# JUSTIN BARHITE

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#### EDUCATION —

2017–present	University of Kentucky, Lexington, KY
	Ph.D. Mathematics (expected May 2023)
	M.A. Mathematics (May 2019)
2013 - 2017	Carthage College, Kenosha, WI

B.A. Mathematics and Physics, summa cum laude (May 2017)

### Invited Talks —

April $2022$	Generalized Characters and Bicategorical (Co)traces, University of Virginia
	Topology Seminar
March $2022$	Bicategorical Traces and Cotraces, AMS Spring Southeastern Sectional Meeting
	(canceled)
February 2022	Bicategorical Traces and Cotraces, Monthly Meeting, NSF FRG on Trace Meth-
	ods and Cut-and-Paste K-Theory (online)

### Contributed Talks —

September 2022	<i>Multiplicativity of Trace in Representation Theory</i> , University of Kentucky Graduate Student Colloquium
March 2022	Traces and Fixed Points, University of Kentucky Topology Seminar
December 2021	Bicategorical Traces and Cotraces, University of Kentucky Topology Seminar
February 2021	String Diagrams for Closed Bicategories, University of Kentucky Topology Seminar
February 2021	Proof by Picture, University of Kentucky Graduate Student Colloquium
November 2020	The Hairy Ball Theorem, University of Kentucky Graduate Student Colloquium
September 2020	Bicategorical Traces and Cotraces, University of Kentucky Topology Seminar
April 2020	String Diagrams and Traces, University of Kentucky Graduate Student Colloquium
March 2020	Morita Equivalence and Traces, University of Kentucky Topology Seminar
February 2020	<i>Hochschild Homology and Cyclic Homology</i> , Electronic Computational Homotopy Theory Reading Seminar
November 2019	<i>Traces and Cotraces via Hochschild Homology</i> , University of Kentucky Topology Seminar
September 2019	Abstract Nonsense, University of Kentucky Graduate Student Colloquium
April 2018	Dualizability and Trace in Symmetric Monoidal Categories, University of Ken- tucky Topology Seminar
March 2018	<i>Two Spheres Are Better Than One</i> , University of Kentucky Graduate Student Colloquium
October 2017	<i>Riemann-Like, Super-Lebesque</i> , University of Kentucky Graduate Student Colloquium

November 2016	Classifying the Order 4 Magic Squares (with Mike Leazer), Pi Mu Epsilon Re-
	gional Conference, St. Norbert College
November 2015	They See Me Rollin': An Analysis of the Game Tenzi, Pi Mu Epsilon Regional Conference, St. Norbert College
Awards —	

2022	Provost's Award for Outstanding Teaching (UKY)
	Awarded annually to 3-4 TAs across the University
2021	Summer Research Fellowship, Mathematics Department (UKY)
2021	Certificate of Outstanding Teaching, College of Arts & Sciences (UKY)
	Awarded annually to 15 TAs across the College of Arts & Sciences
2017 - 2020	Max Steckler Fellowship, Mathematics Department (UKY)

# TEACHING —

#### Instructor of Record

Spring $2022$	MA 111 Introduction to Contemporary Mathematics
Fall 2021	MA 111 Introduction to Contemporary Mathematics
Spring $2021$	MA 310 Mathematical Problem Solving for Teachers
Fall 2020	MA 241 Geometry for Middle School Teachers
Spring $2019$	MA 202 Math for Elementary Teachers
Fall 2018	MA 109 College Algebra
Summer 2018	MA 213 Calculus III

#### **Recitation Leader**

Fall 2022	MA 110 Algebra and Trigonometry for Calculus
Spring 2020	MA 114 Calculus II (MathExcel*)
Fall 2019	MA 113 Calculus I (MathExcel <sup>*</sup> )
Spring 2018	MA 113 Calculus I
Fall 2017	MA 110 Algebra and Trigonometry for Calculus

\*Students in MathExcel sections spend extra time in recitation each week, working on problems in small groups with assistance from the TA and undergraduate assistants.

# Service —

2021–present	Member, University of Kentucky Working Group on Ethics, Equity, Inclusion,
	and Justice in the Mathematical Sciences
2018–present	Peer mentor, Mathematics Graduate Mentoring Program
August 2022	<b>Panelist</b> , Graduate Student Panel on Research and Study
Fall 2021	Member, Mathematics Department Chair Search Committee
August 2021	<b>Co-facilitator</b> , Inclusive Syllabus Review Workshop
2021	Session leader, Preliminary Exam Coaching, Topology
2020 - 2021	Co-chair, Math Department Graduate Student Council
Spring 2019	Coordinator, Graduate Student Colloquium
Fall 2018	Co-coordinator, Graduate Student Colloquium

### Conferences and Workshops Attended -

August 2022	Collaborative Workshop in Homotopy Theory (University of Virginia)
July 2022	Homotopical Methods in Fixed Point Theory Workshop (CU Boulder)
November 2021	Midwest Topology Seminar (virtual)
April 2021	Graduate Student Topology and Geometry Conference (virtual)
April 2021	Midwest Topology Seminar (virtual)
October 2020	Midwest Topology Seminar (virtual)
May 2020	Midwest Topology Seminar (virtual)
October 2019	Midwest Topology Seminar (University of Chicago)
September 2019	AMS Fall Central Sectional Meeting (UW-Madison)
April 2019	Shanks Workshop on Homotopy Theory (Vanderbilt)
March 2019	Graduate Student Topology and Geometry Conference (UIUC)
February 2019	Midwest Topology Seminar (UIUC)
September 2018	Midwest Topology Seminar (University of Kentucky)

#### References -

Kate Ponto (advisor), University of Kentucky, kate.ponto@uky.edu Inbar Klang, Columbia University, klang@math.columbia.edu Cary Malkiewich, Binghamton University, malkiewich@math.binghamton.edu Brad Elliott (teaching), University of Kentucky, bradley.elliott@uky.edu erica Whitaker (teaching), University of Kentucky, ewhitaker@uky.edu