Nicholas G. Lohr

CONTACT INFORMATION	210A Locy Hall 1850 Campus Dr. Evanston, IL 60208 USA	*website*: https://nick-lohr.github.io/ *email*: nlohr@math.northwestern.edu

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, harmonic analysis, probability, quantum dynamics.

RESEARCH

Papers
- *On the intertwining map between Coulomb and hyperbolic scattering*, submitted September 2024.
- *Semiclassical measures of eigenfunctions of the hydrogen atom*, under revisions for Annales Henri Poincaré.
- *Scaling asymptotics of Wigner distributions of harmonic oscillator orbital coherent states*, Communications in Partial Differential Equations **48**(2023), 415-439.

Talks
- Northwestern Informal Probability Seminar   Northwestern, Fall 2024
- 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
    - with Sonja Mapes
    Probability and Stochastic Processes (MATH 310-3)
    - with Ursula Porod

- ○ Single-Variable Calculus with Precalculus (MATH 218-2) Winter 2024
  − with Sonja Mapes
  Probability and Stochastic Processes (MATH 310-2)
  − with Keith Burns
- ○ Single-Variable Calculus with Precalculus* (MATH 218-1) Fall 2023
  − with Sonja Mapes
- ○ Single-Variable Calculus with Precalculus (MATH 218-1) Fall 2022
  − with Sonja Mapes
  Probability Theory and Stochastic Analysis (MATH 450-1)
  − with Antonio Auffinger
- ○ MENU Applied Analysis (MATH 360-2) Winter 2022
  − with Eugene Kushnirsky
  Complex Analysis and Group Theory for ISP (MATH 382-0)
  − with Ezra Getzler
- ○ MENU Applied Analysis (MATH 360-1) Fall 2021
  − with Eugene Kushnirsky
  Fourier Analysis and Boundary Value Problems for ISP (MATH 381-0)
  − with Santiago Cañez
- ○ Single-Variable Calculus with Precalculus (MATH 218-2) Spring 2021
  − with Sean McAfee
  MENU Probability and Stochastic Processes (MATH 311-3)
  − with Ursula Porod
  Probability Theory and Stochastic Analysis (MATH 450-3)
  − with Antonio Auffinger
- ○ Sequences and Series (MATH 226-0) Fall 2020
  − with Eric Zaslow
  Elementary Differential Equations (MATH 250-0)
  − with Eric Chang
- ○ Probability and Stochastic Processes† (MATH 310-2) Winter 2020
  − with Keith Burns

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

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*two sections
†only graded

○ Xzavier Herbert

Northwestern Climate Committee Member   2022-2023
Evanston, IL
- Met quarterly to discuss how to improve graduate students well-being with faculty members

Head Juror of First Degree Murder Trial   Winter 2022
Chicago, IL
- Served jury duty for Cook County and was voted to be the jury's foreperson

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

PROGRAMMING SKILLS		
	LaTeX	Proficient ■■■□
	Mathematica	Proficient ■■■□
	Python/SageMath	Intermediate ■■□□
	C++	Elementary ■□□□
	Emacs/LISP	Elementary ■□□□
	HTML/Javascript	Elementary ■□□□