ANH TRAN

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EDUCATION

Rice University, Houston, TX 2021
B.S. in Mathematics
University of Illinois at Chicago, Chicago, IL 2022 - (expected) 2027
Ph.D. in Mathematics

EXPERIENCE

Teaching Experience

○ Rice University: TA for MATH 354 Honors Linear Algebra, 356 Group Theory, 376 Algebraic Geometry, STAT 312 Statistics and COMP 382 Algorithms. Responsibilities included grading, holding office hours and assisting in lab sessions.

○ UIC: TA for MATH 125 Elementary Linear Algebra, 210 Calculus III. Responsibilities include leading weekly sessions, grading, and office hours.

Organizational Experience

○ Organizer, Kobayashi-Hitchin correspondence reading group Spring 2025
○ Organizer, Moduli of K3 surfaces reading group Fall 2024
○ Co-organizer, Graduate Algebraic Geometry seminar 2024-2025
○ Co-organizer, Graduate Number Theory seminar Spring 2024

Mathematics Research

○ Summer 2017 REU, University of Minnesota, Twin Cities. Worked on a question about the characteristic polynomials of certain pattern avoiding permutations. Report here.

CONFERENCES, WORKSHOPS

Unlikely Intersection – Arizona Winter School March 2023
Hodge theory and o-minimality – CIRM, Luminy January 2024
Summer Research Institute in Algebraic Geometry - Fort Collins, CO July 2025

GRADUATE SEMINAR TALKS

Graduate AG Seminar. Introduction to Hodge Theory – Construction of moduli of K3 surfaces – General curve of genus 6 – Decompositions in derived categories – Generic Torelli theorem – Connectedness of Brill-Noether loci.

Graduate NT Seminar. Root systems of algebraic groups – Jacobian varieties.

Hodge Theory Seminar. Mumford-Tate group – Deligne's finiteness theorem – Structure of period map – Limit Mixed Hodge Structure – Kummer surfaces – Basics of D-modules – Intersection cohomology – Hodge modules over a curve.

HONORS, AWARDS

2018 Hubert E. Bray Prize, given annually to the most outstanding mathematics junior.

TECHNICAL SKILLS

Fluent in C, C++, Python.