
CONTACT	<p>The University of Texas at Arlington Department of Mathematics 411 South Nedderman Drive Box 19408 Arlington, TX 76019-0408</p>	<p>Office: 817.272.3261 dwight.willams@uta.edu mathdwight.com</p>
RESEARCH	Lie (super)algebras, supermathematics, representation theory, mathematicians within the African diaspora	
EDUCATION	<p>The University of Texas at Arlington, Arlington, TX</p> <p>Ph.D., <i>Mathematics</i>, <i>Expected</i>: May 2020</p> <p>Thesis Topic: Infinite-dimensional tensor product representations of $\mathfrak{osp}(1 2n)$</p> <p>Advisor: <i>Dimitar Grantcharov</i></p> <p>The Florida State University, Tallahassee, FL</p> <p>M.S., <i>Pure Mathematics</i>, May 2014</p> <p>Florida A&M University, Tallahassee, FL</p> <p>B.S., <i>Mathematics</i>, April 2012</p>	
DISTINCTIONS	<p>Joint Mathematics Meetings Travel Grant American Mathematical Society</p>	2019
	<p>International Congress of Mathematicians Travel Grant American Mathematical Society</p>	2018
	<p>Peer Mentor Award The University of Texas at Arlington Department of Mathematics</p>	2018
	<p>Graduate Assistance in Areas of National Need (GAANN) Fellow The University of Texas at Arlington</p>	2017 – present
MEDIA	<p>Research publications</p> <ol style="list-style-type: none"> (In preparation; Joint with D. Grantcharov) Bases of infinite-dimensional tensor product representations of $\mathfrak{osp}(1 2n)$. <p>News and education</p> <ol style="list-style-type: none"> The International Congress of Mathematicians: A Math Conference for Everybody. (2018, Winter). <i>NAM Newsletter</i>. Retrieved from http://www.nam-math.org/include/pages/files/newsletters/2018 Winter.pdf CPALMS Perspectives Videos (2015) <i>Carbon foam and geometry</i>. Available at: https://www.cpalms.org/Public/PreviewResourcePerspectivesVideo/Preview/128676 	

TALKS

2020

1. “Basis of an infinite-dimensional tensor product representation of $\mathfrak{osp}(1|2n)$ ”,
The Joint Mathematics Meetings 2020, Denver, Colorado Jan

2019

2. “Infinite-dimensional tensor product representations of $\mathfrak{osp}(1|2n)$ and $\mathfrak{gl}(2n)$ ”,
Algebra and Geometry Seminar, Iowa State University Dec
3. “Bases of infinite-dimensional tensor product representations of $\mathfrak{osp}(1|2n)$ ”,
Representation Theory Seminar, Baylor University Nov
4. “*Incompleteness theorem*: a graduating graduate student’s hard-knocks lessons”,
Discussions in Algebra (DinA), The University of Texas at Arlington Oct
5. “Basis of an infinite-dimensional tensor product representation of $\mathfrak{osp}(1|2n)$ ”,
Algebra Seminar, University of North Texas Oct
6. “Super Black Magic”,
Graduate Algebra Symposium, Texas A&M University Oct
7. “Infinite-dimensional tensor product representations of orthosymplectic Lie superalgebras”,
Comprehensive Exam, The University of Texas at Arlington Aug
8. “*Keeping up with the signs*:
examples of Lie superalgebras and their representations”,
Colloquium, Sam Houston State University Mar
9. “...a Noether one...: the lives of Malone-Mayes, Mirzakhani, & Noether”,
AMS UTA Graduate Seminar, The University of Texas at Arlington Mar
10. “Infinite-dimensional representations of $\mathfrak{osp}(1|2n)$ ”,
Southwest Local Algebra Meeting, The University of Texas at El Paso Feb

2018

11. “Infinite-dimensional representations of $\mathfrak{osp}(1|2n)$ ”,
Blackwell-Tapia Conference, ICERM Nov
12. “Tensor product representations of $\mathfrak{osp}(1|2n)$ ”,
Discussions in Algebra (DinA), The University of Texas at Arlington Nov
13. “Angles of Andy... simple roots”,
Discussions in Algebra (DinA), The University of Texas at Arlington Apr
14. “Gelfand-Tsetlin subalgebras”,
Discussions in Algebra (DinA), The University of Texas at Arlington Mar

