

CONTACT	411 Morrill Road 495A Carver Hall Ames, IA 50011	dwright@iastate.edu mathdwright.com
FOCI	<p>Community within Mathematics Improving culture of graduate mathematics programs through practical guides, mathematicians within the African diaspora, equity in mathematics, historical mathematics and storytelling, mentoring and tutoring, creativity and freedom through mathematics</p> <p>Theory of Mathematics Lie superalgebras, Zhelobenko/reduction algebras, representation theory, Kostant's partition function, (generalized) parking functions, mathematical foundations of Adinkras, connections between superalgebras and mathematical physics</p>	
EDUCATION	<p>The University of Texas at Arlington, Arlington, TX Ph.D., Mathematics, May 2020 <i>Bases of infinite-dimensional representations of orthosymplectic Lie superalgebras</i> Advisor: Dimitar Grantcharov</p> <p>The Florida State University, Tallahassee, FL M.S., Pure Mathematics, May 2014</p> <p>Florida A&M University, Tallahassee, FL B.S., Mathematics, April 2012</p>	
EMPLOYMENT	<p>Postdoc Research Associate NSF ECR-EHR Core Research Grant Studying Successful Doctoral Students in Mathematics from Underrepresented Groups Iowa State University, Ames, IA Supervisor: Michael Young Research Mentor: Jonas T. Hartwig</p> <p>Postdoctoral Research Advisor Mathematical Sciences Research Institute Undergraduate Program (MSRI-UP) (virtual) Mathematical Sciences Research Institute, Berkeley, CA Research Director: Pamela E. Harris Lead Organizer: Rebecca Garcia</p>	<p>2020 – 2022</p> <p>2021</p>

[†]Students, please record your work, your service, your projects, etc. Keep the record current as best you can. Store your vita on your website. Email me if you would like advice on how to begin.

DISTINCTIONS	<i>The University of Texas at Arlington</i>	
	Graduate Assistance in Areas of National Need (GAANN) Fellow	2017 – 2020
	Outstanding GAANN Student, Department of Mathematics	2020
	Peer Mentor Award, Department of Mathematics	2018
	<i>American Mathematical Society</i>	
	Joint Mathematics Meetings Travel Grant	2019
	International Congress of Mathematicians Travel Grant	2018

COMMUNICATION

★INVITED

Research Articles in Mathematics

1. (Submitted; Joint with J. Hartwig) Diagonal reduction algebra for $\mathfrak{osp}(1|2)$.
<https://arxiv.org/abs/2106.04380>
2. (In preparation; Joint with J. Hartwig) Differential Reduction Algebra of $\mathfrak{osp}(1|2n)$.
3. (In preparation; Joint with D. Grantcharov) Bases of infinite-dimensional tensor product representations of $\mathfrak{osp}(1|2n)$.

Writings on the Discipline

1. (Submitted) People Over Math: A Co-created Principle for Successful Research Communities.
Faculty authors: Rebecca Garcia, Pamela E. Harris, and Dwight Anderson Williams II;
Graduate student authors: J. Carlos Martínez Mori and Casandra Monroe;
Undergraduate student authors: Tomás Aguilar-Fraga, Yasmin Aguillon, Daniel Alofameni Quiñonez, Dylan Alvarenga, Aalliyah Celestine, Parneet Gill, Imhotep Hogan, Jakeyl Johnson, Kobe Lawson-Chavanu, Lina Liu, Aaron Ortiz, Lauren Quesada, Cynthia Marie Rivera Sánchez, Christopher Soto, Camelle Tieu, Dirk Tolson III, Jacob van der Leeuw, and Pamela Vargas. Submitted.
2. ★ The International Congress of Mathematicians: A Math Conference for Everybody.[‡] (2018, Winter). *NAM Newsletter*.
Retrieved from [http://www.nam-math.org/include/pages/files/newsletters/2018 Winter.pdf](http://www.nam-math.org/include/pages/files/newsletters/2018%20Winter.pdf)

Video

1. ★ CPALMS Perspectives Videos (2015) *Carbon foam and geometry*.
Available at: <https://www.cpalms.org/Public/PreviewResource/PerspectivesVideo/Preview/128676>

[‡]I wish ICM were for everybody, but there are major safety concerns for marginalized groups and financial limitations for many. My hope is that ICM can be for everybody—this article did not portray the hope or the issues to their fullest.

