

# Dwight Anderson Williams II, PhD (he/his)

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Curriculum Vitæ Summary

[Extended Curriculum Vitæ  
homepage](#)

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

      

## Professional Appointments (post-PhD)

- 2023–curr **Assistant Professor**, Morgan State University.
- 2022–2023 **Visiting Assistant Professor**, Pomona College.
- 2022–2022 **Facilitator**, Math Leaders 4 Racial Justice.
- 2020–2021 **Postdoc Research Associate**, Iowa State University. Supervisor: Michael Young.
- 2021–2021 **Postdoctoral Research Advisor**, Mathematical Sciences Research Institute Undergraduate Program. Supervisors: Rebecca E. Garcia & Pamela E. Harris.

## Education

- 2016–2020 **PhD in Mathematics**, The University of Texas at Arlington. Advisor: Dimitar Grantcharov.
- 2012–2014 **MS in Pure Mathematics**, The Florida State University.
- 2008–2012 **BS in Mathematics**, Florida A&M University.

## Research Highlights

Co-author names: [alphabetical in mathematics](#); [pre-baccalaureate/pre-doctoral](#) by date of submission.

### In Mathematics

- 2024 **Symplectic differential reduction algebras and skew-affine generalized Weyl algebras.**  
arXiv: [2403.15968](#).  
Hartwig, JT; [Williams II, DA](#).
- 2023 **Interval and  $\ell$ -interval rational parking functions** (Submitted).  
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.**  
American Mathematical Monthly. DOI: [10.1080/00029890.2023.2206311](#).  
**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  $\mathfrak{osp}(1|2)$ .**  
Journal of Geometry and Physics. DOI: [10.1016/j.geomphys.2023.104788](#).  
Hartwig, JT; [Williams II, DA](#).
- 2022 **Diagonal reduction algebra for  $\mathfrak{osp}(1|2)$ .**  
Theoretical and Mathematical Physics. DOI: [10.1134/S0040577922020015](#) (for Russian version)  
Hartwig, JT; [Williams II, DA](#).

### In Education

- 2024 **Opposing Dimensions in Mathematicians' Counter Narratives Written for Undergraduate Students.**  
Research in Undergraduate Mathematics Education 26th Annual Conference. [Proceedings \(in press\)](#).  
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.
- 2021 **Informing Change: Stories of Graduate Students from Underrepresented Groups in Mathematics Doctoral Programs.**  
Association for the Study of Higher Education 46<sup>th</sup> General Conference. [Program book](#).  
Westine, C; Sword, S; Young, M; *Bartel, M*; [Williams II, DA](#); Harris, PE.

2021 **Studying Successful Doctoral Students in Mathematics from Underrepresented Groups.**  
Accelerating Systemic Change Network (ASCN) & Network of STEM Education Centers (NSEC) Transforming Institutions Conference 2021. [Poster webpage](#).  
Sword, S; Young, M; Westine, C; Winger, A; *Bartel, M*; Williams II, DA; *McRoberts, C*; Sisneros-Thiry, S; Gates, M; Harris, PE.

## Exposition

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2022 **People Over Math: A Co-created Principle for Successful Research Communities.**  
MAA FOCUS. [Digital edition](#).  
Garcia, RE; Harris, PE; Williams II, DA; *Martínez Mori, JC*; *Monroe, CD*; **Aguilar-Fraga, T**; **Aguillon, Y**; **Alofamoni Quiñonez, D**; **Alvarenga, D**; **Celestine, A**; **Gill, P**; **Hogan, IB**; **Johnson, J**; **Lawson-Chavanu, K**; **Liu, L**; **Ortiz, A**; **Quesada, L**; **Rivera Sánchez, CM**; **Soto, C**; **Tieu, C**; **Tolson III, D**; **van der Leeuw, J**; **Vargas, P**.

## Instructor of Record

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### 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.

### Pomona College

[Undergraduate](#): MATH PO 032 Calculus III, MATH 101 PO Introduction to Analysis, MATH 171 PO Abstract Algebra I.

### The University of Texas at Arlington

[Undergraduate](#): MATH 1302 College Algebra, MATH 1316 Mathematics for Economics and Business Analysis, MATH 1421 Preparation for Calculus, MATH 2326 Calculus III, MATH 3330 Introduction to Matrices & Linear Algebra.

## Advising

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### Undergrad

2024-curr Twymun Safford, Angeluis Sayavongsa-Vaughn. Morgan State University. MANIM.  
2023-2023 Irmak Bukey, Gisele Umutoni. Pomona College. MANIM (reduction algebras, trees, proofs).  
2022-2023 Irmak Bukey, Pomona College. Senior Thesis: Reduction Algebras: Verifying Solutions to Laplace's Equation.  
2022-2023 Andrew Shannon, Pomona College. Senior Theis: The Diffie-Hellman Problem in Lie Algebras Revisited.  
2021-2021 Aaron Ortiz, Lauren J. Quesada, Cynthia Marie Rivera Sánchez. Mathematical Sciences Research Institute Undergraduate Program. Research Report: The defective parking space.  
2021-2021 Tomás Aguilar-Fraga, Kobe Lawson-Chavanu, Dirk Tolson III. Mathematical Sciences Research Institute Undergraduate Program. Research Report:  $\ell$ -Interval parking functions.

## Sample of Service

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Committee Actuarial Science (Dept.-special), Graduate Comprehensive Exam (Dept.-standing), Graduate Curriculum (Dept.-standing), Math Affinity Group (Statewide/University).  
Membership [AMS](#), [MAA](#), [NAM](#).  
Organizer [Active learning seminars](#), [AMS Special Sessions](#).  
Referee Communications in Algebra.