

**RESEARCH
INTERESTS**

Knot Theory and 4-Manifolds

EDUCATION

Ph.D. Mathematics

Rice University, Houston, TX.

Fall 2012 - Present

Advisor: Shelly Harvey

- NSF Graduate Research Fellowship (2014 - 2017)
- Bob E. and Lore Merten Watt Fellowship (2012)
- National Physical Sciences Consortium Fellowship (2012) (declined for personal reasons)

B.S. Mathematical Sciences

University of Texas at Dallas, Richardson, TX.

Fall 2008 - May 2012

Concentration: Pure Math

Minor: Physics, Performing Arts

- Summa Cum Laude
- Dean's List, Phi Kappa Phi, Collegium V Honors, and Major Honors with Distinction
- Texas Mathematics 8-12 Teaching Certification

**TALKS
AND
POSTER
SESSIONS**

From Morse Homology to Floer Theory

October 15, 2014

RTG Topology Seminar

Rice University, Houston, TX

Contact Structures and Foliations, Taut Foliations and Symplectic Fillings Fall 2014

Student-led Seminar

Rice University, Houston, TX

- Participated in a semester long seminar and gave talks based on John Etnyre's notes on contact geometry and Lagrangian and transverse knots.

An Introduction to Differential Geometry

Spring 2014

Student-led Seminar

Rice University, Houston, TX

- Helped organize a semester long seminar and gave talks based on Michael Spivak's "A Comprehensive Introduction to Differential Geometry".

An Introduction to Khovanov Homology

February 7, 2014

RTG Topology Seminar

Rice University, Houston, TX

Representations of Semisimple Lie Algebras

November 14, 2013

Current Mathematics Seminar

Rice University, Houston, TX

<i>Fibered Links from Closed Braids</i> RTG Topology Seminar Rice University, Houston, TX	October 11, 2013
<i>An Introduction to Quandles</i> Current Mathematics Seminar Rice University, Houston, TX	March 14, 2013
<i>Algebra Structure on the Handlebody of Genus Two</i> Collegium V Poster Presentation for Graduating Seniors University of Texas at Dallas, Richardson, TX	May 7, 2012
<i>Covering Graphs, Voltage Assignments, and Hamiltonicity</i> Joint Mathematics Meetings Hynes Convention Center, Boston, MA	January 5, 2012
<i>Covering Graphs, Voltage Assignments, and Hamiltonicity</i> Discrete Mathematics Days St. Michael's College, Colchester, VT	July 16, 2011

CONFERENCES ATTENDED

<i>Knot Theory and Its Applications to Physics and Quantum Computing</i> 2015 The University of Texas at Dallas, Richardson, TX	January 6-9,
<i>Texas Geometry and Topology Conference</i> The University of Texas at Austin, Austin, TX	November 14-16, 2014
<i>Combinatorial Link Homology Theories, Braids, and Contact Geometry</i> 2014 ICERM at Brown University, Providence, RI	August 4-8,
<i>Topology Students Workshop</i> Georgia Institute of Technology, Atlanta, GA	June 9-13, 2014
<i>Graduate Student Topology and Geometry Conference</i> The University of Texas at Austin, Austin, TX	April 5-6, 2014
<i>Rice Dynamics Meetings (helped organize)</i> Rice University, Houston, TX	May 3-5, 2013
<i>(Hempelfest) 3-manifolds: Heegaard Splittings, the Curve Complex, and Hyperbolic Geometry</i> Rice University, Houston, TX	April 19-21, 2013
<i>Texas Geometry and Topology Conference</i> Rice University, Houston, TX	November 9-11, 2012
<i>Joint Mathematics Meetings</i> Hynes Convention Center, Boston, MA	January 5, 2012
<i>Discrete Mathematics Days</i> St. Michael's College, Colchester, VT	July 16, 2011

Knots in Washington XXXI: Categorification, Quandles, Quantum knots and Quantum computing
 December 3-5, 2010
 George Washington University, Washington D.C.

Knots in Washington XXX: Categorification, Quandles, Quantum knots and Quantum computing
 May 19-21, 2010
 George Washington University, Washington D.C.

RESEARCH AND

INDEPENDENT STUDY

Algebra Structure on the Handlebody of Genus Two
 Senior Honors Thesis
Mentor: Mieczyslaw Dabkowski
 The University of Texas at Dallas, Richardson, TX. Fall 2011 - Spring 2012

Quantum Compiling
 Independent Study in Quantum Computing
Mentor: Tobias Hagge
 The University of Texas at Dallas, Richardson, TX. Spring 2012

Covering Graphs, Voltage Assignments, and Hamiltonicity
 Mathematics REU at Bard College
Mentor: Lauren Rose
 Bard College, Annandale-On-Hudson, NY Summer 2011

Math Independent Study/Discussion Group
Mentor: Mieczyslaw Dabkowski
 The University of Texas at Dallas, Richardson, TX. Spring 2009 - Spring 2011

TEACHING EXPERIENCE

Instructor
 Calculus II
 Rice University, Houston, TX. Fall 2014

Instructor
 Multivariable Calculus
 Rice University, Houston, TX. Summer 2014

Teaching Assistant
 Calculus II
 Rice University, Houston, TX. Spring 2014

Teaching Assistant
 Multivariable Calculus
 Rice University, Houston, TX. Fall 2013

Teaching Assistant
 Chaos & Life Program in Mathematics for Young Women
 Rice University, Houston, TX. Spring 2013

Teaching Assistant
 Multivariable Calculus
 Rice University, Houston, TX. Spring 2013

	<i>Teaching Assistant</i> Differential Equations Rice University, Houston, TX.	Fall 2012
	<i>Math Tutor</i> UTD GEMS Math Lab The University of Texas at Dallas, Richardson, TX.	January 2011 - August 2012
	<i>Student Teacher</i> UTeach at UT Dallas Math, Engineering, Science, and Technology Academy, Carrollton, TX.	January 2012 - May 2012
	<i>PLTL (Peer-Led Team Learning) Leader</i> UTD GEMS Center	August - December 2010
	<i>Grader</i> UTD Math Department	January 2010 - December 2010
	<i>Teacher/Tutor</i> Kaplan Test Prep Dallas, TX.	January 2009 - May 2011
	<i>UTeach Field Experience and Curriculum Design</i> UTeach Program at UTDallas Various Dallas area schools.	Fall 2008 - Spring 2012
SERVICE	<i>Center for Teaching Excellence Graduate Liason</i> Graduate Student Association Rice University, Houston, TX	Summer 2014 - Present
	<i>Math Department Representative</i> Graduate Student Association Rice University, Houston, TX	Summer 2013 - Present
	<i>Math Club President</i> University of Texas at Dallas Rice University, Houston, TX	Fall 2009 - Spring 2012
COMPUTER SKILLS	MATLAB, Sage, L ^A T _E X, Python, Java	