Austin T. Myers

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Education

Florida State University Tallahassee, FL
B.S.(in progress), Pure Mathematics. GPA: 3.98 Graduation Date: Spring, 2026

Relevant Coursework: Introduction to Advanced Mathematics (A), Advanced Calculus I (A), Introduction to Abstract Algebra I (A), Advanced Calculus II (A), Introduction to Abstract Algebra II (A), Topics in Number Theory (A), Introduction to Differential Geometry Groups, Rings, and Vector Spaces I (graduate) (A), Topology I (graduate) (A), Commuative Algebra (graduate) (A), Topology II (graduate) (A), Functional Analysis (graduate) (A), Algebraic Geometry (A), Differential Topology and Manifolds (A), Measure and Integration I (graduate) (taking), Complex Analysis (graduate) (taking), Intersection Theory (taking), Partial Differential Equations I (taking)

Experience

Quantum Computing at Florida State University Tallahassee, FL
Researcher December 2023 – August 2025

- Worked in quantum information, particularly variational quantum algorithms
- Worked on representation theory of Lie algebras and harmonic analysis on groups applied to quantum machine learning

PolyMath Jr. REU Online
Participant Summer 2025

- Worked on a problem in algebraic geometry and representation stability using motivic probability
- Computed stable multiplicities of irreducible representations in the cohomology of configuration spaces of the affine and projective lines, as well as elliptic curves
- Computed analogous results in spaces of smooth hypersurface sections of projective spaces of dimension > 1.

Conferences/Workshops

- University of Notre Dame Thematic Program in Discrete Groups in Topology and Algebraic Geometry - Summer 2025
- Polymath Jr. 2025 Virtual Conference
- IEEE Quantum Week 2025
- Preliminary Arizona Winter School 2025
- Joint Mathematics Meetings 2026 (to attend)

Talks

- Connections between representation stability and Λ-distributions - Polymath Jr. Virtual Conference (2025)
- Cohomology, Representation Theory, and Probability - Pi Mu Epsilon Florida Beta Chapter (2025)
- The Fontaine-Mazur Conjecture and Modularity - Honors thesis defense (2025)
- Connections between representation stability and Λ-distributions - Joint Mathematics Meetings (2026, to give)

Leadership & Activities

Pi Mu Epsilon, Florida Beta Chapter Tallahassee, FL
Vice President of Communications Summer 2023 – Spring 2024

- Worked in outreach for the organization
- Managed the social media accounts and also created the website for the organization

Phi Beta Kappa, Alpha of Florida Chapter Tallahassee, FL
Member Spring 2024 - Present

Programming Languages (and similar): Proficient in Python, C++, Java, LaTeX, SAGE, Maple

Papers

- *Lambda-distributions and the cohomology of configuration spaces of varieties with coefficients in local systems* (with S. Howe and X. He), in preparation
- *ABS-Q: An Effective Analysis-by-Synthesis Framework for Recovering Signals from Noisy Quantum Outputs* (with P. Tran, J. Scally, R. Carmichael, H. Yi, X. Liu and B. Arigong), IEEE Quantum Week 2025
- *HAMMR-L: Noise Reduction in Quantum Outcomes Using a Richardson-Lucy Deconvolution Algorithm for Quantum State Graphs* (with J. Scally, R. Carmichael, P. Tran and X. Liu), submitted, (2025)
- *QRFM : Quantum Recursive Feature Machine* (with H. Yi, P. Tran, J. Scally, R. Carmichael, X. Liu and W. Yu), submitted, (2025)