# Colin M. Lawson

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Estimated May 2023

#### **Education History**

	Estimated may 2020
· Thesis advisor: Dr. Anne V. Shepler	
• Research areas: Noncommutative algebra and deformation theory	
• Thesis title: Hochschild cohomology of finite cyclic groups acting on g	polynomial rings
SAM HOUSTON STATE UNIVERSITY, M.S. in mathematics	May 2014
SCHREINER UNIVERSITY, B.A. in mathematics and B.B.A. in accounting	May 2012

#### **Published Papers and Preprints**

- 1. Deformation cohomology for cyclic groups acting on polynomial rings with Anne V. Shepler, submitted 2022. https://arxiv.org/abs/2210.12245
- 2. Ph.D. Thesis: Hochschild cohomology of finite cyclic groups acting on polynomial rings. Expected submission Spring 2023.

#### **Teaching Experience**

UNIVERSITY OF NORTH TEXAS, Class sizes: min 15, max 114

UNIVERSITY OF NORTH TEXAS. Ph.D. in mathematics

	<ul> <li>Calculus I, Summer 2021</li> <li>Pre-Calculus, Fall 2018, Spring 2019, Fall 2020, Spring 2021, Spring 2022</li> <li>Integrated Pre and Beginning Algebra, Fall 2019</li> </ul>
	<ul> <li>Calculus II, Fall 2016, Fall 2021</li> <li>Calculus I, Spring 2017, Spring 2020, Summer 2020</li> <li>Pre-Calculus, Fall 2017, Spring 2018</li> </ul>
SAM HOUSTON STATE	UNIVERSITY, Class sizes: min 14, max 90
<ul> <li>Instructory</li> </ul>	Flomentary Functions Spring 2016

• Instructor:	· Elementary Functions, Spring 2016
	· Plane Trigonometry, Spring 2016
	· Pre-Calculus, Spring 2014, Fall 2015, Spring 2016
	· College Mathematics, Fall 2015, Spring 2016
	· Intermediate Algebra, Spring 2013, Fall 2013

TRINITY HIGH SCHOOL, Class sizes: min 7, max 21

Teacher:
 Honors Geometry, Fall 2014 – Spring 2015
 Geometry, Fall 2014 – Spring 2015
 STAAR (Texas Assessment) Readiness course, Fall 2014 – Spring 2015
 TSI (Texas Success Initiative) course, Fall 2014 – Spring 2015

#### Honors and Awards

• Outstanding Teaching Fellow of Mathematics Award, UNT	2020 - 2021
• Outstanding Mathematics Graduate Student Award, UNT	2019 - 2020

## Talks and Presentations

CONFERENCE TALKS

• ICRA (Int'l Conference on Reps. of Algebras), Buenos Aires, Argentina	August 2022
Deformation cohomology for cyclic group actions on polynomial rings	
• GAS (Graduate Algebra Symposium), UT-Arlington	April 2022
Deformation cohomology for cyclic group actions on polynomial rings	
• TORA (TX-OK Rep. & Automorphic Forms), OSU	April 2022
Deformation cohomology for cyclic group actions (poster)	
• SLAM (Southwest Local Algebra Meeting), Baylor University	February 2022
Deformation cohomology for cyclic group actions (poster)	
• GAS (Graduate Algebra Symposium), OU	April 2021
Graded deformations of skew group algebras (online)	

TALKS AT THE UNIVERSITY OF NORTH TEXAS

• Algebra Seminar, Deformation cohomology for cyclic group actions	March 2022
• Graduate Algebra Group, Deformations of associative algebras	March $2022$
• Graduate Algebra Seminar, Graded deformations of skew group algebras	April 2021
• Algebra Seminar, Hochschild cohomology and deformations	November 2019
• Graduate Algebra Group, Advice for qualifying exams practice	November 2019
• Algebra Seminar, An introduction to Koszul complexes	April 2019

## Professional Service and Community Outreach Activities

Organizer of Conferences and Seminars

- Graduate Algebra Symposium (organizer), Fall 2020, Fall 2021, Spring 2022 Regional algebra conference by and for graduate students, joint with UNT, OU, UTA, TAMU
- Math Grad Student Seminar (co-creator), UNT, Fall 2019 Spring 2020 Weekly seminar on professional aspects, such as advisor selection and career opportunities
- TX-OK Rep. & Automorphic Forms (assistant organizer), UNT, April 2019 Providing support to the conference attendees and local organizers
- UNT Math Department (grad student recruiter), Fall 2019 present Showing prospective graduate students the campus and answering questions about the program
- UNT Math Department (grad student mentor), Fall 2016 present Guiding incoming graduate students as they navigate their first year in the program

### OUTREACH

- REU, Sam Houston State University in Huntsville, July 13, 2022 Short presentation, speaking about the perks and challenges I experienced in grad school
- STEM Interest Community, UNT Honors College, October 14, 2020 Informal Q & A session about my experience in grad school in math
- MATH MashUp: "Math and Sandpiles" (creator), Sabinal Public Library, July 14, 2020 Outreach event for middle- and HS-aged students interested in math (24 participants)
- STEM Expo, I.M. Terrell Academy Magnet High School in Ft. Worth, November 19, 2019 Classroom presentations (×7), speaking on sandpile groups (about 15 students per class)
- Math and Science Camp, McMath Middle School in Denton, November 2, 2019 Classroom sessions (×4), leading the "31-derful" challenge activity (about 7 students per class)
- UNT Make A Difference Day, Shiloh Fields Garden in Denton, October 26, 2019 Farm work, helping the garden continue to produce food for low income families