Presentations on Community within Mathematics

2021

1. ★ West Virginia University Feb
 Student Chapter of the Association of Women in Mathematics
 “Generations of Black Mathematicians” (virtual)

2020

2. ★ American Mathematical Society Oct – Dec
*Advocating for Students of Color:
 There’s More You Can Do* (virtual)
 Pamela E. Harris, Vanessa Rivera Quiñones,
 Aris Winger, Michael Young, & Dwight Anderson Williams II
3. ★ Institute for Mathematical and Statistical Innovation Nov
Student-led Initiatives panelist
 paraDIGMS Fall Conference (virtual)
4. ★ State of Iowa Jun – Nov
 Governor’s STEM Advisory Council
Fostering Equity in the STEM Classroom (virtual)
 Pamela E. Harris, Aris Winger, & Dwight Anderson Williams II
5. ★ Math SWAGGER Colloquium Oct
 “Defining your function” (virtual)
6. ★ Pomona College Mar
Black in STEM keynote
7. ★ Florida A&M University Feb
 Kemetic Mathematical Society
Research and Graduate Programs (virtual)

2019

8. The University of Texas at Arlington Oct
 Discussions in Algebra (DinA)
 “Incompleteness theorem:
 a graduating graduate student’s hard-knocks lessons”
9. The University of Texas at Arlington Mar
 Graduate Chapter of The American Mathematical Society
 “A Noether one:
 the lives of Malone-Mayes, Mirzakhani, and Noether”
10. National Association of Mathematicians Sep
 Undergraduate MATHFest XXIX
 Southern University of New Orleans
The Graduate School Experience moderator

2018

11. ★ National Association of Mathematicians
Undergraduate MATHFest XXVIII
Spelman College
Applying to Graduate School panelist Sep
12. The University of Texas at Arlington
Department of Mathematics
GAANN Day panelist Apr

2017

13. ★ *Facilitated Graduate Applications Process (F-GAP)* panelist
Gulf States Math Alliance Conference,
The University of Texas at Arlington Feb

2016

14. ★ The University of Texas at Arlington
Department of Mathematics
GAANN Day panelist Apr

Presentations on Theory of Mathematics

2021

1. ★ “Diagonal reduction algebra of $\mathfrak{osp}(1|2)$ ”
Categorical and Combinatorial Methods in Representation Theory,
and Related Topics
Spring Western Sectional Meeting, San Francisco State University (virtual) May
2. “Reduction algebras and $\mathfrak{osp}(1|2)$ I-II”
Algebra and Geometry Seminar, Iowa State University (virtual) Apr
3. ★ “Relations, parity, and super representation theory”
The Joint Mathematics Meetings 2021, Washington, D.C. (virtual) Jan

2020

4. “From Lie algebras to Lie superalgebras I-II”
Algebra and Geometry Seminar, Iowa State University (virtual) Oct
5. “Bases of infinite-dimensional representations
of orthosymplectic Lie superalgebras”
Dissertation Defense, The University of Texas at Arlington Apr
6. ★ “It looks like calculus: Lie superalgebras acting on polynomials
in commuting and anti-commuting variables”
Colloquium, California State Polytechnic University, Pomona Mar
7. ★ “Finding bases of new infinite dimensional representations of
 $\mathfrak{osp}(1|2n)$ ”
Algebra/Number Theory/Combinatorics Seminar, Claremont Colleges Mar

8. ★ “Basis of an infinite-dimensional tensor product representation of $\mathfrak{osp}(1|2n)$ ” Jan
The Joint Mathematics Meetings 2020, Denver, Colorado
- 2019
9. ★ “Infinite-dimensional tensor product representations of $\mathfrak{osp}(1|2n)$ and $\mathfrak{gl}(2n)$ ” Dec
Algebra and Geometry Seminar, Iowa State University
10. ★ “Bases of infinite-dimensional tensor product representations of $\mathfrak{osp}(1|2n)$ ” Nov
Representation Theory Seminar, Baylor University
11. ★ “Basis of an infinite-dimensional tensor product representation of $\mathfrak{osp}(1|2n)$ ” Oct
Algebra Seminar, University of North Texas
12. “Super Black Magic” Oct
Graduate Algebra Symposium, Texas A&M University
13. ★ “Keeping up with the signs: examples of Lie superalgebras and their representations” Mar
Colloquium, Sam Houston State University
14. “Infinite-dimensional representations of $\mathfrak{osp}(1|2n)$ ” Feb
Southwest Local Algebra Meeting, The University of Texas at El Paso
- 2018
15. “Infinite-dimensional representations of $\mathfrak{osp}(1|2n)$ ” Nov
Blackwell-Tapia Conference, ICERM
16. “Tensor product representations of $\mathfrak{osp}(1|2n)$ ”, Nov
Discussions in Algebra (DinA), The University of Texas at Arlington
17. “Angles of Andy... simple roots” Apr
Discussions in Algebra (DinA), The University of Texas at Arlington
18. “Gelfand-Tsetlin subalgebras” Mar
Discussions in Algebra (DinA), The University of Texas at Arlington
- 2017
19. “Supermathematics...” Oct
UNT UTA OU Algebra Symposium, University of Oklahoma
20. “Superalgebras” Oct
Discussions in Algebra (DinA), The University of Texas at Arlington
21. “Magmas, loops, and other not-quite groups” Apr
UNT UTA OU Algebra Symposium, The University of Texas at Arlington
22. “Solutions to Hungerford exercises on Hom and Duality” Feb
Discussions in Algebra (DinA), The University of Texas at Arlington

