

Ivan AIDUN
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EDUCATION

University of Wisconsin, Madison
Ph.D Mathematics

Madison, WI
In Progress

Oberlin College
B.A. Mathematics with Highest Honors

Oberlin, OH
May 2019

PUBLICATIONS AND PREPRINTS

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

TEACHING

LSA (Lecturer)

Math 112 Algebra

Fall 2023

Head Teaching Assistant, University of Wisconsin—Madison

Math 222 Calculus and Analytic Geometry 2

Spring 2023

Math 234 Calculus—Functions of Several Variables

Fall 2021

Teaching Assistant, University of Wisconsin—Madison

Math 321 Applied Mathematical Analysis

Fall 2022

Math 240 Discrete Mathematics

Spring 2022

Math 340 Elementary Matrix and Linear Algebra

Fall 2020-Spring 2021

Math 221 Calculus and Analytic Geometry 1

Spring 2020

Math 234 Calculus—Functions of Several Variables

Fall 2019

OWLS Leader, Oberlin College

Math 220 Discrete Mathematics

Spring 2019

MENTORSHIP AND OUTREACH

UW-Madison Math Directed Reading Program

Organizer

Spring 2023, Fall 2023

Mentor

Fall 2019, Fall 2021, Spring 2022

The Directed Reading Program (DRP) in the UW Madison Department of Mathematics pairs undergraduate students with graduate mentors for semester-long independent studies. During

the semester, the student will work through a mathematical text and meet weekly to discuss it with their mentor. In Fall 2019, I led a reading group on combinatorics and stack-sortable permutations; in Fall 2021, on number theory and cryptography; and in Spring 2022, on algebraic number theory. Now, I am one of the organizers of the program.

UW-Madison Math Undergraduate Mentorship Program

Mentor

Fall 2022

Together with another graduate student, I co-mentored a group of four undergraduate math majors, helping them navigate things like achieving their academic goals, finding good courses to take, talking to professors about independent projects, and applying to internships, REUs, and graduate school. We met once every two weeks for an hour to discuss their current goals and how to achieve them.

UW-Madison Math Circle

Speaker, Volunteer

Fall 2021, Spring 2022

The Madison Math Circle is a weekly series of mathematically based activities aimed at interested middle school and high school students. It provides a taste of exciting ideas in math and science, with presentations by graduate students, post docs, and professors. I volunteered to help run sessions, and I also gave a talk each semester.

CONFERENCE TALKS

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

SEMINAR TALKS

UW-Madison Graduate Number Theory Seminar

The Function Field Analogy and Zeta Functions

Fall 2022

Simple Sieving

Fall 2020

Golomb Topologies and Infinitely Many Primes

Fall 2019

UW-Madison Graduate Algebraic Geometry Seminar

What is ... a Divisor?

Fall 2023

Gröbner Bases and Computations in Algebraic Geometry

Fall 2022

HONORS AND AWARDS

Rebecca Cary Orr Prize

Oberlin College Math Department

Spring 2019

Phi Beta Kappa

Sigma Xi

Outstanding Presentation in the MAA Student Paper Sessions

Mathfest

Summer 2018

John D. Baum Memorial Prize in Mathematics

Oberlin College

Fall 2016