

# Michael Morrow

Department of Mathematics, University of Kentucky

Office: POT 722

Email: [michael.morrow@uky.edu](mailto:michael.morrow@uky.edu)

Website: <https://michaelhmorrow.com>

## EDUCATION

---

### **University of Kentucky (Mathematics Ph.D. Program)**

*August 2019 - Present*

Research focus: Commutative Algebra

Advisor: Uwe Nagel (website: <http://www.ms.uky.edu/~uwenagel/>)

### **Central Washington University (B.S. Mathematics)**

*June 2017 - June 2019*

### **Everett Community College**

*September 2015 - June 2017*

## ACADEMIC FIELD EXPERIENCE

---

### **University of Kentucky Graduate Teaching Assistant**

*August 2019 - Present*

Recitation leader and primary instructor

### **Kittitas Valley Math Circle**

*September 2017 - June 2019*

Explored mathematical problem solving with students, teachers and parents

### **Math Tutor (Everett Community College)**

*2016-2017 School Year*

Tutored college students in Calculus 1-4 and Linear Algebra

### **UK Julia Robinson Math Festival**

*November 2019*

Introduced mathematics in a fun and non-competitive environment to middle school and high school students

## ACADEMIC AWARDS

---

### **Eaves Fellowship**

*University of Kentucky, Summer 2022*

### **Dale and Mary Jo Comstock Scholarship**

*Central Washington University, 2019*

### **Summer Research Fellowship**

*University of Kentucky, Summer 2023*

## CONFERENCES ATTENDED

---

### **Macaulay2 Conference**

*Cleveland State University, May 2022*

### **WARTHOG**

*University of Oregon, June 2022*

Infinite-dimensional methods in commutative algebra

### **AMS Fall Southeastern Sectional Meeting**

*University of Tennessee at Chattanooga, October 2022*

### **Spectra Survey of Mathematics Conference**

*University of Kentucky, May 2023*

## PRESENTATIONS

---

### **Mt. Stuart Math Seminar**

*“Perfect Subsets of the Unit Interval: Some Surprising Results about the Real Numbers”*

*Central Washington University, April 2019*

Slides: [https://michaelhmorrow.com/files/chipset\\_pres.pdf](https://michaelhmorrow.com/files/chipset_pres.pdf)

### **Master’s Presentation**

*“Equivariant Gröbner Bases”*

*University of Kentucky, April 2021*

Slides: [https://michaelhmorrow.com/files/masters\\_pres.pdf](https://michaelhmorrow.com/files/masters_pres.pdf)

### **Qualifying Exam**

*“Finite Computation of Gröbner Bases for  $OI$ -Modules”*

*University of Kentucky, December 2021*

Slides: [https://michaelhmorrow.com/files/qual\\_pres.pdf](https://michaelhmorrow.com/files/qual_pres.pdf)

### **AMS Fall Southeastern Sectional Meeting**

*“Gröbner Bases and Syzygies of Sequences of Related Ideals”*

*University of Tennessee at Chattanooga, October 2022*

Website: <https://meetings.ams.org/math/fall2022se/meetingapp.cgi/Paper/16457>

Slides: [https://michaelhmorrow.com/files/gseq\\_v1.pdf](https://michaelhmorrow.com/files/gseq_v1.pdf)

### **Algebra Seminar**

*“Computing Free Resolutions of  $OI$ -Modules”*

*University of Kentucky, November 2022*

Slides: [https://michaelhmorrow.com/files/compfree\\_algsem.pdf](https://michaelhmorrow.com/files/compfree_algsem.pdf)

### **Spectra Survey of Mathematics Conference**

*“Gröbner Bases and Syzygies of Sequences of Related Ideals”*

*University of Kentucky, May 2023*

Slides: [https://michaelhmorrow.com/files/gseq\\_v2.pdf](https://michaelhmorrow.com/files/gseq_v2.pdf)

## TEACHING - UNIVERSITY OF KENTUCKY

---

### As recitation leader:

- MA109 College Algebra
- MA110 Algebra and Trig for Calculus
- MA123 Elementary Calculus
- MA137 Calc for Life Sciences
- MA162 Finite Math
- MA213 Calculus III
- MA114 Calculus II

### As primary instructor:

- MA322 Matrix Algebra

## MISCELLANEOUS

---

### **OIGroebnerBases.m2**

A Macaulay2 package for computation in OI-modules over Noetherian polynomial OI-algebras

See <https://github.com/morrowmh/OIGroebnerBases>