

William Gustafson

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U.S. Citizen

EDUCATION

2022 (Expected) UNIVERSITY OF KENTUCKY, Ph.D., Mathematics
Thesis: “Lattice minors and Eulerian posets”
Ph.D. advisor Margaret Readdy
2017 UNIVERSITY OF CINCINNATI, M.S., Mathematics
2016 UNIVERSITY OF CINCINNATI, B.S., Mathematics
Minor: Information Technologies

AWARDS

2020 Clifford J. Swauger, Jr. Graduate Fellowship, University of Kentucky
Awarded to graduate students in mathematics who will benefit by making progress during the summer toward the Ph.D. degree in Mathematics

Dean’s List, University of Cincinnati
2012 - 2013 Cincinnatus Century Scholarship, University of Cincinnati
Awarded to the most promising students in all disciplines at U of Cincinnati

PROFESSIONAL CAREER

2016-2017 University of Cincinnati IT
Software Developer
Developed and deployed plugins for third party content management system

RESEARCH INTERESTS

Algebraic Combinatorics, Eulerian posets and regular cell complexes, lattices, polymatroids, poset topology, Coxeter systems.

PUBLICATIONS

- [1] Counterexample to a variant of a conjecture of Ziegler concerning a simple polytope and its dual, *Discrete & Computational Geometry*, 66, 1470-1472 (2021). <https://doi.org/10.1007/s00454-020-00253-5>
- [2] Polymatroids, closure operators and lattices, Submitted, arXiv:2112.04600.
- [3] Lattice minors and Eulerian posets, In preparation, 35pp, Dec 10, 2021.
- [4] The weak minor poset, In preparation, 18pp, Dec 10, 2021.

[5] Generalized lattice minors and the uncrossing poset, In progress.

COLLOQUIA AND SEMINAR TALKS

- 2021 “Lattice minors and Eulerian posets”
University of Kentucky Discrete CATS seminar
- 2021 “Lattice minors and Eulerian posets”
Graduate Online Combinatorics Colloquium
- 2021 “Lattice minors and Eulerian posets”
University of Minnesota Graduate Students Combinatorics Conference
- 2021 “Lattice minors and Eulerian posets”
UNC Charlotte Algebra Combinatorics and Number Theory Seminar
- 2020 “Combinatorics of the positroid stratification of the Grassmannian”
University of Kentucky Graduate Student Colloquium
- 2020 “A shelling of the uncrossing partial order on matchings”
University of Kentucky oral qualifying exam

CONFERENCES ATTENDED

- 2021 April Graduate Student Combinatorics Conference, University of Minnesota, online
- 2020 July International FPSAC conference, Bar Ilan University, online
- 2020 February Triangle Lectures in Combinatorics, University of North Carolina
- 2020 November Triangle Lectures in Combinatorics, North Carolina State University

TEACHING EXPERIENCE

UNIVERSITY OF KENTUCKY			
2021	Grader	MA 214	Differential Equations
2021	Instructor of Record	MA 322	Matrix Algebra
2021	Grader	MA 214	Differential Equations
2020	Recitation Leader	MA 114	Calculus II
2020	Instructor of Record	MA 214	Math for Elementary School Teachers
2019	Recitation Leader	MA 213	Calculus III
2019	Instructor of Record	MA 322	Matrix Algebra
2019	Instructor of Record	MA 109	College Algebra
2018	Recitation Leader	MA 113	Precalculus
2018	Teaching Assistant	MA 123	Elementary Calculus and Its Applications
2018	Recitation Leader	MA 113	Calculus I
2017	Recitation Leader	MA 162	Finite Math and Its Applications

OUTREACH

Co-organizer of discrete CATS seminar University of Kentucky Fall 2021-present

MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Mathematical Society

LANGUAGES

English native language

Basic Japanese

Programming Languages: C, C++, C#, Java, Python, Mathematica

References

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