

Lewis R. Williams

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EDUCATION

Fayetteville State University

Fayetteville, NC

Bachelor of Science in Mathematics

Expected May 2013

Cumulative GPA: 3.4

Recipient: Ronald E. McNair Scholars
Program (Research)

Louis Stokes Alliance for Minority Participation (LSAMP) (Research)

TEACHING EXPERIENCE

CPSE Math Tutor

August 2010-present

Fayetteville State University

Center for Promoting STEM Education and Research

- Provide tutorial sessions for Applied Calculus, Calculus with Analytic Geometry, Calculus with Analytic Geometry III, and Linear Programming
- Meet with students on a one-to-one or small group basis
- Kept regular and accurate schedule of tutoring sessions
- Assisted co-workers if help was needed

RESEARCH EXPERIENCE

“Poincare-Birchhoff-Witt (PBW) basis and Monomial basis for $U_{r,s,T}^+(sl_3)$ “

Summer 2011

Worked with Dr. Xin Tang on finding good bases such as PWB bases and monomial bases for certain algebras monomial bases for certain algebras, which are abstractly defined via generators and relations.

“On the Tzitzeica Curve Equation”

Fall 2011 - present

Worked with Dr. Nicoleta Bila on finding exact solutions for a nonlinear third-order differential equation called the Tzitzeica curve equation.

“Improving Seizure Forewarning using Graph Dissimilarity and Layout Analysis”

Worked with Dr. Lee Hively and Dr. J. Todd McDonald on using various graph layout algorithms and node difference and link difference to try and improve the epileptic seizure forewarning algorithm.

Summer 2012

HONORS/AWARDS

Dean's List

Fall 2008, Spring 2009,
Spring 2010, Spring 2011

Chancellor's List

Fall 2009

First Place Prize for Mathematics
at The 2012 Spring Symposium and
Research Conference in STEM,
Chicago, IL

February 2012

Lewis R. Williams

AFFILIATIONS

McNair Scholars Program

May 2011-present

Bronco Toastmasters

April 2011-present

FSU Department of Mathematics

CIVIC ENGAGEMENT

Fayetteville Art's Council

June 2010-present

Fayetteville Symphony Orchestra

March 2010

Winter Jam Concert

January 2009,
February 2010,
March 2011

RESEARCH PRESENTATIONS

[1] "Poincare-Birkhoff-Witt (PBW) basis and
Monomial basis for $U_{r,s,T}^+(sl_3)$ "
Fayetteville State's Second Annual
Research Symposium

July 2011

[2] "Poincare-Birkhoff-Witt (PBW) basis and
Monomial basis for $U_{r,s,T}^+(sl_3)$ "
State of North Carolina Undergraduate
Research Symposium (SNCURS)
East Carolina University

November 2011

[3] "On the Tzitzeica Curve Equation"
2012 Spring Symposium and Student
Research Conference in STEM,
Chicago, IL

February 2012

[4] "On the Tzitzeica Curve Equation"
2012 Emerging Researchers National
Conference in STEM,
Atlanta, Georgia

March 2012

[5] "Poincare-Birkhoff-Witt (PBW) basis and
Monomial basis for $U_{r,s,T}^+(sl_3)$ "
2012 PRISM Conference

	San Juan, Puerto Rico	March 2012
[6]	“On the Tzitzeica Curve Equation” STEM SEMINAR Fayetteville State University	March 2012
[7]	“On the Tzitzeica Curve Equation” Student Research Conference Fayetteville State University	April 2012
[8]	“Improving Seizure Forewarning using Graph Dissimilarity and Layout Analysis” Oak Ridge National Laboratory	August 2012

TRAVEL GRANT

	Organizing Committee – The 2012 Emerging Researchers National (ERN) Conference in STEM, Atlanta, Georgia	February 2012
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REFERENCES

Dr. Xin Tang

Assistant Professor
Department of Mathematics and
Computer Science
Fayetteville State University
1200 Murchison Road
Fayetteville, NC 28301
(910) 672-2206
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Dr. Nicoleta Bila

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