Miriam Kuzbary

miriam.kuzbary (at) rice (dot) edu

RESEARCH INTERESTS	Knot and Link Concordance, Group Theory

EDUCATION

Ph.D. Mathematics
Rice University, Houston, TX.
August 2012 - May 2018 (Expected)
Advisor: Shelly Harvey

B.S. Mathematical Sciences
University of Texas at Dallas, Richardson, TX.
August 2008 - May 2012
Summa Cum Laude, Major Honors with Distinction, and Collegium V Honors

AWARDS

Graduate Research Fellowship *The National Science Foundation*	*2014-2017*
Bob E. and Lore Merten Watt Fellowship *Rice University*	*2012*
Fellowship (Declined for personal reasons) *The National Physical Sciences Consortium*	*2012*

TALKS AND POSTER SESSIONS

Knotified Link Concordance (Joint work with Matthew Hedden) *Junior Hausdorff Trimester Program in Topology* *Hausdorff Research Institute for Mathematics, Bonn, Germany*	*October 14, 2016*
Braids and combinatorial knot Floer homology *RTG Topology Seminar* *Rice University, Houston, TX*	*September 30, 2016*
How to Try Manifolds: The Lickorish-Wallace Theorem *Current Math Seminar* *Rice University, Houston, TX*	*September 22, 2016*
The handle chain complex, Quadratic Forms *Student-led Surgery Seminar* *Rice University, Houston, TX*	*Summer and Fall 2016*
The Slice Ribbon Conjecture and Tight Fibered Knots *RTG Topology Seminar* *Rice University, Houston, TX*	*February 19, 2016*
The Burau Representation *Current Math Seminar* *Rice University, Houston, TX*	*January 14, 2016*

Slice Links and Higher Order Intersections   *October 23, 2015*
RTG Topology Seminar
Rice University, Houston, TX

Reidemeister Torsion   *April 1, 2015*
RTG Topology Seminar
Rice University, Houston, TX

Knot Theory and Dynamics   *February 26, 2015*
Current Math Seminar
Rice University, Houston, TX

Invited Graduate Student Panelist
Nebraska Conference for Undergraduate Women in Mathematics *January 23-25, 2015*
The University of Nebraska-Lincoln, Lincoln, NE

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 Contact Geometry Seminar
Rice University, Houston, TX

Distributions and Integral Manifolds   *Spring 2014*
Student-led Differential Geometry Seminar
Rice University, Houston, TX

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

Fibered Links from Closed Braids   *October 11, 2013*
RTG Topology Seminar
Rice University, Houston, TX

An Introduction to Quandles   *March 14, 2013*
Current Mathematics Seminar
Rice University, Houston, TX

Algebra Structure on the Handlebody of Genus Two   *May 7, 2012*
Collegium V Poster Presentation for Graduating Seniors
University of Texas at Dallas, Richardson, TX

Covering Graphs, Voltage Assignments, and Hamiltonicity   *January 5, 2012*
Joint Mathematics Meetings
Hynes Convention Center, Boston, MA

Covering Graphs, Voltage Assignments, and Hamiltonicity   *July 16, 2011*
Discrete Mathematics Days

St. Michael's College, Colchester, VT

CONFERENCES ATTENDED

Conference on 4-manifolds and knot concordance   *October 17-21, 2016*
Max Planck Institute for Mathematics, Bonn, Germany

Perspectives in topology and geometry of 4-manifolds   *June 6-10, 2016*
Inter University Center, Dubrovnik, Croatia

Topology in dimension 3.5: A conference in memory of Tim Cochran   *June 1-4, 2016*
Rice University, Houston, TX

The 11th William Rowan Hamilton Geometry and Topology Workshop on Interactions Between Three and Four Manifolds   *August 25-29, 2015*
Trinity College Dublin, Dublin, Ireland

Princeton Low-Dimensional Topology Workshop 2015   *June 15-19, 2015*
Princeton University, Princeton, NJ

Moab Topology Conference   *May 18-21, 2015*
Utah State University Moab, Moab, UT

Redbud Topology Conference   *April 3-5, 2015*
Oklahoma State University, Stillwater, OK

Knot Theory and Its Applications to Physics and Quantum Computing   *January 6-9, 2015*
The University of Texas at Dallas, Richardson, TX

Texas Geometry and Topology Conference   *November 14-16, 2014*
The University of Texas at Austin, Austin, TX

Graduate Workshop on 4-Manifolds   *August 18-22, 2014*
Simons Center at Stony Brook University, Stony Brook, NY

Combinatorial Link Homology Theories, Braids, and Contact Geometry   *August 4-8, 2014*
ICERM at Brown University, Providence, RI

Topology Students Workshop   *June 9-13, 2014*
Georgia Institute of Technology, Atlanta, GA

Graduate Student Topology and Geometry Conference   *April 5-6, 2014*
The University of Texas at Austin, Austin, TX

Rice Dynamics Meetings (helped organize)   *May 3-5, 2013*
Rice University, Houston, TX

(Hempelfest) 3-manifolds: Heegaard Splittings, the Curve Complex, and Hyperbolic Geometry   *April 19-21, 2013*
Rice University, Houston, TX

Texas Geometry and Topology Conference   *November 9-11, 2012*

Rice University, Houston, TX

Joint Mathematics Meetings   January 5, 2012
Hynes Convention Center, Boston, MA

Discrete Mathematics Days   July 16, 2011
St. Michael's College, Colchester, VT

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

               Quantum Compiling   Spring 2012
               Independent Study in Quantum Computing
               Mentor: Tobias Hagge

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

               Math Independent Study/Discussion Group   Spring 2009 - Spring 2011
               Mentor: Mieczyslaw Dabkowski

TEACHING   *Rice Program in Mathematics for High School Students*   Summer 2016
EXPERIENCE *Chaos Theory and Fractals*
               Rice University, Houston, TX.

               Rice Emerging Scholars Program Instructor   Summer 2015
               Calculus I
               Rice University, Houston, TX.

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

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

               Teaching Assistant   Spring 2014
               Calculus II

Rice University, Houston, TX.

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

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

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

Teaching Assistant   Fall 2012
Differential Equations
Rice University, Houston, TX.

Math Tutor   January 2011 - August 2012
UTD GEMS Math Lab
The University of Texas at Dallas, Richardson, TX.

Student Teacher   January 2012 - May 2012
UTeach at UT Dallas
Math, Engineering, Science, and Technology Academy, Carrollton, TX.

PLTL (Peer-Led Team Learning) Leader   August - December 2010
UTD GEMS Center

Grader   January 2010 - December 2010
UTD Math Department

Teacher/Tutor   January 2009 - May 2011
Kaplan Test Prep
Dallas, TX.

UTeach Field Experience and Curriculum Design   Fall 2008 - Spring 2012
UTeach Program at UTDallas
Various Dallas area schools.

SERVICE   *Center for Teaching Excellence Graduate Liason*   Summer 2014 - Summer 2015
Graduate Student Association
Rice University, Houston, TX

Math Department Representative   Summer 2013 - Present
Graduate Student Association
Rice University, Houston, TX

Math Club President   Fall 2009 - Spring 2012
University of Texas at Dallas
Rice University, Houston, TX