Kyle Binder

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Education

The Ohio State University   2019 – Spring 2025 (Expected)
M.S. & Ph.D. (Expected) in Mathematics   *Advisor: Eric Katz*

Baylor University   2015 – 2019
B.A. in Mathematics and Linguistics

Papers

The Unipotent Tropical Fundamental Group
    with Eric Katz
    Preprint, arXiv:2406.13973.

Talks and Posters

Higher Tor Groups of Matroids   May 2024
    5 Minute Talk at Workshop of the Kentucky–Ohio Algebra Alliance (KOALA)

Higher Tor Groups of Matroids   April 2024
    OSU Combinatorics and Probability Seminar

What is the Cohomology of a Non-Compact Toric Variety?   December 2023
    Poster at Kentucky, Ohio, Indiana (KOI) Combinatorics Lectures

Higher Tor Groups of Stanley–Reisner Rings of Matroids   May 2023
    5 Minute Talk at Workshop of the Kentucky–Ohio Algebra Alliance (KOALA)

The Tropical Unipotent Fundamental Group   January 2023
    20 Minute Talk at Workshop on Matroids and Tropical Combinatorics (MaTroCom)

A Survey of Tropical Cohomology   September 2022
    OSU Algebraic Geometry Seminar

The Geometries of Hyperplane Arrangement Complements   April 2022
    OSU Student Algebraic Geometry Seminar

p-adic Integration on Hyperelliptic Curves   February 2021
    OSU Student Algebraic Geometry Seminar

Awards

Distinguished University Fellowship   2019-2020, 2024-2025

Tibor Radó Research Semester   Spring 2021

Teaching

OSU MATH 1131 – Business Calculus   Spring 2024
Recitation Instructor

OSU MATH 1131 – Business Calculus   Autumn 2022
Recitation Instructor

OSU MATH 1148 – College Algebra   Autumn 2021
Recitation Instructor

OSU MATH 1148 – College Algebra   Autumn 2020
Recitation Instructor, Virtual (Zoom)

Organizing

OSU Directed Reading Program (DRP)   2021 – 2025

Kentucky, Ohio, Indiana (KOI) Combinatorics Lectures   December 2023
Local Organizer