HENRY TWISS

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RESEARCH INTERESTS

Weyl group multiple Dirichlet series – Shifted Dirichlet series – Subconvexity

EDUCATION

Brown University, Providence, RI   2021-Present
PhD Mathematics, *expected May 2026*
  Advisor: Jeff Hoffstein

University of Minnesota, Minneapolis, MN   May 2021
B.S. Mathematics, *summa cum laude*
  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
  TA, Introductory Calculus II   Sep. 2025 - Present
  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

SEMINARS

Analytic Number Theory Learning Seminar, Brown University   2023-Present
Graduate Student Seminar, Brown University   2021-Present
Algebra and Number Theory Seminar, Brown University   2021-Present
Student Combinatorics and Algebra Seminar, University of Minnesota   2020-2021
Student Number Theory Seminar, University of Minnesota   2019-2021
Undergraduate Mathematics Research Seminar, University of Minnesota   2017-2021
Summer Student Representation Theory Seminar, University of Minnesota   2019-2020

PRESENTATIONS AND POSTERS

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

EXPOSITORY TALKS
Statistics of L-functions modeled by random matrix theory.   Mar. 2023
    Brown University
A synopsis of the origin story of WMDS.   Apr. 2022
    Brown University
An introduction to WMDS.   Apr. 2022
    Brown University
k-Schur functions.   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