

## Elias Hess-Childs

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<u>Personal and Contact Information</u>	US/Canadian Citizen 251 Mercer St. #708 New York, NY 10012 USA	Phone Number: (646)-644-6874 Email: <a href="mailto:elias.hess-childs@courant.nyu.edu">elias.hess-childs@courant.nyu.edu</a> Website: <a href="https://cims.nyu.edu/~ehc364/">https://cims.nyu.edu/~ehc364/</a>
<u>Research Interests</u>	Probability, partial differential equations, statistical physics, mean-field limits, stochastic analysis, large deviation principles, branching processes, percolation.	
<u>Education</u>	<b>New York University</b> , Courant Institute Ph.D. in Mathematics, expected May 2024 Advisor: Sylvia Serfaty	2019-present
	<b>McGill University</b> B.S. in Honours Mathematics, awarded May 2019 First Class Honours	2015-2019
<u>Publications</u>	E. Hess-Childs. <b>Large deviation principles for singular Riesz-type diffusive flows.</b> Preprint. (2023 <a href="#">arxiv</a> )	
<u>Preprints</u>	E. Hess-Childs, K. Rowan. <b>Higher-order propagation of chaos in <math>L^2</math> for interacting diffusions.</b> Preprint. (2023 <a href="#">arxiv</a> ).	
	A. Burchard, R. Choksi, E. Hess-Childs. <b>On the strong attraction limit for a class of nonlocal interaction energies.</b> Nonlinear Analysis, 198, 111844, 12 (2020 <a href="#">article</a> )	
<u>Honours and Awards</u>	2022-2023 2021-2024 2021-2024 2019-2025 2019 2016-2019 2018-2019 2018-2019 2018 2017-2018 2017-2018 2017 2016-2017 2016-2017 2015-2016	Isaac Barkey and Ernesto Yhap Fellowship Alexander Graham Bell CGS-D (Declined) Postgraduate Scholarships-Doctoral Eckhardt Fellowship (Declined) Anna and Robert Skomoroski Prize Dean's Honour List Herbert J. Brennen Scholarship Faculty of Science Scholarship Undergraduate Student Research Award Edward Beatty Scholarship in Math Robert Bruce Scholarship Undergraduate Student Research Award Garnet A. Woonton Prize in Physics Faculty of Science Scholarship J W McConnell Scholarship  New York University NSERC NSERC University of Chicago McGill University McGill University McGill University McGill University NSERC McGill University McGill University NSERC McGill University McGill University McGill University
<u>Talks</u>	<i>Propagation of chaos from the perspective of perturbation theory.</i> 2023 Winter Meeting of the Canadian Mathematical Society. (December 2023)  <i>Large deviation principles for interacting diffusions.</i> Student Probability Seminar, Courant Institute. (September 2023)	

*Large deviation principles and Hamilton-Jacobi equations.* Student Probability Seminar, Courant Institute. (March 2022)

*An introduction to Coulomb Gases.* Student Probability Seminar, Courant Institute (October 2020)

*Nearest neighbour percolation and extensions.* Student Probability Seminar, Courant Institute. (February 2020)

*Introduction to Spin Glass.* Seminars in Undergraduate Mathematics in Montreal. (January 2018)

Teaching

Graduate Teaching Assistant, Analysis I (Spring 2023)

Graduate Teaching Assistant, Probability and Statistics (Fall 2022)

Graduate Teaching Assistant, Analysis I (Spring 2022)

Teaching Assistant, PIMS-CRM Summer School in Probability (Summer 2021)

Professional  
Activities

Co-organizer, Courant Student Probability Seminar (Spring 2020-present)

Co-organizer, Graduate Student/Postdoc Seminar (AY 2021-2022)

President, Courant Student Organization (AY 2021-2022)

Vice-President, Courant Student Organization (AY 2020-2021)

Referee, Journal of Probability and Mathematical Physics