

Robyn Brooks

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| CONTACT INFORMATION | Department of Mathematics Tulane University 6823 St. Charles Avenue, New Orleans, LA 70118 | 801-558-4839 rbrooks3@tulane.edu robynkayebrooks.github.io |
| RESEARCH INTERESTS | Algebraic and Computational Topology. Knots and Links in \mathbf{R}^3 . | |
| EDUCATION | Tulane University , New Orleans, LA Ph.D., Mathematics, <i>Expected</i> : May 2020 <ul style="list-style-type: none">• Advisor: Rafal Komendarczyk, Ph.D Leeds School of Business, University of Colorado at Boulder , Boulder, CO Masters of Science in Business Administration, Finance, May 2014 <ul style="list-style-type: none">• Advisor: Iulian Obreja, Ph.D Trinity University , San Antonio, TX B.A., Mathematics, Honors Graduate, June 2009 | |
| RESEARCH EXPERIENCE | Tulane University, New Orleans, LA <ul style="list-style-type: none">• Summer Researcher Jun – Aug 2018• Summer Researcher Jun – Aug 2019 Leeds School of Business, University of Colorado at Boulder <ul style="list-style-type: none">• Hart Fellowship Researcher May 2012 – Aug 2012 SUNY Potsdam REU in Mathematics, Potsdam, NY <ul style="list-style-type: none">• Summer Researcher Jun – Aug 2008 | |
| TEACHING EXPERIENCE | Tulane University, New Orleans, LA <ul style="list-style-type: none">• Instructor Calculus II, Fall 2018, Abstract Algebra II, Spring 2019• Teaching Assistant Calculus I, Fall 2015, Fall 2016, Statistics for Scientists, Spring 2016, Spring 2018 Calculus III, Spring 2017, Linear Algebra, Fall 2017 University of Colorado at Boulder, Boulder, CO <ul style="list-style-type: none">• Instructor Introduction to Portfolio Management, Fall 2013• Teaching Assistant Introduction to Portfolio Management, Fall 2012 Girls Who Code Summer Immersion Program <ul style="list-style-type: none">• Lead Instructor IBM Campus, Austin, TX, Jun 2016 – Aug 2016 | |

- **Lead Instructor** Microsoft Campus, Seattle, WA, Jun 2017 – Aug 2017

Girls Who Code Campus Program

- **Lead Instructor** Web Design & Development, Washington D.C, Jul 2018
- **Lead Instructor** Wearable Technology & Fashion Design, Washington D.C, Jul 2018

Tulane University Pre-College Enrichment Program

- **Lead Instructor** NASAs ASTRO CAMP, New Orleans, LA, Jul 2019

PAPERS IN PREPARATION

1. Towards Directed Collapibility, with Robin Belton, Stefania Ebli, Lisbeth Fajstrup, Brittany Terese Fasy, Catherine Ray, Nicole Sanderson, and Elizabeth Vidaurre.

AWARDS

- Academic Awards — Tulane University, School of Science and Engineering
- Elizabeth Land Parks and Franklin Parks Scholar Aug 2016 – May 2017
- Research Awards — Tulane University, Department of Mathematics
- Summer Funding, Tulane University June 2018 – Aug 2018,
 - Summer Funding, Tulane University June 2019 – Aug 2019,
 - Hart Fellowship, UC Boulder, Leeds School of Business May 2012 – Aug 2012
- Service Awards — SIAM
- Outstanding SIAM Member, Tulane University Chapter June 2018 – June 2019

TALKS/ PRESENTATIONS

- Association for Women in Mathematics Discussion Series Feb 2017
Tulane University, **New Orleans, LA**
Finding Opportunities for Conferences, Workshops, Networking, etc.
- Graduate Student Colloquium, Apr 2017
Tulane University, **New Orleans, LA**
A History of Women in Mathematics
- Graduate Student Colloquium, Mar 2018
Tulane University, **New Orleans, LA**
Directed Topology and Dihomotopy Theory
- Graduate Student Colloquium, Sep 2018
Tulane University, **New Orleans, LA**
Unknotting the Knotty Notion of Knots (and Their Finite Type Invariants)
- USTARS Mentorship Panel, Apr 2019
Iowa State University, **Ames, IA**
- Knots and Braids in Norway, May 2019
NTNU, **Trondheim, Norway**
The Discretization of Configuration Space Integrals

POSTER PRESENTATIONS

- JMM Undergraduate Student Poster Session **Washington D.C.** Jan 5 – 8, 2009
Decompositions of Various Compact Riemannian Symmetric Spaces

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| PEER-REVIEWED CONFERENCE PAPERS | <ul style="list-style-type: none"> • Sankalpa Kulkarni. Voice-Driven User Interaction. <i>Grace Hopper Celebration for Women in Computing</i>, Oct 2017 | |
| CONFERENCES / WORKSHOP PARTICIPATION | <ul style="list-style-type: none"> • Michigan State University, Lansing, MI Apr 7 – 9, 2017 Graduate Student Topology and Geometry Conference • MSRI, Berkely, California Nov 29 – Dec 1, 2017 Women in Topology Workshop • Universitat Politècnica de Catalunya, Bellaterra, Spain Apr 15 – May 19, 2018 Research Group on Discrete, Combinatorial and Computational Geometry • Institut Henri Poincaré, Paris, France Jun 18 – 22, 2018 School on Low-Dimensional Geometry and Topology • EPFL, Laussane, Switzerland Nov 28 – 30, 2018 Workshop on Topology and Neuroscience • Rice University, Houston, Texas Apr 5 – 7, 2019 AWM Research Symposium • Iowa State University, Ames, Iowa Apr 26 – 28, 2019 USTARS • NTNU, Trondheim, Norway May 13 – 17, 2019 Knots and Braids in Norway • Australian National University, Canberra, Australia July 1 – 5, 2019 Workshop for Women In Computational Topology | |
| SERVICE | <ul style="list-style-type: none"> • American Mathematical Society Chapter, Aug 2015 – Present Member, Tulane University • American Mathematical Society Chapter, May 2017 – May 2019 Treasurer, Tulane University • Association for Women in Mathematics Chapter, Nov 2016 – Present Member, Tulane University • Association for Women in Mathematics Chapter, Nov 2016 – May 2017 Treasurer, Tulane University • Association for Women in Mathematics Chapter, May 2017 – May 2018 Vice President, Tulane University • Society for Industrial and Applied Mathematics Chapter, Aug 2015 – Present Member, Tulane University • Society for Industrial and Applied Mathematics Chapter, May 2018 – May 2019 President, Tulane University • Women+ in Science and Engineering Sep 2016 – Present Member • Women+ in Science and Engineering Sep 2017 – Present Undergraduate Mentor • Graduate Studies Student Association Sep 2015 – April 2017 Representative for Mathematics Department at Tulane University Library Advisory Board • Graduate Studies Student Association April 2017 – April 2018 Treasurer • Graduate and Professional Student Association Aug 2016 – Aug 2017 Representative for GSSA | |
| COMMUNITY OUTREACH | <ul style="list-style-type: none"> • GiST (Girls in STEM at Tulane) Welcome Table & Workshop Leader, Fall 2016, Spring 2017, Fall 2017, Spring 2018, Fall 2018, Spring 2019 • BATS (Boys at Tulane in STEM), Welcome Table & Workshop Leader, Spring 2017, | |

Fall 2017, Spring 2018, Fall 2018, Spring 2019

REFERENCES

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