

Kalila Joelle Sawyer

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EDUCATION	University of Kentucky , Kentucky, USA	
	Ph.D. in Mathematics	May 2020
	- Thesis Title: Scrollar Invariants on Tropical Chains of Loops	
	- Advisor: David Jensen	
	M.A. in Mathematics	May 2017
	University of Alaska Anchorage , Alaska, USA	
	B.S., Magna Cum Laude, in Mathematics	May 2015
TEACHING EXPERIENCE	Primary Instructor	
	- MA 111, Intro to Contemporary Math	Fall 2019
	- MA 109, College Algebra	Summer 2019
	- MA 201, Math for Elementary School Teachers	Fall 2017
	MathExcel Workshop Leader	
	- MA 114, Calculus II	Spring 2019
	- MA 113, Calculus I	Fall 2018
	Lead TA	
	- MA 123, Elementary Calculus and its Applications	Spring 2018
	Grader	
	- MA 661, Modern Algebra II	Spring 2018
	Recitation Leader	
	- MA 162, Finite Math and its Applications	Spring 2017
	- MA 137, Calculus I with Life Science Applications	Fall 2016
	- MA 123, Elementary Calculus and its Applications	Spring 2016
	- MA 113, Calculus I	Fall 2015
	Other	
	- Algebra Prelim Exam Review Session Leader	Spring 2019
		Spring 2018
	- Undergraduate Peer Tutor	August 2014-May 2015
PUBLICATIONS AND PREPRINTS	1 <i>Scrollar Invariants of Tropical Curves</i> with D. Jensen, (<i>in preparation</i>).	
HONORS AND AWARDS	Wimberly C. Royster Outstanding Teaching Assistant Award	May 2018
	Daniel R. Reedy Quality Achievement Award	August 2015–May 2017
	Graduate Scholars in Mathematics Fellowship	August 2015-May 2017
	Merit-Based Tuition Waivers	August 2013-May 2015

TALKS AND
PRESENTA-
TIONS

<i>Scrollar Invariants of Tropical Curves</i>	Joint Mathematics Meetings, Denver, CO	January 2020
<i>Life Isn't Fair, and Neither is Voting Theory</i>	Graduate Student Colloquium, University of Kentucky	September 2019
<i>Calculating Tropical Scrollar Invariants on k-gonal Chains of Loops</i>	Midwest Algebraic Geometry Graduate Conference	March 2019
<i>Scrollar Invariants are *Always* Fun</i>	Algebra Seminar, University of Kentucky	December 2018
<i>Calculating Scrollar Invariants Via Young Tableaux (Poster)</i>	AGNES	September 2018
<i>Stacks of Boxes are Better Than Chains of Loops</i>	Graduate Student Colloquium, University of Kentucky	September 2018
<i>The Truth About Lie Groups</i>	Topology Seminar, University of Kentucky	April 2018
<i>Setting Up Finite Geometry</i>	Graduate Student Colloquium, University of Kentucky	March 2018
<i>The Maroni Invariant of Trigonal Chains of Loops (Qualifying Exam)</i>	Algebra Seminar, University of Kentucky	February 2018
<i>The Grassmannian is Always Greener</i>	Topology Seminar, University of Kentucky	October 2017
<i>Mathematicians Have Always Been...Interesting</i>	Graduate Student Colloquium, University of Kentucky	September 2017
<i>Special Divisors on Marked Chains of Cycles (Master's Exam)</i>	Algebra Seminar, University of Kentucky	April 2017
<i>Geometric Multiplicity and Geršgorin Discs</i>	Graduate Student Colloquium, University of Kentucky	November 2015

SERVICE

Association for Women in Mathematics , Officer	July 2019-June 2020
Consortium for Mathematics and its Applications (COMAP)	
Interdisciplinary Contest in Modeling , Triage Judge	February 2019
UK Mathematics Graduate Student Council , Co-Chair	May 2017– May 2018
First Year Peer Mentor	August 2017-May 2019
Julia Robinson Mathematics Festival , Graduate Assistant	November 2017
Central Kentucky High School Math Circles , Graduate Assistant and Session Leader	September 2016-February 2019
UK High School Math Day for Women , Graduate Assistant	November 2015

CONFERENCES
AND
WORKSHOPS

Joint Mathematics Meetings (<i>funded</i>)	
Denver, Colorado	January 2020
STEM Faculty Launch Workshop (<i>funded</i>)	
Worcester Polytechnic Institute, Massachusetts	October 2019
WARTHOG: Workshop on Algebra and Representation Theory Held on Oregonian Grounds (<i>funded</i>)	
University of Oregon, Eugene	July 2019
MSRI Summer School: Commutative Algebra and its Interaction with Algebraic Geome- try (<i>funded</i>)	
University of Notre Dame, Indiana	June 2019

GATTACA: Georgia Tech Tropical, Arithmetic and Combinatorial Algebraic-geometry (funded)	Georgia Tech, Atlanta	April 2019
SAGE Days 98: Women in Sage (funded)	Archanes, Crete, Greece	April 2019
MAGGC: Midwest Algebraic Geometry Graduate Conference (funded)	University of Illinois at Chicago	March 2019
KY-WV LSAMP Research Symposium	Marshall University, Huntington, West Virginia	March 2019
AGNES: Algebraic Geometry Northeastern Series (funded)	Brown University, Providence, Rhode Island	Fall 2018
	Northeastern University, Boston, Massachusetts	Fall 2017
AMS Spring Central Sectional Meeting (funded)	The Ohio State University, Columbus	March 2018
GAGS: The Georgia Algebraic Geometry Symposium (funded)	Georgia Tech, Atlanta	February 2018
Mathfest 2017 (funded)	Chicago, Illinois	July 2017
Kentucky MAA Annual Meeting	Berea College, Kentucky Spring 2017	
	Northern Kentucky University, Highland Heights Spring 2016	

INTERESTS Algebraic Geometry, Tropical Brill-Noether Theory, Graph Theory, Combinatorics

MEMBERSHIPS American Mathematical Society
 Association for Women in Mathematics
 Mathematical Association of America