

# HOÀI ĐÀO

## Curriculum Vitae

Department of Mathematics  
McBryde 529  
Virginia Tech

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<https://sites.google.com/view/hoaidao88>

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### Education:

- Ph.D., Mathematics, Oklahoma State University, May 2025  
Ph.D. Dissertation: *Polytopal resolutions of dense ideals*. Advisor: Jeffrey Mermin.
- M.S., Mathematics, Vinh University, Vietnam, December 2012
- B.A., Mathematics Education, Vinh University, Vietnam, June 2010

### Employment:

- **Instructor**, Virginia Tech, August 2025-present.
- **Teaching Assistant**, Oklahoma State University, January 2020-May 2025.
- **Expert**, NEWTATCO, Vietnam Academy of Science and Technology, July 2014-December 2019.

### Teaching and Service Awards:

- Jeanne Agnew Outstanding Teaching Assistant Award (in the amount of \$450), 2023

### Other Fellowships:

- Bertholf Endowed Graduate Fellowship (in the amount of \$4,000), 2023
- Jeanne L. Agnew Fellowship (in the amount of \$800), 2021

### Research Interests:

- Commutative Algebra, Combinatorics, and Algebraic Geometry

## Teaching Experience:

At Virginia Tech

- [MATH 1255](#), Fall 2025

At Oklahoma State University

- **Preparation for Calculus**, Spring 2022, Fall 2022.  
Primary Instructor
- **Business Calculus**, Spring 2021, Fall 2021.  
Teaching Assistant (Grading and Problem Sessions)
- **Calculus I**, Spring 2023, Fall 2023, Fall 2024.  
Primary Instructor
- **Calculus III**, Summer 2021.  
Grader
- **Calculus III**, Spring 2024.  
Primary Instructor
- **Introduction to Analysis**, Spring 2025.  
Grader

## Preprints:

1. Hoài Đào and Jeffrey Mermin, *Resolutions of pinched power ideals*, In preparation.
2. Hailong Dao, Hoài Đào, and Quang Minh Nguyen, *On the Hirsch diameter of monomial ideals*. In preparation.
3. Hailong Dao, Hoài Đào, and Sreehari Suresh Babu, *Combinatorics of Linear Resolutions*, In preparation.
4. Hailong Dao, Hoài Đào, and Ritika Nair, *Ideals with regularity three*. In preparation.

## Invited Research Talks:

- “Commutative Algebra and Its Interactions with Geometry and Combinatorics” at the [Joint Mathematics Meetings 2026](#) in Washington, D.C., January 6, 2025
- [AMS Southeastern Sectional Meeting at Tulane University](#), October 03-05, 2025
- [AMS Spring Western Sectional Meeting at California Polytechnic](#), May 03-04, 2025
- [AMS Spring Central Sectional Meeting at University of Kansas](#), March 29-30, 2025

- [AMS Spring Western Sectional Meeting at San Francisco State University](#), May 05, 2024
- Algebra Seminar, Department of Mathematics, New Mexico State University, March 18, 2024

## Conferences and Workshops Attended:

- Participant, [2025 Program for Women+ and Mathematics](#), Institute for Advanced Study, May 18-23, 2025
- Poster, [SLAM 2025](#), Arizona State University, March 01-02, 2025
- Participant, [UWE Fest 2024](#), University of Notre Dame, August 12-16, 2024
- Participant, [Recent Developments in Commutative Algebra](#), University of California April 15-19, 2024
- Participant, [SLAM 2024](#), University of Oklahoma, 24-25 February 2024
- Participant, [Introductory Workshop: Commutative Algebra](#), University of California, January 22 -26, 2024
- Participant, [Connections Workshop: Commutative Algebra](#), University of California, January 18 -19, 2024
- Poster, [KUMUNU 2023](#), University of Missouri, September 23 - 24, 2023
- Poster, [Brianfest 2023](#), University of Nebraska-Lincoln, August 11-12, 2023
- Poster, [SLAM 2023](#), University of North Texas, March 4 - 5, 2023
- Poster, [KUMUNU 2022 \(Fall conference\)](#), University of Nebraska-Lincoln, October 8 - 9, 2022
- Poster, [2022 AWM Research Symposium](#), University of Minnesota, June 16 – 19, 2022