Michael Morrow

Department of Mathematics, University of Kentucky

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Education

University of Kentucky, Kentucky, USA

Ph.D. Mathematics

Advisor: Uwe Nagel August 2019 - Present

University of Kentucky, Kentucky, USA

M.S. Mathematics April 2021

Central Washington University, Washington, USA

B.S. Mathematics June 2019

Research Interests

Computational and combinatorial commutative algebra, asymptotic algebra

Publications and Preprints

Computing Gröbner Bases and Free Resolutions of OI-Modules with U. Nagel, submitted, 2023. Available at arXiv:2303.06725.

Awards and Fellowships

Summer Research Fellowship

University of Kentucky Summer 2023

Eaves Fellowship

University of Kentucky Summer 2022

Dale and Mary Jo Comstock Scholarship

Central Washington University Spring 2019

Talks and Presentations

Syzygy Computations in OI-Modules

• (Invited) Joint Mathematics Meetings, San Francisco, CA January 2024

Finite Computation of Gröbner Bases for OI-Modules

October 2023 • (Invited) Algebra and Geometry Seminar, University of New Mexico

• Qualifying Talk, University of Kentucky

December 2021

Computing Gröbner Bases and Free Resolutions of OI-Modules

• (Poster) BrianFest, University of Nebraska-Lincoln August 2023

Gröbner Bases and Syzygies of Sequences of Related Ideals

• Spectra Survey of Mathematics Conference, University of Kentucky May 2023 October 2022

• (Invited) AMS Fall Southeastern Sectional Meeting, University of Tennessee-Chattanooga

Computing Free Resolutions of OI-Modules

November 2022

• Algebra Seminar, University of Kentucky

Equivariant Gröbner Bases • Master's Talk, University of Kentucky April 2021

Conferences and Workshops

Joint Mathematics Meetings

San Francisco, CA January 2024

BrianFest

University of Nebraska-Lincoln August 2023 Summer CAMP

Professional development workshop

University of Nebraska-Lincoln August 2023

Commutative Algebra and its Interaction with Algebraic Geometry

SLMath summer school

University of Notre Dame May 2023

Spectra Survey of Mathematics Conference

University of Kentucky May 2023

AMS Fall Southeastern Sectional Meeting

University of Tennessee-Chattanooga October 2022

WARTHOG

Infinite-dimensional methods in commutative algebra

University of Oregon June 2022

Macaulay2 Conference

Cleveland State University May 2022

Teaching Experience

Instructor of Record, University of Kentucky

• Matrix Algebra Spring 2023

• College Algebra Summer 2021, Summer 2020

Recitation Leader, University of Kentucky

• Elementary Calculus Fall 2023 (Lead TA), Spring 2020

• Calculus II Fall 2022

• Calculus III Spring 2022

• Calc for Life Sciences Fall 2021

• Finite Math Spring 2021

• Algebra and Trig for Calculus Fall 2020, Fall 2019

May 2023, December 2022

Algebra Prelim Peer Coach, University of Kentucky

Service and Outreach

Algebra Seminar Co-organizer

University of Kentucky Fall 2023

Graduate Student Peer Mentor Program

University of Kentucky Fall 2020 - Fall 2022

Panel for Incoming First-Year Students

University of Kentucky August 2021

Julia Robinson Math Festival

University of Kentucky

November 2019

Kittitas Valley Math Circle

Central Washington University September 2017 - June 2019