

# HENRY TWISS

651.368.4884 — henryjtwiss@gmail.com — themodularperspective.com

## RESEARCH INTERESTS

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

## EDUCATION

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

## PUBLICATIONS AND PREPRINTS

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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

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### DOMESTIC

- 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

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### RESEARCH

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

### 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

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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

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

## PRESENTATIONS AND POSTERS

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### RESEARCH TALKS

<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 algebra.</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

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<b>Founder</b> , Undergraduate Mathematics Virtual Lounge, University of Minnesota	2020 - Present
<b>Organizer</b> , Undergraduate Mathematics Research Seminar, University of Minnesota	2020 - Present
<b>Officer</b> , Math Club, University of Minnesota	2020 - Present
<b>Officer</b> , Math Club Study Group, University of Minnesota	2020 - Present
<b>Author</b> , The Modular Perspective, Blog	2019-Present

## SKILLS

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<b>Programming Languages</b>	C++, Python
<b>Computer Algebra Systems</b>	SageMath, Mathematica
<b>Typeset</b>	LaTeX, Tikz, Beamer