

HENRY TWISS

henryjtwiss@gmail.com — www.henrytwiss.com — 651.368.4884

RESEARCH INTERESTS

Multiple Dirichlet series – Half-integral weight automorphic forms – Subconvexity

EDUCATION

| | |
|--|--------------|
| Brown University , Providence, RI | 2021-Present |
| PhD Mathematics, <i>expected May 2026</i> | |
| Advisor: Jeff Hoffstein | |
| University of Minnesota , Minneapolis, MN | May 2021 |
| B.S. Mathematics, <i>summa cum laude</i> | |
| Advisor: Adrian Diaconu | |

PUBLICATIONS AND PREPRINTS

1. K. Benli, S. Goel, H. Twiss, A. Zaman. Explicit Deuring–Heilbronn phenomenon for Dirichlet L -functions. Preprint, 2024; arXiv:2410.06082.
2. S. Creech, H. Twiss. A converse theorem in half-integral weight. Preprint, 2023; arXiv:2306.02872.
3. A. Diaconu, H. Twiss. Secondary terms in the asymptotics of moments of L -functions. JNT PRIME, 2023; jnt.2023.04.010.

AWARDS, SCHOLARSHIPS, FELLOWSHIPS, AND GRANTS

DOMESTIC

- Brown Mathematics First Year Fellowship, Brown University 2021
- NSF Graduate Research Fellowship, National 2021
- Barry M. Goldwater Scholarship, National 2020
- Hans H. Dalaker Scholarship, University of Minnesota 2020
- William H. Burgum Scholarship, University of Minnesota 2019
- Honors, every semester at University of Minnesota 2017-2021
- Dean’s List, every semester at University of Minnesota 2017-2021

TRAVEL GRANTS

- BIRS Travel Grant, Inclusive Paths in Explicit Number Theory 2023
- University of Chicago RTG Travel Grant, Notre Dame Topology & Geometry Workshop 2019

EXPERIENCE

RESEARCH

| | |
|---|-----------------------|
| DRS The Nonabelian Delta-symbol Method Research Group , Durham, NC | |
| Analytic Number Theory and Automorphic Forms | Dec. 2023 - Feb. 2024 |
| BIRS Inclusive Paths in Explicit Number Theory Summer School , Kelowna, CA | |
| Explicit Analytic Number Theory | Jul. 2023 - Jul. 2023 |
| University of Minnesota REU , Minneapolis, MN | |
| Algebra, Combinatorics, and Representation Theory | Jun. 2020 - Aug. 2020 |

TEACHING

| | |
|---|-----------------------|
| Brown University , Providence, RI | |
| Teaching Assistant, Multivariable Calculus | Jan. 2026 - May. 2026 |
| Teaching Assistant, Single Variable Calculus II | Sep. 2025 - Dec. 2025 |

| | |
|---|----------------------|
| Guest Lecturer, Analytic Number Theory II | Mar. 2024 - May 2024 |
| Art of Problem Solving , Online | |
| TA, Introduction to Algebra B | May 2018 - Aug. 2018 |
| TA, Introduction to Algebra A | May 2018 - Aug. 2018 |

WORKSHOPS AND CONFERENCES

| | |
|--|------|
| AMS New England Graduate Student Conference | 2022 |
| Spring Graduate Student Conference, Providence, RI | |
| Online Conference in Automorphic Forms | 2020 |
| Summer Conference in Automorphic Forms, Online | |
| Algebraic Combinatorics Workshop | 2020 |
| Spring Workshop in Algebraic Combinatorics, Online | |
| Notre Dame RTG Topology & Geometry Workshop | 2019 |
| Summer Workshop in Topology and Geometry, Notre Dame, IN | |

PRESENTATIONS AND POSTERS

RESEARCH TALKS

| | |
|---|-----------|
| <i>Subconvexity for GL(2) L-functions and shifted MDS.</i> | Oct. 2024 |
| PIMS CRG: L-functions in Analytic Number Theory | |
| <i>Simultaneous non-vanishing for products of elliptic L-functions and affine WMDS.</i> | Sep. 2024 |
| Brown University | |
| <i>Explicit zero-repulsion of Dirichlet L-functions and Linnik's constant.</i> | Nov. 2023 |
| Brown University | |
| <i>Half-integral weight converse theorems.</i> | May 2023 |
| Brown University | |
| <i>Root systems attached to moments of quadratic Dirichlet L-functions.</i> | May 2021 |
| University of Minnesota | |

EXPOSITORY TALKS

| | |
|---|-----------|
| <i>Statistics of L-functions modeled by random matrix theory.</i> | Mar. 2023 |
| Brown University | |
| <i>A synopsis of the origin story of WMDS.</i> | Apr. 2022 |
| Brown University | |
| <i>An introduction to WMDS.</i> | Apr. 2022 |
| Brown University | |
| <i>k-Schur functions.</i> | Jul. 2020 |
| University of Minnesota | |

OUTREACH

| | |
|--|--------------|
| Mentor, Directed Reading Program, Brown University | 2020-Present |
| Organizer, AMS New England Graduate Student Conference, Brown University | 2024 |
| Organizer, Undergraduate Mathematics Research Seminar, University of Minnesota | 2020 - 2021 |
| Panelist, Mathematics Project Minnesota, University of Minnesota | 2020 |
| Panelist, Mathematics Major Exploration Event, University of Minnesota | 2020 |

SKILLS

| | |
|--------------------------|-----------------------|
| Programming Languages | Python, C++ |
| Computer Algebra Systems | SageMath, Mathematica |
| Typeset | LaTeX, Tikz, Beamer |