2017

15. “Supermathematics...”,
UNT UTA OU Algebra Symposium, University of Oklahoma Oct

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| 16. “Superalgebras”
Discussions in Algebra (DinA), The University of Texas at Arlington | Oct |
| 17. “Magmas, loops, and other not-quite groups”,
UNT UTA OU Algebra Symposium, The University of Texas at Arlington | Apr |
| 18. “Solutions to Hungerford exercises on <i>Hom and Duality</i> ”
Discussions in Algebra (DinA), The University of Texas at Arlington | Feb |
| 2016 | |
| 19. “Survey of algebraic objects”
Discussions in Algebra (DinA), The University of Texas at Arlington | Oct |
| 2013 | |
| 20. “A complex investigation of Pythagorean triples”,
Complex Analysis Seminar, The Florida State University | Nov |
| 2011 | |
| 21. “Cyclotomy and representation Theory”,
Iowa Summer Research Symposium, University of Iowa | Jul |

ACTIVITIES

Conferences, Seminars, Symposiums

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)

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 - present)

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

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

Schools, Trainings, Workshops

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

Summer 2017 – Fall 2017 & Fall 2018 – Fall 2019

Business Calculus - The University of Texas at Arlington
Calculus III - The University of Texas at Arlington
College Algebra (Pilot) - The University of Texas at Arlington

Linear Algebra (2 sections) - The University of Texas at Arlington
Preparation for Calculus - The University of Texas at Arlington

Fall 2015 – Spring 2016

Business Calculus (4 sections) - Florida A&M University
Intermediate Algebra (2 sections) - Florida A&M University

Guest Lecturer

Abstract Algebra (Graduate) - The University of Texas at Arlington
Lie Algebras (Graduate) - The University of Texas at Arlington
Contemporary Mathematics - The University of Texas at Arlington
Number Theory - The University of Texas at Arlington

Teaching Assistant

Fall 2016 – Spring 2017 & Spring 2018

Preparation for Calculus (6 sections) - The University of Texas at Arlington

Fall 2012 – Spring 2014

Analytic Trigonometry (11 sections) - The Florida State University
Calculus for Business (8 sections) - The Florida State University
College Algebra (11 sections) - The Florida State University
Precalculus Algebra (5 sections) - The Florida State University

Grader

Spring 2018 & Spring 2019

Linear Algebra - The University of Texas at Arlington

SERVICE

Professional

Organizer

American Mathematical Society UTA Graduate Chapter

- Founding president and website creator
- Graduate Student Seminar

Visitors/Speakers

- Mayowa Awe, Lockheed Martin
- Edray Goins, Purdue University (Currently: Pomona College)
- Mark Jackson, Raytheon
- Craig J. Sutton, Dartmouth College

Discussions in Algebra (DinA)

- Scheduler of talks for DinA at The University of Texas at Arlington

Grad2Grad

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

Panelist/Moderator

National Association of Mathematicians

- NAM Undergraduate MATHFest XXIX, Southern University of New Orleans
- NAM Undergraduate MATHFest XXVIII, Spelman College

The University of Texas at Arlington Department of Mathematics

- GAANN Day 2018
- Gulf States Math Alliance Conference
- GAANN Day 2016

National Alliance for Doctoral Studies in the Mathematical Sciences

- Fifth Annual Mathematical Field of Dreams Conference, Arizona State University

Committee Member

Mathematics Faculty Search Committee

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

Community

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

Local Volunteer

Dallas-Fort Worth Metroplex

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

Advisor and Undergraduate Mentor

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

MEMBERSHIPS

American Mathematical Society (National and Graduate Student Chapters)

Association for Women in Mathematics

Benjamin Banneker Association, Inc.

College of Science Black Graduate Student Association

National Association of Mathematicians

SKILLS

Computer software/languages

Past Projects: MATLAB, Maple, L^AT_EX, Excel, Access, APL, C

REFERENCES

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