2016

23. “Survey of algebraic objects” Oct
Discussions in Algebra (DinA), The University of Texas at Arlington

2013

24. “A complex investigation of Pythagorean triples” Nov
Complex Analysis Seminar, The Florida State University

2011

25. “Cyclotomy and representation Theory” Jul
Iowa Summer Research Symposium, University of Iowa

ACTIVITIES

Conferences, Seminars, Symposiums

Online Undergraduate Resource Fair for the Advancement in Academia of
Marginalized Mathematicians (OURFA²M²)
Organized by the amazing undergraduates
Carbonero, Gelb, Miniño, Sun, & Trent (December 2020) (virtual)

paraDIGMS Fall Conference

Institute for Mathematical and Statistical Innovation (November 2020)
(virtual)

Monoidal Categories in Representation Theory

AMS Fall Western Sectional Meeting
University of Utah (October 2020) (virtual)

2020 SACNAS – The National Diversity in STEM Virtual Conference

Society for Advancement of Chicanos/Hispanics and Native Americans in
Science (October 2020) (virtual)

NAM Undergraduate MATHFest XXX

(September 2020) (virtual)

Quantum groups, Representation theory, Superalgebras, and Tensor categories

Fields Institute (August 2020) (virtual)

Geometric Representation Theory

Perimeter Institute for Theoretical Physics (June 2020) (virtual)
Twinned conference: Max Planck Institute

Joint Mathematics Meetings 2020

AMS National Meeting (January 2020)
Denver, Colorado

Graduate Algebra Symposium XIV

Texas A&M University (October 2019)

NAM Undergraduate MATHFest XXIX
Southern University of New Orleans (September 2019)

Southwest Local Algebra Meeting
The University of Texas at El Paso (February 2019)

Blackwell-Tapia Conference 2018
ICERM (November 2018)

UNT UTA OU Algebra Symposium XII
The University of Texas at Arlington (October 2018)

NAM Undergraduate MATHFest XXVIII
Spelman College (September 2018) (virtual)

Lie and Jordan Algebras, their Representations and Applications VIII
Satellite Conference ICM
Cusco, Peru (August 2018)

International Congress of Mathematicians
Rio de Janeiro, Brazil (August 2018)

Texas-Oklahoma Representations and Automorphic Forms (TORA) IX
University of Oklahoma (April 2018)

UNT UTA OU Algebra Symposium X
University of Oklahoma (October 2017)

Lie Algebras, Superalgebras, and Applications
AMS Fall Central Sectional Meeting
University of North Texas (September 2017)

UNT UTA OU Algebra Symposium IX
The University of Texas at Arlington (April 2017)

Algebra Seminar
University of North Texas (2017 - 2019)

UNT UTA OU Algebra Symposium VIII
University of North Texas (November 2016)

Discussions in Algebra (DinA)
The University of Texas at Arlington (2016 - 2020)

Schools, Trainings, Workshops

Broadening Participation: 2020 MPS Workshop for New Investigators
National Science Foundation (November 2020) (virtual)

Southeastern Lie Theory Workshop XI
“Geometric and Categorical Representation Theory”
Louisiana State University (May 2019)

Representation Theory, Combinatorics, and Geometry
University of Virginia (October 2018)

Common Misconceptions in Undergraduate Mathematics Classrooms
Center for the Integration of Research, Teaching, and Learning
The University of Texas at Arlington (Fall 2018)

Mathematics Education: Teaching Tips for Graduate Students
Center for the Integration of Research, Teaching, and Learning
The University of Texas at Arlington (Fall 2018)

