

CONTACT	<div>The University of Texas at Arlington Department of Mathematics Box 19408 1225 West Mitchell Arlington, TX 76019-0408</div>	<div>Office: 817.272.3261 dwight.willams@uta.edu</div>
RESEARCH	Lie (Super)algebras, Representation Theory, Gelfand-Tsetlin Theory	
EDUCATION	<div><b>The University of Texas at Arlington</b>, Arlington, TX</div> <div>Ph.D., <i>Mathematics</i>, <i>Expected</i>: May 2020</div> <div>Advisor: Dimitar Grantcharov, Ph.D</div> <div><b>The Florida State University</b>, Tallahassee, FL</div> <div>M.S., <i>Pure Mathematics</i>, May 2014</div> <div><b>Florida A&amp;M University</b>, Tallahassee, FL</div> <div>B.S., <i>Mathematics</i>, April 2012</div>	
DISTINCTIONS	<div>International Congress of Mathematicians Travel Grant American Mathematical Society GAANN Fellow The University of Texas at Arlington Presidential Scholar Florida A&amp;M University Undergraduate Research Award The South East Alliance for Graduate Education &amp; the Professoriate</div>	<div>2018   2017 – present  2008 – 2011  2009 – 2010</div>
TALKS	<div>2018</div> <div><div>1. “Gelfand-Tsetlin Subalgebras”, Discussions in Algebra (DinA), The University of Texas at Arlington</div><div>Mar</div></div> <div>2017</div> <div><div>2. “Supermathematics...”, UNT UTA OU Algebra Symposium, University of Oklahoma</div><div>Oct</div></div> <div>3. “Superalgebras” Discussions in Algebra (DinA), The University of Texas at Arlington</div> <div>Oct</div> <div>4. “Magmas, Loops, and Other Not-quite Groups”, UNT UTA OU Algebra Symposium, The University of Texas at Arlington</div> <div>Apr</div> <div>5. “Solutions to Hungerford Exercises on Hom &amp; Duality” Discussions in Algebra (DinA), The University of Texas at Arlington</div> <div>Feb</div> <div>2016</div> <div><div>6. “Survey of Algebraic Objects” Discussions in Algebra (DinA), The University of Texas at Arlington</div><div>Oct</div></div>	

2013

7. “A Complex Investigation of Pythagorean Triples”, Nov  
Complex Analysis Seminar, The Florida State University

2011

8. “Cyclotomy and Representation Theory”, Jul  
Iowa Summer Research Symposium, University of Iowa

## PUBLICATIONS

D. Williams, *Utilizing the Euclidean Norm for the Systematic Modeling of Carbon Foam with Spherical Bubbles*, Florida A&M University Honors Program Undergraduate Journal. **14** (2011), no. 1.

## ACTIVITIES

### Conferences, Symposia, Talks

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  
University of Oklahoma (April 2018)

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

Algebra Seminar  
University of North Texas (2017 - present)

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

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

### Schools, Trainings, Workshops

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

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

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

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

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

## MEMBERSHIPS

American Mathematical Society

Association for Women in Mathematics (Student Chapter)

## TEACHING

### **Instructor**

Summer 2017 - Fall 2017

College Algebra (Pilot) - 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**

Spring 2018

Graduate Abstract Algebra - The University of Texas at Arlington

Fall 2017

Number Theory - The University of Texas at Arlington

Contemporary Mathematics - The University of Texas at Arlington

### **Teaching Assistant**

Spring 2018

Preparation for Calculus (2 Sections) - The University of Texas at Arlington

Fall 2016 – Spring 2017

Preparation for Calculus (4 sections) - The University of Texas at Arlington

Fall 2012 – Spring 2014

Analytic Trigonometry (11 sections) - The Florida State University

College Algebra (11 sections) - The Florida State University

Calculus for Business (8 sections) - The Florida State University

Precalculus Algebra (5 sections) - The Florida State University

### **Grader**

Spring 2018

Linear Algebra - The University of Texas at Arlington

## SERVICE

**Professional****Organizer**

*Discussions in Algebra (DinA)* 2017 – present

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

*Grad2Grad* 2017

- Coordinator of a peer-to-peer studying collaborative for Linear Algebra and Analysis courses

**Panelist**

*National Alliance for Doctoral Studies in the Mathematical Sciences*

- “FGAP Program”, Gulf States Math Alliance Conference, The University of Texas at Arlington. (February 2017)
- “Fields of Summer Programs”, Fifth Annual Mathematical Field of Dreams Conference, Arizona State University. (October 2011)

**Committee Member**

*Mathematics Faculty Search Committee* 2012

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

**Community**

**K-12 Mentor** 2016 – present

*Mid-Cities Math Circle (MC)<sup>2</sup>*

- Promoter of problem solving and mathematical fun amongst youth

*R. Frank Nims Middle School* 2011-2012

- Mathematics and Science Tutorial Enhancement Program
- Created STEM lesson plans and taught 15 eighth graders on Saturday mornings

**Local Volunteer**

*Dallas-Fort Worth Metroplex* 2016 – present

- UT Arlington Calculus Bowl set-up crew member and pizza server
- Fort Worth Regional Science Fair safety inspector (2017)

**Advisor and Undergraduate Mentor**

*Florida-Georgia Louis Stokes Alliance for Minority Participation* 2012 – 2016

- Guided formation of the program as a recognized student organization (RSO) at The Florida State University
- Mentored 30 undergraduates from underrepresented backgrounds in scientific fields
- Developed and led monthly meetings to improve the likelihood of students advancing to graduate school

## SKILLS

Computer software/languages

- Projects/Research: MATLAB, Maple, L<sup>A</sup>T<sub>E</sub>X(Beamer), Excel, Access, Word, APL, C
- Self-teaching: R, Python

REFERENCES

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