAT1958, Fall 2024, Mathematical Modelling MAT1460, Winter 2022 and 2023, Differential Calculus MAT1903, Fall 2022 and 2023), Department of Mathematics and Statistics, Université de Montréal.
- Summer 2023 **Research intern** under the supervision of Dr. Morgan Craig, Department of Mathematics and Statistics, Université de Montréal.
- Fall 2022 **Research assistant**, under the supervision of Roxane de la Sablonnière, Social Change and Identity Laboratory, Université de Montréal.
- Summer 2022 **Research intern** under the supervision of Dr. Jacques Bélair, Department of Mathematics and Statistics, Université de Montréal.
- Fall 2021 **Mentor**, in the French linguistic pairing program, for the Office For the Promotion of the French Language, Université de Montréal.
- Summer 2021 **Research intern** under the supervision of Dr. Guy Wolf and Dr. Morgan Craig, Department of Mathematics and Statistics, Université de Montréal.
- 2017-2019 **Mathematics tutor**, Regional Cegep of Lanaudière in Terrebonne.

Social implication

- 2024-2025 Academic affairs representative for the Mathematics and Statistics Graduate Student Association (AECSMS) at the Université de Montréal.
- 2022-2023 Université de Montréal Mathematics and Statistics Student Association Organizing Committee for Orientation Activities.
- 2023 Organizing committee for the summer seminars of the Club Mathématique of Université de Montréal.
- 2023-2024 Organizing Committee of the SAMARI (Annual Symposium on Mathematics for the Future of Research and Industry) for 2023 and 2024.
- 2022-2024 Student café volunteer for the Mathematics and Statistics and Computer Science student associations.
- 2022-2023 Internal affairs representative for the Mathematics and Statistics Student Association of Université de Montréal.
- Organizing committee of the Club Mathématique at the Université de Montréal.
- Organizing committee of the University Seminars in Mathematics in Montreal (SUMM) for the editions 2022 and 2023.
- 2021 Mentor for the “Passerelle +” pairing program for new students at Université de Montréal.