CURRICULUM VITAE

MIRIAM (MIRA) GORDIN

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EDUCATION

Ph.D. in Applied and Computational Mathematics   *Expected May 2025*
Princeton University
NSF Graduate Fellow
Advisor: Ramon van Handel

Sc.B. with Honors in Applied Mathematics   *2020*
Brown University
Honors Thesis: "Locally Interacting Markov Chains on Heterogeneous and Random Graphs"
Advisor: Kavita Ramanan

PUBLICATIONS & PREPRINTS

Vector-valued concentration inequalities on the biased discrete cube, 2024.   arXiv:2410.09607

Locally interacting Markov chains on heterogeneous and random graphs, undergraduate thesis, Brown University, 2020.   [link]

Assembly of the Lactuca sativa*, L. cv.* Tizian *draft genome sequence reveals differences within major resistance complex 1 as compared to the cv.* Salinas *reference genome*, with B. Verwaaijen, D. Wibberg, J. Nelkner, O. Rupp, A. Winkler, A. Bremges, J. Blom, R. Grosch, A. Pühler, A. Schlüter, *Journal of Biotechnology*, Volume 267, 10 February 2018, Pages 12-18, ISSN 0168-1656.   [link]

INVITED TALKS

2024   *Vector-Valued Concentration on the Symmetric Group*, Dual Trimester Program: "Boolean Analysis in Computer Science", Hausdorff Institute, Bonn.

        Vector-Valued Concentration on the Symmetric Group, Penn/Temple Probability Seminar.

        Vector-Valued Concentration on the Symmetric Group, Probability and Analysis Webinar (online).

        What is Bakry-Emery Curvature?, "What is . . . ?" Seminar, Institute for Advanced Study, Princeton.

        Vector-Valued Concentration on the Symmetric Group, Hausdorff Institute Trimester Seminar, Bonn.

        Vector-Valued Concentration on the Symmetric Group, PACM Colloquium, Princeton University.

        Vector-Valued Concentration on the Symmetric Group, Analysis Seminar, Stony Brook University.

2023   *Vector-Valued Concentration on the Symmetric Group*, Probability Seminar, Lehigh University.

        Vector-Valued Concentration on the Symmetric Group, Northeast Probability Seminar, NYU.

2021	*Locally Interacting Markov Chains on Random and Heterogenous Graphs*, PACM Graduate Student Seminar, Princeton University.
2020	*Locally Interacting Markov Chains on Random and Heterogenous Graphs*, Honors Thesis Presentation, Brown University.
2018	*Matrix Models for the Circular β Ensemble and Non-Hermitian Anderson Operators*, Probability Seminar, Brown University.

Awards & Fellowships

2020	National Science Foundation Graduate Research Fellowship
2020	Ron Truell Premium Prize, Division of Applied Mathematics, Brown University
2019	Karen T. Romer Undergraduate Teaching and Research Award
2019	Phi Beta Kappa Honor Society
2018	MAA Outstanding Student Paper Session Presentation Award
2016	Hartshorn-Hypatia Examination for Excellence in Preparatory Mathematics (1st prize)

Leadership & Outreach

2021– 2023	Noetherian Ring Seminar Organizer, Princeton
2020 – 2021	Graduate Student Seminar Organizer, Princeton PACM
2020 –	Peer Math Advising, Princeton University
2020 –	Mentoring Möbius, Princeton University
2020 – 2021	STEM Women's Leadership Council, Princeton University
2016 – 2020	Association for Women in Mathematics, Undergraduate President, Brown University

Past Research Experience

Undergraduate Research Award — Brown University
Advised by: Kavita Ramanan — Summer 2019
Project title: *Markov Chains on Large Sparse Networks*

SMALL REU Program — Williams College
Advised by: Mihai Stoiciu — Summer 2018
Project title: *Spectral Properties of Non-Hermitian Anderson Operators*

Nerreti Lab — Brown University
Advised by: Nicola Neretti — Summer 2017

Center for Biotechnology (CeBiTec) — University of Bielefeld
Advised by: Bart Verwaaijen — Summer 2016

Plant Biochemistry and Physiology Research Group — University of Bielefeld
Advised by: Karl-Josef Dietz — Summer 2015

Teaching

Spring 2024, Assistant in Instruction, Multivariable Calculus for Economics/Life Sciences.

Fall 2022, Volunteer Teacher, Probability, Momentum 4 Ukraine, Princeton.

Fall 2018, Teaching Assistant, Accelerated Introduction to Computer Science, Brown University.

Fall 2017, Teaching Assistant, Ordinary Differential Equations, Brown University.

Fall 2017, Volunteer Teaching Assistant, Data-centric Intro to Programming, *(course for students from University of Puerto Rico displaced by Hurricane Maria)*, Brown University.

Skills

Languages: English (native), German (fluent), Russian (fluent), Spanish (beginner).
Technical: Python, MATLAB, Bash, R, Java, Perl.