

Nicholas G. Lohr

CONTACT INFORMATION 210A Locy Hall *website:* <https://math.northwestern.edu/~nlohr/>
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Evanston, IL 60208 USA

EDUCATION **Northwestern University** September 2020 - Summer 2025
Ph.D. in Mathematics,
Thesis advisors: Jared Wunsch and Steven Zelditch

Northwestern University September 2019 - September 2020
M.S. in Mathematics

University of Notre Dame August 2015 - May 2019
B.S. in Mathematics with minor in Actuarial Science, *magna cum laude*
Senior thesis advisor: Jeffrey Diller

RESEARCH INTERESTS Analysis of PDE, semiclassical analysis, spectral and scattering theory, mathematical physics and Wigner distributions, probability, quantum dynamics.

RESEARCH **Papers**

- *On the conjugation map between Coulomb and hyperbolic scattering*, preprint.
- *Semiclassical measures of eigenfunctions of the hydrogen atom*, accepted in Annales Henri Poincaré with major revisions.
- *Scaling asymptotics of Wigner distributions of harmonic oscillator orbital coherent states*, Communications in Partial Differential Equations **48**(2023), 415-439.

Talks

- Northwestern Undergraduate Math Society Northwestern, Winter 2024
- RTG Dynamics REU Northwestern, Summer 2023
- 87th Midwest PDE Seminar Notre Dame, Spring 2023
- Microlocal Seminar Northwestern, Spring 2023
- Graduate Student Seminar Northwestern, Spring and Fall 2021, Fall 2022

Conferences

- Microlocal Analysis and Quantum Dynamics Northwestern, Summer 2024
- Paris-Saclay conference in Analysis and PDE Orsay, France, Spring 2024
- From Microlocal to Global Analysis MIT, Spring 2024
- Oberwolfach Seminar 2347a Oberwolfach, Germany, Fall 2023
- 87th Midwest PDE Seminar Notre Dame, Spring 2023
- May Midwest Microlocal Meeting Northwestern, Spring 2023

TEACHING ASSISTING AND GRADING **Northwestern Teaching Assistant** Fall 2019 - Spring 2024
Evanston, IL

- Assisted teaching and grading for the following classes
 - Single-Variable Calculus with Precalculus (MATH 218-3) Spring 2024
 - Probability and Stochastic Processes (MATH 310-3)
 - Single-Variable Calculus with Precalculus (MATH 218-2) Winter 2024
 - Probability and Stochastic Processes (MATH 310-2)
 - Single-Variable Calculus with Precalculus* (MATH 218-1) Fall 2023

*two sections

- Single-Variable Calculus with Precalculus (MATH 218-1) Fall 2022
- Probability Theory and Stochastic Analysis (MATH 450-1)
- MENU Applied Analysis (MATH 360-2) Winter 2022
- Complex Analysis and Group Theory for ISP (MATH 382-0)
- MENU Applied Analysis (MATH 360-1) Fall 2021
- Fourier Analysis and Boundary Value Problems for ISP (MATH 381-0)
- Single-Variable Calculus with Precalculus (MATH 218-2) Spring 2021
- MENU Probability and Stochastic Processes (MATH 311-3)
- Probability Theory and Stochastic Analysis (MATH 450-3)
- Sequences and Series (MATH 226-0) Fall 2020
- Elementary Differential Equations (MATH 250-0)
- Probability and Stochastic Processes[†] (MATH 310-2) Winter 2020

COMMUNITY
SERVICE

RTG Dynamics REU Advisor Summer 2023

Evanston, IL

- Advised undergraduates biweekly in undertaking and presenting research in Hamiltonian dynamics

Northwestern Directed Reading Program Spring 2021 - Winter 2023

Evanston, IL

- Advised undergraduates in undertaking and presenting independent study projects in mathematics
 - Levi Hoogendoorn - Grace-Heawood theorems Winter 2023
 - Claire Paré - Isoperimetric and isodiametric inequalities
 - Colin Brennan - Lagrange inversion theorem with applications in analysis, algebra, and topology Winter 2022
 - Kole Butterer - Brownian motion and the Dirichlet problem with SageMath visualization Spring 2021

Northwestern Causeway Certificate Program Mentor Summer 2023-Summer 2025

Evanston, IL

- Advised the following post-baccalaureate students in preparing for graduate school
 - Xzavier Herbert

Northwestern Climate Committee Member 2022-2023

Evanston, IL

- Met quarterly to discuss how to improve graduate students well-being with faculty members

AWARDS AND
GRANTS

Nominated by Math Department for the University Teaching Award	2024
NSF RTG Dynamics: Classical, Modern, and Quantum Recipient	2022-2023
Department Graduate Student Teaching Assistant Award	2021-2022
NSF RTG: Analysis on Manifolds Recipient	2020-2022
GE Prize for Excellence in Mathematics - Honors	2019
College of Science Summer Undergraduate Research Fellowship	2018
Riverbend Math Center Award for Excellence in Quantitative Analysis	2015
Bayer Physical Science Award for Excellence in Physical Science	2015
Hoosier Science-Engineering Fair Award	2014
Mu Alpha Theta Science Fair Award	2014
University of Notre Dame Mathematics Department Award	2014

[†]only graded

PROGRAMMING
SKILLS

Emacs, C++, Mathematica, LaTeX, SageMath, Python