

Kyla Pohl

Mathematics PhD Candidate – Graduate Employee

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RESEARCH INTERESTS

I work in combinatorics with specific interest in Jack symmetric functions and hook length formulae.

EDUCATION

University of Oregon, PhD Mathematics Advisor: Ben Young	Expected: June 2026
University of Oregon, MS Mathematics	June 2021
St. Olaf College, BA, <i>magna cum laude</i> Major: Mathematics, Concentration: Japan Studies	May 2019
Budapest Semesters in Mathematics Summer Program	June - Aug 2017

PUBLICATIONS

K. Pohl, B. Young; “Jack Combinatorics of the Equivariant Edge Measure;” submitted for publication.
<https://arxiv.org/abs/2410.03912>

R. Gaybullayev, A. Khudoyberdiyev, K. Pohl; “Classification of solvable Leibniz algebras with abelian nilradical and $k - 1$ dimensional extension;” *Communications in Algebra*, 48:7 (2020), 3061-3078. <https://arxiv.org/pdf/1808.06171.pdf>

J. Dietz, M. Klein, S. Nycklemoe, K. Pohl; “Automorphism Orbits of some Metacyclic Groups;” *Pi Mu Epsilon Journal* 14, no. 9 (2018): 557-564.

PRESENTATIONS

Formal Power Series and Algebraic Combinatorics 2025 Sapporo <i>Poster: Jack Combinatorics of the Equivariant Edge Measure</i>	June 2025
University of Oregon Student Counting Seminar <i>A Markov Chain Monte Carlo Algorithm</i>	Feb 2025
Joint Mathematics Meetings 2025 <i>Jack Combinatorics of the Equivariant Edge Measure</i>	Jan 2025
University of Oregon Combinatorics Seminar <i>Jack Combinatorics of the Equivariant Edge Measure</i>	Nov 2024

Lane Community College Introduction to STEM Seminar <i>Partitions and Hook Walk Algorithms</i>	Nov 2024
University of Oregon Student Counting Seminar <i>Jack Combinatorics of the Equivariant Edge Measure</i>	Oct 2024
University of Oregon Combinatorics Seminar <i>An Introduction to Jack Symmetric Functions</i>	Nov 2023
University of Oregon Student Counting Seminar <i>An Introduction to Ramsey Theory</i>	Oct 2022
Joint Mathematics Meetings 2019 <i>Classification of solvable Leibniz algebras with abelian nilradical and $k - 1$ dimensional extension</i>	Jan 2019

TEACHING EXPERIENCE

Note: All classes conducted at the University of Oregon unless otherwise specified; * indicates remote, † indicates two sections.

Instructor of Record

Foundational Algebra and Mathematical Modeling	Fall 2024, †Fall 2023
Calculus I	Spring 2023
Precalculus II	Winter 2023, Fall 2022, Spring 2022
Precalculus I	Winter 2022, *Winter 2021
Elementary Statistics	*Summer 2020

Teaching Assistant

Elementary Statistics	Fall 2021, *Spring 2021, Winter 2025, Spring 2025
Precalculus I	*Fall 2020
Ballroom Dance I (St. Olaf College)	Fall 2018, Spring 2019

Tutoring

One-on-one Japanese language tutor (St. Olaf College)	Fall 2018
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Grading

Introduction to Combinatorics – Linear Algebra I – Abstract Algebra I (St. Olaf College)

PROFESSIONAL DEVELOPMENT

Journeys In Mathematics <i>Massachusetts Institute of Technology</i>	June 2024
Cascade Lectures in Combinatorics <i>University of Oregon</i>	May 2024
Summer School in Algebraic Combinatorics <i>Krakow, Poland</i>	July 2022
BRIDGES Conference <i>University of Utah</i>	July 2021
International Research Experience for Students <i>Tashkent, Uzbekistan</i>	May - July 2018

MENTORSHIP

UO Math Directed Reading Program	Jan 2023 - Present
<ul style="list-style-type: none">• Led an undergraduate student through readings• Advised student in writing and giving a 20 minute chalk talk on reading topic	
<i>Intransitive Dice</i>	Winter 2025
<ul style="list-style-type: none">• Student studied intransitive dice, basic tournament (graph) theory• Student built intransitive dice set generator and checker in Python and tournament generator in SageMath	
<i>Partially Ordered Sets</i>	Winter 2024
<ul style="list-style-type: none">• Student read beginning of Chapter 3 of Stanley's Enumerative Combinatorics• Reading culminated in student presenting the Fundamental Theorem of Finite Distributed Lattices	
<i>Ramsey Theory</i>	Winter 2023
<ul style="list-style-type: none">• Student explored introductory graph theory with an eye towards coloring via readings from A First Course in Graph Theory by Chartrand and Zhang• Reading lead to student providing an overview of Ramsey theory	
UO Math First-Year Graduate Mentorship Program <i>Mentor</i>	Sept 2022 - June 2024
<ul style="list-style-type: none">• Supported a student in the first year of their graduate program• Met informally with student one-on-one over lunch once each term to check in	

UO Women in Graduate Studies JUMP! Program

Oct 2022 - May 2023

- Mentored two undergraduate STEM students to further their personal, educational, and career skills in the sciences
- Discussed and guided interest in mathematics courses and summer programs with mentees

SERVICE

UO AWM Student Chapter

Sept 2019 - Present

Vice President

Sept 2024 - Present

- Scheduled and organized executive council meetings
- Assisted president with standard duties
- Coordinated aspects of general membership meetings

K-12 Committee Member

Sept 2021 - Present

- Developed lessons and activities to provide mathematics outreach to girls in local K-12 schools
- Guided children through mathematical explorations at local outreach events such as the Eugene Science Center's Girls' Science Adventure Days and Willagillespie Middle School STEAM Night.

Reading Room Committee Co-Chair

Sept 2020 - Present

- Managed a library of books highlighting underrepresented voices in mathematics
- Planned and hosted small group discussions about these topics

UO Math Directed Reading Program Organization Committee

Sept 2022 - Present

- Advertised the Directed Reading Program to undergraduates via the proliferation of posters and the annual Q & A event
- Organized Directed Reading Program all-participant meetings
- Corresponded with program participants regarding their program progress

Eugene Math Festival

Feb 2021 - Present

- Prepared pre-made exercises and activities for children ahead of the festival
- Set up and organized assigned booth before families arrived at the event
- Lead children through mathematics discovery activities

UO ADSE Nagoya Program

Feb 2025

- Delivered a short introductory talk introducing combinatorics to undergraduates from Nagoya University visiting UO
- Guided the students through tiling research activities to bolster understanding of day-to-day life in mathematics graduate school
- Conversed about attending graduate school in the US with these students

UO Mathematics Graduate Affairs Committee

Sept 2020 - Sept 2023

Student Representative

- Advised the department head on subjects pertaining to the graduate program
- Oversaw graduate student office occupancy changes
- Coordinated the first-year mentorship program and paired mentors and mentees

SCHOLARSHIP AND MEMBERSHIP

Association for Women in Mathematics

University of Oregon Mathematics Department 2019 Vitulli Scholar

Phi Beta Kappa Honor Society

Pi Mu Epsilon Honor Society

SKILLS

Japanese (Conversational)

SageMath/Python

L^AT_EX