

Department of Mathematics, Morgan State University, 1700 E Cold Spring Lane, Baltimore, MD 21251.

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Acronyms: American Mathematical Society (AMS); Mathematical Association of America (MAA); National Association of Mathematicians (NAM); National Science Foundation (NSF).

Summary: I work in the areas of Lie superalgebras and representation theory, specifically in the study of reduction algebras as deformations of universal enveloping algebras and in application toward the decomposition problem.

Education

- 2023-2028 **PhD in Mathematics**, Morgan State University.  Student.
Co-advisors: Dwight Anderson Williams II and Asamoah Nkwanta.
Dissertation topic: Superderivations and the reduction problem.
- 2021-2023 **MA in Mathematics**, Morgan State University.  Alumnus.
- 2019-2021 **BS in Mathematics**, Morgan State University.  Alumnus.
- 2015-2018 **AS in Mathematics**, Community College of Baltimore County.

Positions

Academic

- 2026-curr **Graduate Research Trainee**, NSF Grant DMS-2503008, Morgan State University.
Supervisor/PI: Dwight Anderson Williams II, PhD.
- 2022-2025 **Graduate Research/Teaching Assistant**, Department of Mathematics, Morgan State University.
- 2021-2022 **Intern**, National Nuclear Data Center, Brookhaven National Lab,
- 2020-2020 **DIMACS REU research Associate**, Rutgers University,
- 2019-2020 **Learning Assistant**, Department of Mathematics, Morgan State University.

Honors

- 2026 AMS Sectional Travel Grant, \$400.

Research

Writing

In Progress

Corank-one orthosymplectic reduction superalgebras.
McLaurin, MK.

Presentations

Posters

- Jul 2026 “Corank-one orthosymplectic reduction superalgebras”, International Congress of Mathematicians 2026, Philadelphia, PA.
- Jun 2026 “Superderivations and an orthosymplectic reduction superalgebra”, Conference for African American Researchers in the Mathematical Sciences 2026, Princeton University.
- Jan 2021 “On the relativistic quantum mechanics of N -body electron-photon systems in 1+1 dimensions”, MAA Student Poster Session on Differential Equations / Dynamical Systems, The Virtual Joint Mathematics Meetings (original host city: Washington D.C.).

Conferences

- Jul 2026 International Congress of Mathematicians. Philadelphia, PA.
- Jul 2026 International Category Theory Conference. Johns Hopkins University. Baltimore, MD.
- Jun 2026 Conference for African American Researchers in the Mathematical Sciences. Princeton University. Princeton, NJ.
- Apr 2026 MAA Maryland–District of Columbia–Virginia Section Spring Meeting. Frederick Community College. Frederick, MD.
- Jan 2026 The Joint Mathematics Meetings. Washington, D.C.

Teaching and Mentoring

Instructor of Record

Morgan State University: **Undergraduate:** MATH 001 Fundamentals of Mathematics (2 sections), MATH 113 Intro to Math Analysis I (10 sections).

Guest Lecturer

Morgan State University: **Graduate:** MATH 505 Abstract Algebra I; MATH 506 Abstract Algebra II.
Undergraduate: MATH 340 Intro to Differential Equations.

Teaching Assistant

Morgan State University: MATH 113 Intro to Math Analysis I (10 sections).

Learning Assistant & Tutoring

Morgan State University: MATH 113 Intro to Math Analysis I, MATH 114 Intro to Math Analysis II

Integrated Mentoring

2025-curr **The SuperSpace**, Morgan State University.
Undergraduates: Abhinav Poudel, Morgan State University. Dissandou Becolli, Rochester Institute of Technology.

Service

2026-curr Program: **Fresh Research in Algebra, Combinatorics, and Toplogy Active Learning Seminar**.
Co-organizer: Dwight Anderson Williams II.

2025-2026 Program: **CIU: Implementation: Medium: Computational and Data Science Curriculum Exchange Faculty Community of Practice**. Local Lead: Ahlam Tannouri.
Presentations: “Systems of Linear Inequalities with Daily Nutrition”, Workshop on Computational Data Science - AI for Precalculus Courses, Morgan State University; “Simple Harmonic Motion and Circadian Rhythm” Workshop on Computational Data Science - AI for Precalculus Courses, Morgan State University.