KEVIN, DINH TUAN, DAO

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Personafl Website: https://sites.google.com/view/kevindao
Basic Information: U.S. Citizen born April 26th, 2002 in Fountain Valley, California, USA.
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EDUCATION

University of Wisconsin - Madison *Fall 2022 - Present*
Mathematics PhD student. Expected graduation: Spring 2028.
University of Wisconsin - Madison *Fall 2022 - December 2023*
Masters of Arts - Foundations for Research
University of California - San Diego *Summer 2020 - Spring 2022*
BSc in Mathematics. Summa Cum Laude with a 3.967 GPA.
Coastline Community College *Winter 2020 - Summer 2020*
University of Minnesota - Twin Cities *Fall 2019*
Coastline Community College *Fall 2018 - Summer 2019*
California High School Proficiency Exam *Summer 2018*
Los Amigos High School in Fountain Valley from Fall 2016 to Spring 2018

CURRENT INTERESTS

Algebraic geometry, commutative algebra, homological algebra, and number theory.

ACADEMIC HONORS, AWARDS, AND GRANTS

NSF Graduate Research Fellow *Fall 2023 - Fall 2026*
On tenure for 2023-2024 academic year.
Passed Qualifying Exams in Algebra and Algebraic Topology *Summer 2022*
UCSD Errett A. Bishop Memorial Scholarship *Fall 2021*

TEACHING

Teaching Assistant at UW Madison
Math 240: Introduction of Discrete Mathematics *Summer 2024*
Math 320: Linear Algebra and Differential Equations *Spring 2024*
Math 222: Calculus and Analytic Geometry II *Spring 2023*
Math 222: Calculus and Analytic Geometry II *Fall 2022*

Grader at UW Madison
Math 763: Algebraic Geometry I *Fall 2023*
Math 742: Abstract Algebra II *Spring 2023*

CONFERENCES AND WORKSHOPS ATTENDED

Local Systems in Algebraic Geometry at OSU *May 2024*
Airzona Winter School at University of Arizona *March 2024*
SCGP Winter School on New Applications of Mixed Hodge Modules *January 2024*
Western Algebraic Geometry Symposium at Washington University *November 2023*

Invitation to Algebraic Statistics and Applications at UChicago *September 2023*
GAEL XXX at University of Warwick *July 2023*
Syzygies and Regularity Workshop at UIC *April 2023*
CA+ Conference at UMN *April 2023*
Arizona Winter School at University of Arizona *March 2023*
SCGP Workshop on Birational Complexity of Algebraic Varieties *December 2022*

TALKS

"A Survival Guide to Sheaf Cohomology" *Spring 2024*
Graduate Algebraic Geometry Seminar at UW Madison
"Introduction to D_X-Modules" *Fall 2023*
Graduate Algebraic Geometry Seminar at UW Madison
"Enriques-Kodaira Classification and its Minimal Model Program" *Spring 2023*
==Graduate Algebraic Geometry Seminar at UW Madison
"Local Cohomology" *Fall 2022*
=Graduate Algebraic Geometry Seminar at UW Madison
"Cohen-Macaulay Rings" *Spring 2021*
Presented at the end of the RTG Directed Reading at UCSD.
"Localization of Commutative Rings" *Fall 2019*
Presented at the end of the DRP at UMNTC.

ORGANIZING

UW Madison Graduate Algebraic Geometry Seminar *Spring 2024*
The Arithmetic of Abelian Varieties Seminar *Summer 2023*

EXTRA-CURRICULAR

UW-Madison Directed Reading Program. *Fall 2022, Fall 2023*
I helped organize the DRP which pairs graduate students with undergraduate mentees to do a reading project.
Directed Reading Projects Mentored. *Fall 2022*
Fall 2022: I mentored two undergraduate students in reading about Algebraic Curves and Riemann Surfaces.
Fall 2023: I mentored three undergraduate students in reading "Ideals, Varieties, and Algorithms" by Cox, O'Shea, Little.
Courses Audited
Math 203ABC: Algebraic Geometry at UCSD for 2020-2021, Math 204A: Number Theory at UCSD for Fall 2020
Reading Courses and Projects
— Reading Seminar on "Abelian Varieties, Theta Functions, and the Fourier Transform" by Polishchuk with Dima Arinkin *Fall 2023*
— Reading Seminar on "Fourier Mukai Transforms in Algebraic Geometry" by Huybrechts with Dima Arinkin *Spring 2023*
— Reading Seminar on "Geometric Invariant Theory" by Mumford with Dima Arinkin *Spring 2023*
— Reading Seminar on "Lectures on Curves on an Algebraic Surface" by Mumford with Dima Arinkin *Fall 2022*

— Reading seminar on Global Class Field Theory with various graduate students. Text: Algebraic Number Theory by Cassels and Fröhlich and et. al. *Spring 2022*
— Reading seminar on elliptic curves with Alina Bucur and Kiran Kedlaya. Texts: *The Arithmetic of Elliptic Curves* by Silverman. *Winter 2022*
— Reading course on representation theory with Daniel Rogalski. Texts: *Introduction to Representation Theory* by Etingof et. al. and *Representations and Characters of Groups* by James and Liebeck. *Winter 2022*
— Reading course on homological algebra with Daniel Rogalski. Texts: *An Introduction to Homological Algebra* by Weibel and *An Introduction to Homological Algebra* by Rotman. *Fall 2021*
— Reading course on analytic number theory with Alina Bucur. Texts: *Introduction to Analytic Number Theory* by Apostol, *Multiplicative Number Theory* by Davenport, and *Problems in Analytic Number Theory* by Murty. *Summer 2021*
— Project studying explicit equations for surfaces of general type with Jack J. Garzella. The project required the use of homotopy continuation and Julia. *Summer 2021*

UCSD RTG Undergraduate Directed Reading *Spring 2022*
My mentors were Alex Mathers and Tom Grubb. Text: *Primes of the Form* $x^2 + ny^2$ by Cox.

UCSD RTG Undergraduate Directed Reading *Spring 2021*
My mentor was Jack J. Garzella. Text: *Cohen-Macaulay Rings* by Bruns and Herzog.

UMNTC Math Directed Reading Program *Fall 2019*
My mentor was Michael Loper. Texts: *Commutative Algebra: With a View Toward Algebraic Geometry* by Eisenbud and *Introduction to Commutative Algebra* by Atiyah and Macdonald.

MISCELLANEOUS SKILLS

Python, Julia, LaTeX, Macaulay2, Vietnamese proficiency.

REFERENCES

– Professor Dima Arinkin
University of Wisconsin - Madison
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– Professor Daniel Rogalski.
University of California San Diego.
1-(858)-534-4421.
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– Professor Elham Izadi.
University of California San Diego.
1-(858)-534-2638.
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– Professor Alina Bucur
University of California San Diego.
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