

Ivan AIDUN
PhD Student at UW–Madison
my surname, wisc.edu

EDUCATION

University of Wisconsin, Madison Ph.D Mathematics <i>Thesis title: Arithmetic strength</i> <i>Advisor: Jordan Ellenberg</i>	Madison, WI August, 2026
Oberlin College B.A. Mathematics with Highest Honors	Oberlin, OH May 2019

PREPRINTS

Arithmetic strength

In preparation

A statistical investigation of a divisor-sum function joint with Lola Thompson
<https://arxiv.org/abs/2604.05284>

UNDERGRADUATE PUBLICATIONS

Gonality sequences of graphs

SIAM J. Discrete Math, **35** (2021), no. 2, p. 814-839

Joint with Frances Dean, Ralph Morrison, Teresa Yu, and Julie Yuan

On the gonality of Cartesian products of graphs

Electronic Journal of Combinatorics, **27** (2020), no. 4

Joint with Frances Dean, Ralph Morrison, Teresa Yu, and Julie Yuan

Treewidth and gonality of glued grid graphs

Discrete Applied Mathematics, **279** (2020), p. 1-11

Joint with Frances Dean, Ralph Morrison, Teresa Yu, and Julie Yuan

Graphs of gonality 3

Algebraic Combinatorics, **2** (2019), no. 6, p. 1197-1217

Joint with Frances Dean, Ralph Morrison, Teresa Yu, and Julie Yuan

HONORS AND AWARDS

UW Math Department Exceptional Teacher Award “For TAs past their first 2 years who have shown exceptional teaching.”	Spring 2024
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Rebecca Cary Orr Memorial Prize “To an outstanding graduating senior on the basis of outstanding achievement in undergraduate mathematics and promise of future professional accomplishment.”	Spring 2019
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Outstanding Presentation in the MAA Student Paper Sessions	MAA Mathfest Summer 2018
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John D. Baum Memorial Prize “To the Oberlin student with the highest score on the Putnam exam.”	Spring 2017
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CONFERENCE TALKS

- MAA Mathfest, Denver, Colorado, Student Paper Session, “Computing Geometric and Divisorial Gonality”, 2018.
- JMM, Baltimore, Maryland, AMS-MAA-SIAM Special Session on Research in Mathematics by Undergraduates, “Graphs of Gonality Three”, 2019. Joint with Julie Yuan, Frances Dean, and Teresa Yu.

SEMINAR TALKS

UW–Madison Number Theory Seminar

Arithmetic Strength of Curves

Spring 2024

GRADUATE SEMINAR TALKS

UW–Madison Graduate Number Theory Seminar

My Favorite Things About Elliptic Curves

Fall 2025

Rational Points on Curves, an Introduction to Arithmetic Geometry

Fall 2024

A Case Study in the Analogy Between $\mathbb{Z}$ and $\mathbb{F}_q[t]$

Fall 2022

Simple Sieving

Spring 2021

Golomb Topologies and Infinitely Many Primes

Spring 2020

UW–Madison Graduate Algebraic Geometry Seminar

Macaulay Duality and the Alexander-Hirschowitz Theorem

Fall 2025

How to find your favorite curve in your favorite projective space

Spring 2025

Who is a Variety? Why is a Scheme?

Fall 2024

Dreaming AG in Technicolor

Spring 2024

What is ... a Divisor?

Fall 2023

Gröbner Bases and Computations in Algebraic Geometry

Fall 2022

TEACHING

Teaching Assistant, University of Wisconsin–Madison

Math 234 Calculus–Functions of Several Variables

Spring 2026, Fall 2019

Math 340 Elementary Matrix and Linear Algebra

Fall 2025, Spring 2021, Fall 2020

Math 321 Applied Mathematical Analysis

Fall 2022

Math 240 Discrete Mathematics

Spring 2022

Math 221 Calculus and Analytic Geometry 1

Spring 2020

Head Teaching Assistant, University of Wisconsin–Madison

Math 222 Calculus and Analytic Geometry 2

Fall 2024, Spring 2023

Math 221 Calculus and Analytic Geometry 1

Spring 2024

Math 234 Calculus–Functions of Several Variables

Fall 2021

LSA (Lecturer)

Math 112 Algebra

Fall 2023

Algebra SEP Instructor

Summer 2022, 2023, 2024

(Summer course taught to 1st and 2nd year grad students to help prepare for qualifying exams.)

OWLS Leader, Oberlin College

Math 220 Discrete Mathematics

Spring 2019

SERVICE

UW–Madison AMS Student Chapter

Organizer

Fall 2023–Present

UW–Madison Math Directed Reading Program

Organizer

Spring 2023–Present

Mentor

Fall 2019, Fall 2021, Spring 2022, Spring 2023

UW–Madison Math Undergraduate Mentorship Program

Mentor

Fall 2022

UW–Madison Math Circle

Speaker, Volunteer

Fall 2021, Spring 2022

UW–Madison Graduate Peer Mentorship Program

Peer Mentor

2022-2023 Academic Year