

# Phillip Harris

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[phillipharr.is](http://phillipharr.is)

**EDUCATION**      **University of Wisconsin, Madison**      **2019-Present**  
*Ph.D. Candidate, Mathematics*  
*Advisor: Simon Marshall*

**University of Illinois at Urbana-Champaign**      **2014-2018**  
*B.S., Math and Computer Science*

**PAPERS**

- *Uniform Bounds for Maximal Flat Periods on  $SL_n(\mathbb{R})$* . Harris, Phillip. [\[arxiv\]](#)
- *Random Nilpotent Groups of Maximal Step*. Harris, Phillip. [New York Journal of Mathematics, Volume 28, 1365-1371 \(2022\)](#)
- *Average Frobenius Distributions in Short Intervals*. A. Agwu, P. Harris, S. Kannan, K. James, H. Li. [The Ramanujan Journal, Volume 58, 75–120 \(2022\)](#)
- *Frobenius Distributions in Short Intervals for CM Elliptic Curves*. A. Agwu, P. Harris, S. Kannan, K. James, H. Li. [Journal of Number Theory, Volume 188, 263-280 \(2018\)](#)

**ASSISTANT-SHIPS**      **Teaching Assistant**  
Calculus I      Fall 2019, Spring 2019, Fall 2020, Fall 2021, Fall 2024  
Discrete Mathematics      Spring 2020

**Grader**  
Math 421 (Proof-based Calculus / Spivak)      Spring 2022

**Research Assistant**      Spring 2021, Spring 2022

**AWARDS**      **Excellence in Graduate Research Award**      Fall 2023

**Physical Sciences Award**      Fall 2019

**TALKS**

**Maximal Flat Periods for  $SL(n, \mathbb{R})$**   
*PLaNT Conference, Pittsburgh, Pennsylvania*      April 2024  
*EPFL ArStANT Workshop, Lausanne, Switzerland*      May 2023  
*University of Copenhagen Number Theory Seminar*      November 2023

**Concentration of Laplace Eigenfunctions along Geodesics**  
*UW Grad Analysis Seminar*      October 2022

**The Selberg Trace Formula**  
*UW Specialty Exam*      Spring 2022

**Frobenius Distributions in Short Intervals**  
*Clemson Number Theory REU*      Summer 2017

**CONFERENCES  
ATTENDED**

- *Analysis of Automorphic Forms and L-Functions in Higher Rank*, Oberwolfach, May 28 - June 3, 2023
- *Arithmetic Statistics in Automorphic Forms and Analytic Number Theory*, EPF Lausanne, June 5-9, 2023
- *Automorphic Forms Conference*, Erdős Center, September 5–9, 2022
- *Automorphic Forms Summer School*, Erdős Center, August 29–September 2, 2022
- *iPAM Workshop on Machine Assisted Proofs*, UCLA, February 13-17, 2023
- *Masterclass: Relative trace formulae*, University of Copenhagen, August 22–26, 2022
- *Laplacians on Random Hyperbolic Surfaces and on Random Graphs*, Northwestern University, May 30–June 3, 2022
- *Harmonic Analysis and Symmetric Spaces 2021*, University of Wisconsin-Madison (online), October 27–29, 2021
- *Applications of Expander Graphs to Number Theory and Computer Science*, University of North Carolina at Greensboro (online), May 24–28, 2021

**OUTREACH**

**Graduate Peer Mentoring** Fall 2021, 2022, 2023, 2024  
*Mentor*

**Undergraduate Mentoring Program** Fall 2022  
*Mentor*

**OTHER  
EXPERIENCE**

**Susquehanna International Group** [sig.com](http://sig.com) Summer 2023  
*Quantitative Research Intern*

**ONAI** [onai.com](http://onai.com) Summer 2020  
*Software Contractor*

**Runtime Verification** [runtimeverification.com](http://runtimeverification.com) 2018-2019  
*Software Engineer*

**Clemson Number Theory REU** [clemson.edu](http://clemson.edu) Summer 2017  
*Researcher*