Zhong Zhang

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EDUCATION

The University of Chicago, Chicago, IL　　　　　　　Sep 2023 - present
Second year PhD Student

University of Pennsylvania, Philadelphia, PA　　　　Sep 2020 - May 2023
Bachelor of Arts and Master of Arts in Mathematics
Phi Beta Kappa, Summa Cum Laude
- Thesis Advisor: Mona Merling and Thomas Brazelton
- Thesis Title: "Milnor Numbers of Complex Hypersurfaces"

Smith College, Northampton, MA　　　　　　　　　Sep 2019 - May 2020

INTERESTS　　Topology and Geometry

RESEARCH EXPERIENCE

REU participant, **University of Chicago**　　　　　June 2022 - Aug 2022
- Worked on Quillen's proof of the Adams Conjecture and how it relates to the K-theory of finite fields, joint with Matthew Niemiro, advised by Peter May.
- Paper: http://math.uchicago.edu/ may/REU2022/REUPapers/Niemiro.pdf

DIRECTED READINGS

Participant, **Riemann Surfaces**　　　　　　　　　Mar 2024 - present
- Learned about Riemann surfaces from complex analytic, algebraic, and hyperbolic perspectives, supervised by Eduard Looijenga.

Participant, **Intersection theory**　　　　　　　　Jan 2024 - Mar 2024
- Read 3264 & All That Intersection Theory in Algebraic Geometry, supervised by Akhil Matthew.

Participant, **Hodge Theory**　　　　　　　　　　Oct 2023 - Dec 2023
- Read about real and complex hodge theory, with an emphasis on its applications to Kahler manifolds like smooth projective varieties, supervised by Benson Farb.

Participant, **Linear Algebraic Groups**　　　　　　May 2023 - August 2023
- Read about linear algebraic groups, supervised by Julia Hartmann.

Participant, **Vertex Operator Algebra**　　　　　　Sep 2022 - Dec 2022
- Read about vertex operator algebras and its connections with moduli space of curves, supervised by Angela Gibney.

Mentee, **Penn Directed Reading Program**　　　　　Sep 2021 - May 2023
- Milnor numbers and their generalizations, mentored by Thomas Brazelton
- Algebraic geometry from an $\mathbb{A}^1$-viewpoint, mentored by Thomas Brazelton
- Enumerative Geometry and String Theory, mentored by Thomas Brazelton
- Enumerative Geometry, mentored by Thomas Brazelton

TALKS	**eCHT Seminar on Algebraic Vector Bundles**	
	Quillen's solution to Serre's problem	Sep 2023
	Penn Geometry/Topology Grad Seminar	
	$\mathbb{A}^1$-Milnor numbers	March 2023
	Quillen's work on the Algebraic K-theory of Finite Fields	Sep 2022
	Reading Project Presentations	
	Polynomial roots and convex polyhedra	Apr 2023
	Modules over Vertex Operator Algebras	Nov 2022
	Excess Intersection in Enumerative Geometry	Apr 2022
	Enumerative Geometry	Dec 2021
	Class Presentations	
	Mackey Functors, MATH 520 Representation Theory	May 2022
	Function Spaces, MATH 500 Topology	Dec 2021
TEACHING	*TA for (Honors) Calculus*, **University of Pennsylvania**	Jan 2023 - May 2023
	TA for Multi-Variable Calculus, **University of Pennsylvania**	Sep 2022 - Dec 2022
	TA for Bio Stats, **University of Pennsylvania**	Jan 2022 - May 2022
	TA for Single-Variable Calculus, **University of Pennsylvania**	Sep 2021 - Dec 2021
	TA for Discrete Math, **Smith College**	Jan 2020 - May 2020
SERVICE	*Board Member*, **Association for Women in Math**	April 2023 - present
	Board Member, **Penn Undergraduate Math Society**	Sep 2022 - May 2023
	Board Member, **Association for Women in Math**	Sep 2022 - May 2023
AWARDS &	*McCormick Fellowship*, **The University of Chicago**	Fall 2023
FELLOWSHIPS	*Departmental Good Teaching Award*, **University of Pennsylvania**	Fall 2022
	Second Prize, Class of 1880 Prize, **University of Pennsylvania**	Apr 2021
LANGUAGES	Mandarin (Native), English (Advanced), French (Intermediate)	