

Uly Alvarez

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EDUCATION

Binghamton University <i>Ph.D. in Mathematical Sciences</i> Thesis Advisors: Laura Anderson and Ross Geoghegan	Binghamton, NY 2022
Binghamton University <i>M.S. in Mathematical Sciences</i>	Binghamton, NY 2017
Cal State Fullerton <i>B.A. in Mathematics</i> Undergrad Research Advisor: Scott Annin	Fullerton, CA 2015
Saddleback College <i>A.A. in Liberal Arts</i>	Mission Viejo, CA 2012

EMPLOYMENT

Assistant Professor <i>The University of Alabama</i>	9/2024 – present
Courses Taught: <ul style="list-style-type: none">* Discrete Math - Fall 2024* Introduction to General Topology - Fall 2024	
Post-Doc/Visiting Researcher <i>The University of Alabama</i> Mentor: Kyungyong Lee	9/2022 – 5/2024
Courses Taught: <ul style="list-style-type: none">* Calculus 1 - Fall 2022* Linear Algebra - Spring 2023* Discrete Math - Fall 2023	
Instructor of Mathematics <i>Binghamton University</i>	9/2018 – 5/2022
Courses taught: <ul style="list-style-type: none">* Precalculus - Fall 2019* Calculus 1 - Fall 2018, Fall 2021* Calculus 2 - Fall 2020* Calculus 3 - Spring 2019-2022	
Binghamton Enrichment Program Tutor <i>Binghamton University</i>	Summer 2019

- This was a program designed to prepare incoming students for the college life and for the expectations of Binghamton University.

Gaining Early Awareness for Undergraduate Programs
Binghamton University

9/2013-5/2015

- This was a collection of programs which provided several services for high school students with low-income backgrounds, such as tutoring during classes and assisting in workshops geared towards higher learning.

PREPRINTS AND PUBLICATIONS

- (co-written with Ross Geoghegan) *Topological Posets and Tropical Phased Matroids*. arxiv:2106.09753 (to appear in Discrete & Computational Geometry)
- *On the topology of corank 1 tropical phased matroids (thesis)*. arxiv:2302.11005 (submitted for publication)
- (co-written with Kyungyong Lee) *An explicit description for quiver Grassmannians of the Kronecker quiver*. arxiv:2403.19804 (submitted for publication)

CONFERENCES AND TALKS

- **The F1 World Seminar, Invited Speaker** *November 2023*
- **AMS Special Session on Building Bridges Between \mathbb{F}_1 -Geometry, Combinatorics and Representation Theory, Invited Speaker** *September 2023*
- **Cluster algebras and related topics in East Asia, Invited Speaker** *June 2023*
- **Workshop on Matroids and Tropical Combinatorics, Invited Speaker** *January 2023*
- **(Online) Workshops in Geometric Topology, Invited Speaker** *June 2021*
- **Spring Topology and Dynamics Conference Special Session on Geometric Group Theory, Invited Speaker** *May 2021*
- **AMS Special Session on “If You Build It They Will Come: Presentations by Scholars in the National Alliance for Doctoral Studies in the Mathematical Sciences”, Invited Speaker** *January 2021*
- **Binghamton University Graduate Conference of Algebra and Topology, Hear Organizer** *Fall 2019*
- **Binghamton University Graduate Conference of Algebra and Topology, Organizing Committee Member** *Fall 2018*

GRANTS AND AWARDS

- DSM research grant 2302620, co-PI, \$338,668, 2023-2026