Dwight Anderson Williams II, PhD (he/his)

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Curriculum Vitæ Summary 2024–2025
Morgan State University Directory
Homepage

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

Appointments (since PhD)

Professioriate

2023–curr **Tenure-track Assistant Professor**, Morgan State University ← HBCU Faculty.

2022–2023 **Visiting Assistant Professor**, Pomona College.

Non-professioriate

2025–2025 **Faculty Research Fellow**, Alliance for Scholarship, Collaboration, Engagement, Networking, and Development (ASCEND). Yale University.

2024–2025 **Writing Coach**, consultant to the IBM–HBCU Quantum Center via PRISSEM Academic Services, LLC.

2022–2022 **Facilitator**, Math Leaders 4 Racial Justice via the Charles A. Dana Center.

2020–2021 **Postdoc Research Associate (National Science Foundation (NSF) Grant EES–1920753)**, Iowa State University. Supervisor/PI: Michael Young.

2021–2021 **Postdoctoral Research Advisor**, Mathematical Sciences Research Institute Undergraduate Program (MSRI-UP). Supervisors: Rebecca E. Garcia & Pamela E. Harris.

Education

2016–2020 **PhD in Mathematics**, The University of Texas at Arlington. Advisor: Dimitar Grantcharov. Dissertation.

2012–2014 **MS in Pure Mathematics**, The Florida State University.

2008–2012 **BS in Mathematics**, Florida A&M University ← HBCU Alumnus.

Research/Service/Teaching Summary: 2023–Present

Research

Co-author names: |alphabetical order within vertical bars|; **pre-baccalaureate**/*pre-doctoral* by date of submission.

Articles in Mathematics

2025 **Symplectic differential reduction algebras and skew-affine generalized Weyl algebras**.
SIGMA, arXiv: 2403.15968.
|Hartwig, JT; Williams II, DA|.

2024 **Action of $\mathfrak{osp}(1|2n)$ on polynomials tensor $\mathbb{C}^{0|2n}$** (submitted).
arXiv: 2408.12324.
Williams II, DA.

2024 **Interval and ℓ-interval rational parking functions**.
Discrete Math. Theor. Comput. Sci., arXiv: 2311.14055.
|*Aguilar-Fraga, T*; Elder, J; Garcia, RE; *Hadaway, KP*; Harris, PE; *Harry, KJ*; *Hogan, IB*; *Johnson, J*; *Kretschmann, J*; *Lawson-Chavanu, K*; Martínez Mori, JC; *Monroe, CD*; *Quiñonez, D*; *Tolson III, D*; Williams II, DA|.

2023 **On parking functions and the Tower of Hanoi**.
Amer. Math. Monthly, arXiv: 2206.00541.
|**Aguillon, Y**; **Alvarenga, D**; Harris, PE; **Kotapati, S**; *Martínez Mori, JC*; *Monroe, CD*; **Saylor, Z**; **Tieu, C**; Williams II, DA|.

2023 **Ghost center and representations of the diagonal reduction algebra of $\mathfrak{osp}(1|2)$**.
J. Geom. Phys., arXiv: 2203.08068.
|Hartwig, JT; Williams II, DA|.

Articles in Education

2024 **Humanizing proof-based mathematics instruction through experiences reading rich proofs and mathematician stories** (submitted).
Contreras, N; Dawkins, PC; *Guajardo, LR*; Harris, PE; Lew, KM; Melhuish, KM; Roh, KH; Williams II, DA; Winger, A.

2024 **Diverse storylines of entering the mathematics professoriate** (submitted).
Melhuish, KM; *Guajardo, LR*; Lew, KM; Dawkins, PC; Diaz-Lopez, A; Garcia, RE; Harris, PE; Jones, E; Patel, P; Roh, KH; Walker, S; Williams II, DA; Winger, A.

2024 **Opposing dimensions in mathematicians' counter narratives written for undergraduate students**.
Proceedings (PDF) of the 26th Conference on Research on Undergraduate Mathematics.
Melhuish, KM; *Guajardo, LR*; *Contreras, N*; Dawkins, PC; Diaz-Lopez, A; Garcia, RE; Lew, KM; Harris, PE; Roh, KH; Walker, S; Williams II, DA; Winger, A. Citation note: Shanise Walker (Clark Atlanta); Pamela E. Harris (University of Wisconsin–Milwaukee).

Grant Activity

2024 **NSF 23-598: Excellence in Research: Super representation theory, quantum spaces, and algebra maps** (Pending). PI: Williams II, DA.

Service

Acronyms for professional organizations: American Mathematical Society (AMS); Mathematical Association of America (MAA); National Association of Mathematicians (NAM).

Community

Committee: Maryland Statewide Math Group. **K–12 Education**: Baltimore City Community Based Mathematics Project (Lead: Whitney Johnson; utilized the game SET).

Profession

Committees: Inclusivity Prize (MAA); Nominations Subcommittee (Chair, NAM). **Conference/Seminar Organizer**: Fresh Researchers in Algebra, Combinatorics, and Topology Active Learning Seminar (FRACTALS); AMS Spring Eastern Sectional (Howard University) Special Session. **Memberships**: AMS; MAA; NAM (Lifetime). **Referee**: Communications in Algebra.

University

Committees: Actuarial Science (Department–special); Graduate Comprehensive Exam (Department–standing); Graduate Curriculum (Department–standing). **Student-facing**: MATH Club advising (undergraduate); Mathematical writing and LaTeX daily log designer (graduate/undergraduate); POWER (Black Male Initiative) mentor (School of Computer, Mathematical, and Natural Sciences).

Teaching

Advising

Academic: Major advisor (Morgan State University). **Professional Development**: Mathematical writing and LaTeX daily log facilitator. **Undergraduate Research**: Abhinav Poudel (Morgan State University); Irmak Bukey (Pomona College, senior thesis); Andrew Shannon (Pomona College, senior thesis); Summer Undergraduate Math Research at Yale (SUMRY) 2025 Project Mentor/Leader.

Enrichment

Conferencing: MAA Introduction to Accessibility for Mathematics; Morgan Institute for Strategic Teaching. **Certification**: Quality Matters Rubric Update Seventh Edition (RU) 2023.

Instruction

Morgan State University: Graduate: MATH 505 Abstract Algebra I; MATH 506 Abstract Algebra II.
Undergraduate: MATH 413 Algebraic Structures I; MATH 431 Mathematical Theory of Statistics I; MATH 432 Mathematical Theory of Statistics II; MATH 450 Senior Seminar. **Pomona College**: Undergraduate: MATH 032 PO Calculus III; MATH 171 PO Abstract Algebra I; MATH 199 IRPO Independent Research: Intro to Manim via Combinatorics (and Algebra).