

Anthony Bosman

CONTACT INFORMATION	Rice University Department of Mathematics 6100 Main Street Houston, TX 77005	(321) 388-1334 anthony.bosman@rice.edu anthonybosman.weebly.com
RESEARCH INTERESTS	Low-dimensional topology, knot theory, shake concordance of links, 4-manifolds.	
EDUCATION	Rice University Ph.D. Candidate, Mathematics (expected May 2017) Advisor: Shelly Harvey (2016), Andrew Putman (2015-2016), Tim Cochran (2013-2014) M.S. in Mathematics, December 2014 Stanford University B.S. in Mathematics (Honors), June 2012	
PAPERS	<i>Shake Slice and Shake Concordant Links</i> . In preparation. <i>Towards an Adventist Understanding of Mathematics</i> , Journal of Adventist Education. Forthcoming. <i>Learning and Service in Undergraduate Mathematics: A Literature Review</i> , 2015.	
TEACHING EXPERIENCE	Instructor, Rice University Rice Program in Mathematics for High School Students, Summer 2016 Single Variable Calculus II, Summer 2015 Multivariable Calculus, Fall 2014 Single Variable Calculus I, Summer 2014 Teaching Associate, Rice University Single Variable Calculus I (Flipped Classroom), Fall 2016 Single Variable Calculus I (Flipped Classroom), Fall 2015 Teaching Assistant, Rice University Knot Theory, Spring 2016 General Topology, Spring 2015 Multivariable Calculus, Spring 2014 Single Variable Calculus I, Fall 2013 Single Variable Calculus II, Spring 2013 Single Variable Calculus II, Fall 2012 Graduate Fellow, Center for Teaching Excellent, Rice University Organizer for Graduate Workshop on Teaching and Learning, October 2016 Advise graduate students on teaching and learning, Fall 2016-Spring 2017 Training and Professional Development Graduate Certificate in Teaching and Learning, Completed Spring 2016 Teaching Portfolio, Spring 2016 Practicum in College Teaching, Rice University, Fall 2015 Research on Teaching and Learning, Rice University, Spring 2015	

Invited Panelist for the Center of Teaching Excellence's Teaching Symposium,
Rice University, January 2015
Principles of Effective College Teaching, Rice University, Fall 2014
Graduate Teaching Seminar, Mathematics Department, Rice University, 2010-
2012

Teaching Assistant/Counselor, Stanford University
Stanford University Mathematics Camp, Summer 2011
Stanford Education Program for Gifted Youth, Summer 2010
Stanford Online High School, Summer 2010

INVITED
TALKS

Shake Concordance of Links, Topology Seminar (October 2016, Rice University)

Shake Slice and Shake Concordant Links, Knots in Hellas (July 2016, Olympia, Greece)

I Think Knot: how surfaces help us understand knots, Undergraduate Math-Physics
Seminar (October 2015, Andrews University)

Shake Slice and Shake Concordant Links, Topology Seminar (June 2015, Postech Uni-
versity)

Why Knot? An Introduction to Knot Theory, Undergraduate Math-Physics Seminar
(April 2015, Andrews University)

An Introduction to Knot Theory, Andrews Research Conference (May 2014, Andrews
University)

SELECTED
EXPOSITORY
TALKS

Conway's Theorem on Rational Tangles, Current Mathematics Seminar (Sep. 2016)

Milnor's Invariants and Self C_k -Equivalence, Topology Working Seminar (April 2016)

Iterated Bing Doubles, Concordance Invariants, and Covering Links, Topology Working
Seminar (November 2015, Rice University)

Quantum Money from Knots, Current Mathematics Seminar (Sep. 2015, Rice Univer-
sity)

Proving the Four-Color Theorem?, Current Mathematics Seminar (April 2015, Rice
University)

Constructing Slice Knots and Links, Topology Working Seminar (March 2015, Rice
University)

A Prime Decomposition for the String Link Monoid, Topology Working Seminar (Nov.
2014, Rice University)

Series of Lectures on Contact Geometry and Transverse Knots, Contact Geometry
Seminar (Fall 2014, Rice University)

An Introduction to Knot Theory, Andrews Research Conference (May 2014, Andrews
University)

On Levine's Algebraic Concordance Group for Knots, Topology Working Seminar (Apr.
2014, Rice University)

Series of Lectures on Differential Forms, Differential Geometry Seminar (Mar. 2014, Rice)

Rochlin's Invariant for Spin 3-Manifolds, Topology Working Seminar (Dec. 2013, Rice University)

Obstruction Theory, Current Mathematics Seminar (Oct. 2013, Rice University)

Link Concordance Implies Homotopy, Topology Working Seminar (Mar. 2013, Rice University)

On Dividing a Square into Equal Area Triangles, Current Math Seminar (Nov. 2012, Rice University)

Bott Periodicity, Topology Working Seminar (Aug. 2012, Rice University)

SERVICE AND
OUTREACH

Math Circle Coordinator (Fall 2015-Present)

Organizes bimonthly program for area high school students.

Math Circle Presenter (Fall 2014-Present). Presentations included:

Mathemagic: The Mathematics of Magic

The Pigeonhole Principle

The Four Color Theorem

Knots and Surfaces

The Mathematics of Fair Elections

CONFERENCES
ATTENDED

Knots in Hellas, International Olympic Academy, Olympia, Greece, July 17-23, 2016

Topology in dimension 3.5, Rice University, Houston TX, June 1-4, 2016

MAA-AMS Joint Mathematics Meetings, San Antonio TX, January 10-13, 2015

Special Session on Knot Theory

Session on Using Flipped Pedagogy

Case Studies in Best Practices for Classroom Teaching

Graduate Workshop on 4-Manifolds, Simons Center for Geometry and Physics, Stony Brook NY, August 18-22, 2014

Combinatorial Link Homology Theories, Braids, and Contact Geometry, Institute for Computational and Experimental Research in Mathematics (ICERM), Brown University, Providence RI, August 4-8, 2014

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

Andrews Research Conference, Andrews University, Berrien Springs MI, May 7-11, 2014

GRADUATE
COURSEWORK

- Geometric Topology
- Integration Theory
- Abstract Algebra
- Algebraic Topology
- Complex Analysis

- Topics in Topology (Differential Topology)
- Topics in Topology (Differential forms and de Rham cohomology)
- Topics in Topology (Heegaard Floer theory)
- Topics in Topology (Topics in Heegaard Floer homology)
- Topics in Topology (Concordance invariants from Heegaard Floer homology)