

HENRY TWISS

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RESEARCH INTERESTS

analytic number theory — algebraic number theory — representation theory — differential geometry

EDUCATION

University of Minnesota, Minneapolis MN Expected May 2020
B.S. Mathematics
Advisor: Adrian Diaconu
GPA: 3.90

PUBLICATIONS AND PREPRINTS

1. Adrian Diaconu, Henry Twiss. Secondary terms in the asymptotics of moments of L -functions. Preprint, 2020; arXiv:2008.13297. *Submitted*.

AWARDS, SCHOLARSHIPS, FELLOWSHIPS, AND GRANTS

DOMESTIC

- 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-Present
- Dean's List, every semester at University of Minnesota 2017-Present

TRAVEL GRANTS

- University of Chicago RTG Travel Grant, Notre Dame Topology & Geometry Workshop 2019

EXPERIENCE

RESEARCH

University of Minnesota REU, Minneapolis MN June 2020 - Aug. 2020
Algebra, Combinatorics, and Representation Theory

TEACHING

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

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

Student Combinatorics and Algebra Seminar , University of Minnesota	2020-Present
Student Number Theory Seminar , University of Minnesota	2019-Present
Undergraduate Mathematics Research Seminar , University of Minnesota	2017-Present
Summer Student Representation Theory Seminar , University of Minnesota	2019-2020

PRESENTATIONS AND POSTERS

RESEARCH TALKS

<i>Root systems attached to moments of quadratic Dirichlet L-functions.</i>	May 2021
Honors Undergraduate Mathematics Seminar, Minneapolis, MN	
<i>Combinatorics of the alcove walk model.</i>	October 2020
Undergraduate Mathematics Seminar, Minneapolis, MN	
<i>Whittaker functions and the alcove walk model.</i>	July 2020
UMN REU Closing Session, Minneapolis, MN	
<i>Asymptotics of moments of Dirichlet L-series and Kac-Moody Lie algebras.</i>	Dec. 2019
Student Number Theory Seminar, Minneapolis, MN	
<i>Expectancy of fixed point permutations using generating functions.</i>	Mar. 2017
Undergraduate Mathematics Seminar, Minneapolis, MN	

EXPOSITORY TALKS

<i>k-Schur functions.</i>	July 2020
Minneapolis, MN	
<i>Quadratic reciprocity and higher reciprocity laws.</i>	May 2020
Minneapolis, MN	
<i>Symmetric spaces and Cartan's classification.</i>	Apr. 2020
Minneapolis, MN	
<i>Using holonomy to understand Riemannian manifolds.</i>	Dec. 2019
Minneapolis, MN	
<i>The root datum of special linear and projective linear groups.</i>	Dec. 2019
Presentation Session, Directed Reading Program, Minneapolis, MN	
<i>The functional equation for Riemann zeta over function fields.</i>	Apr. 2019
Minneapolis, MN	
<i>Root systems and Hecke algebras.</i>	Apr. 2019
Presentation Session, Directed Reading Program, Minneapolis, MN	
<i>Representation theory and group theory.</i>	Feb. 2018
Presentation Session, Directed Reading Program, Minneapolis, MN	

OUTREACH

Founder , Undergraduate Mathematics Virtual Lounge, University of Minnesota	2020 - Present
Organizer , Undergraduate Mathematics Research Seminar, University of Minnesota	2020 - Present
Officer , Math Club, University of Minnesota	2020 - Present
Officer , Math Club Study Group, University of Minnesota	2020 - Present
Author , The Modular Perspective, Blog	2019-Present
Panelist , Mathematics Project Minnesota, University of Minnesota	2020
Panelist , Mathematics Major Exploration Event, University of Minnesota	2020

SKILLS

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