2018 RTG Summer School
“Lie Theory”
University of Georgia (June 2018)

“Introduction to Git and GitHub”
The University of Texas at Arlington (April 2018)

“ABCs of DMPs: Introduction to creating effective data management plans”
The University of Texas at Arlington (March 2018)

“Introduction to Python”
The University of Texas at Arlington (March 2018)

“Intro to Pivot - Funding”
The University of Texas at Arlington (February 2018)

“Publishing Your First Article”
The University of Texas at Arlington (February 2018)

“Shaping Your Academic Digital Identity”
The University of Texas at Arlington (February 2018)

TEACHING

Instructor of Record

The University of Texas at Arlington
Summer 2017 – Fall 2017 & Fall 2018 – Spring 2020

Courses: Business Calculus, Calculus III (2 sections), College Algebra (Pilot), Linear Algebra (2 sections), Preparation for Calculus

Florida A&M University
Fall 2015 – Spring 2016

Courses: Business Calculus (4 sections), Intermediate Algebra (2 sections)

Seminar Designer

Iowa State University
Fall 2020 – Spring 2021

Seminars: Graduate Algebra (*The Reunion*), Post-baccalaureate (*PB Party*)

Guest Lecturer

The University of Texas at Arlington

Courses: Abstract Algebra (Graduate), Contemporary Mathematics, Lie Algebras (Graduate), Number Theory

Teaching Assistant

The University of Texas at Arlington

Fall 2016 – Spring 2017 & Spring 2018

Course: Preparation for Calculus (6 sections)

The Florida State University

Fall 2012 – Spring 2014

Courses: Analytic Trigonometry (11 sections), Calculus for Business (8 sections), College Algebra (11 sections), Precalculus Algebra (5 sections)

Grader

The University of Texas at Arlington

Spring 2018 & Spring 2019

Course: Linear Algebra

SERVICE

Organizer

Black in Math Week on Twitter

- You should know the other co-organizers and their work:
Anna Gifty, Marissa Loving, Omayra Ortega, Candice Price, Noelle Sawyer, Angela Tabiri, Michole Washington

Hidden NORMS (Webinar): Navigating Obstructive Rules in the Mathematical Sciences

- You should know the other co-organizers and their work:
Kimberley Haddaway, Pamela E. Harris, Daniel E. Qin, Vanessa Rivera Quiñones

American Mathematical Society

- Special Session on Superalgebras, Quantum Groups, and Related Topics
- Founding president of UTA Graduate Chapter and website creator
- Graduate Student Seminar

Visitors/Speakers (institution at time of visit)

- Mayowa Awe (Lockheed Martin)
- Edray Goins (Purdue University)
- Mark Jackson (Raytheon)
- Craig J. Sutton (Dartmouth College)
- Talitha Washington (Howard University & National Science Foundation)

Discussions in Algebra (DinA)

- Scheduled speakers for DinA at The University of Texas at Arlington

Grad2Grad

- Created and coordinated a peer-to-peer studying collaborative for graduate Linear Algebra and Analysis

K-12 Mentor*Mid-Cities Math Circle (MC)²*

- Promoter of problem solving and mathematical fun amongst youth

R. Frank Nims Middle School (Tallahassee, FL)

- Created STEM lesson plans and taught 15 eighth graders on Saturday mornings

Undergraduate Advisor and Mentor*National Association of Mathematicians (NAM)*

- NAM Undergraduate MATHFest XXX oral presentation judge

Florida-Georgia Louis Stokes Alliance for Minority Participation (LSAMP)

- Adapted program as a recognized student organization (RSO) at The Florida State University
- Mentored 30 undergraduates from underrepresented backgrounds in scientific fields

Committee Member*Social Action Committee*

- Responding to community issues and campus climate via the Black Faculty and Staff Association of Iowa State

Mathematics Faculty Search Committee

- Represented students in evaluating candidates for faculty positions in the Department of Mathematics at Florida A&M University

Local Volunteer*Dallas-Fort Worth Metroplex*

- UT Arlington Calculus Bowl set-up crew member and pizza server
- Forth Worth Regional Science Fair safety inspector

MEMBERSHIPS

American Mathematical Society

Association for Women in Mathematics

Benjamin Banneker Association, Inc.

Black Faculty and Staff Association (Iowa State University)

National Association of Mathematicians

Society for Advancement of Chicanos/Hispanics and Native Americans in Science

SKILLS

Computer software/languages

Active Projects: L^AT_EX

Past Projects: Access, APL, C, Excel, Maple, MATLAB