

Kaden Saucedo

Boyd 427E, Department of Mathematics
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EDUCATION

University of Georgia <i>Ph.D. in Mathematics (in progress), Advisor: Valery Alexeev</i>	August 2023 – Present Athens, GA
Kansas State University <i>Bachelor of Science in Mathematics</i>	May 2021 – May 2023 Manhattan, KS
Wichita State University	August 2019 – May 2021 Wichita, KS

RESEARCH INTERESTS

Algebraic geometry; moduli of surfaces; KSBA compactifications; stable pairs; del Pezzo surfaces; intersection theory; κ -classes; birational geometry.

RESEARCH

Kappa Classes on Moduli of Weighted Stable Marked del Pezzo Surfaces	2025 – Present
<ul style="list-style-type: none">• Study KSBA compactifications of moduli spaces of weighted stable marked del Pezzo surface pairs.• Compute κ-classes using explicit intersection theory, boundary stratifications, and degenerations of stable pairs.	

TALKS

Kappa Classes on Moduli of Stable Marked Quartic del Pezzo Surfaces <i>Graduate topology & Algebraic Geometry Student Seminar, University of Georgia</i>	Spring 2026
Type III Degenerations of K3 Surfaces and a Preview of an Integral-Affine Sphere <i>K3 Surface Seminar, University of Georgia</i>	Spring 2026
Moduli of Weighted Stable Marked Quartic del Pezzo Surfaces <i>Graduate Student Seminar, University of Georgia</i>	Spring 2026
Type III Degenerations and Cusps of the K3 Moduli Space <i>K3 Surface Seminar, University of Georgia</i>	Spring 2026
Moduli of K3 Surfaces and Baily–Borel Compactification <i>Graduate topology & Algebraic Geometry Student Seminar, University of Georgia</i>	Spring 2026
K3 Surfaces and Lattices <i>Graduate Student Seminar, University of Georgia</i>	Spring 2026
Period Maps, Degenerations, and the Boundary of K3 Moduli <i>K3 Surface Seminar, University of Georgia</i>	Fall 2025
Moduli of Quartic del Pezzos <i>Graduate Student Seminar, University of Georgia</i>	Fall 2025
Introduction to del Pezzo Surfaces <i>Graduate topology & Algebraic Geometry Student Seminar, University of Georgia</i>	Fall 2025
Mirror of the Cubic Surface <i>Graduate topology & Algebraic Geometry Student Seminar, University of Georgia</i>	Spring 2025
Introduction to Cubic Surfaces <i>Graduate Student Seminar, University of Georgia</i>	Spring 2025
Lefschetz Theorem of $(1, 1)$-Classes <i>Graduate topology & Algebraic Geometry Student Seminar, University of Georgia</i>	Spring 2025
Introduction to GAGA <i>Graduate Student Seminar, University of Georgia</i>	Fall 2024
Introduction to Riemann Surfaces <i>Graduate topology & Algebraic Geometry Student Seminar, University of Georgia</i>	Fall 2024

What is the Maximal Spectrum?
Graduate Student Seminar, University of Georgia

Spring 2024

What is a Quiver?
Graduate Student Seminar, University of Georgia

Fall 2023

FELLOWSHIPS AND SUPPORT

NSF RTG: Geometry and Topology, University of Georgia
Graduate student support, NSF Award No. 2342252

Summer 2025 – Spring 2027

TEACHING EXPERIENCE

Instructor of Record, MATH 2250: Calculus I
University of Georgia

Spring 2025
Athens, GA

Instructor of Record, MATH 1113: Precalculus
University of Georgia

Fall 2024
Athens, GA

Recitation Instructor, MATH 2200: Business Calculus
University of Georgia

Spring 2024
Athens, GA

Grader, MATH 3510: Multivariable Mathematics II
University of Georgia

Spring 2024
Athens, GA

Recitation Instructor, MATH 2200: Business Calculus
University of Georgia

Fall 2023
Athens, GA

Grader, MATH 3500: Multivariable Mathematics
University of Georgia

Fall 2023
Athens, GA

MENTORING

Directed Reading Program Mentor, Number Theory
University of Georgia

Spring 2026
Athens, GA

- Reading: George E. Andrews, *Number Theory*.

Directed Reading Program Mentor, Algebraic Surfaces
University of Georgia

Fall 2025
Athens, GA

- Reading: Arnaud Beauville, *Complex Algebraic Surfaces*.

Directed Reading Program Mentor, Category Theory
University of Georgia

Spring 2025
Athens, GA

- Reading: Saunders Mac Lane, *Categories for the Working Mathematician*.

SERVICE AND LEADERSHIP

Vice President, UGA Chapter of the American Mathematical Society
University of Georgia

Fall 2025 – Spring 2026
Athens, GA

Committee Member, Graduate Student Seminar
University of Georgia

Fall 2025 – Spring 2026
Athens, GA

Committee Member, Graduate topology & Algebraic Geometry Student Seminar
University of Georgia

Fall 2024 – Spring 2026
Athens, GA

Volunteer, UGA Math Circle
University of Georgia

Fall 2025 – Spring 2026
Athens, GA

Committee Member, UGA Directed Reading Program
University of Georgia

Spring 2026
Athens, GA

Volunteer, UGA High School Math Tournament
University of Georgia

Fall 2025
Athens, GA