TEXAS STATE VITA

I. Academic/Professional Background

A. Name and Title

Name: Dr. Cameron L. Farnsworth Title: Assoc Professor of Instruction

B. Educational Background

Degree	*Year*	*University*	*Major*	*Thesis/Dissertation*
PHD	2016	Texas A&M University	Mathematics	The polynomial Waring problem and the determinant
BS	2010	Ball State University	Mathematical Sciences	

C. University Experience

Position	*University*	*Comments*	*Dates*
Associate Professor of Instruction, Mathematics Department	Texas State University. San Marcos, TX, United States		September 1, 2024 - Present
Senior Lecturer, Mathematics Department	Texas State University. San Marcos, TX, United States		September 1, 2021 - August 31, 2024
Lecturer, Mathematics	Texas State University. San Marcos, TX, United States		September 1, 2018 - August 31, 2021
Posdoctoral Fellow, Mathematics	Yonsei University. Seoul, South Korea		September 1, 2016 - July 31, 2018
Graduate Teaching Assistant, Mathematics	Texas A&M University at College Station. College Station, TX, United States	During which I was Instructor of Record for Math 166 Topics in Contemporary Mathematics II.	September 2011 - August 2016
Graduate Assistant	Ball State University. Muncie, United States	Graduate assistant with the London Centre Study Abroad Program for Ball State	January 2011 - April 2011

Position	*University*	*Comments*	*Dates*
		University in the Spring of 2011.	

II. TEACHING

B. Courses Taught:

Texas State University:

MATH 1315 - COLL ALGEBRA

MATH 1316 - SURV CONTEMP MATH

MATH 1319 - MATH BUS & ECO I

MATH 1319 - MATH FOR BUSINESS & ECON I

MATH 1329 - MATH BUS & ECO II

MATH 2358 - DISCRETE MATH I

MATH 2358 - DISCRETE MATHEMATICS I

MATH 2417 - PRE-CALCULUS MATH

MATH 2471 - CALCULUS I

MATH 2472 - CALCULUS II

MATH 3377 - LINEAR ALGEBRA

MATH 3398 - DISCRETE MATH II

MATH 3398 - DISCRETE MATHEMATICS II

Texas A&M University:

Math 166 - Topics in Contemporary Mathematics II

III. SCHOLARLY/CREATIVE

A. Works in Print (including works accepted, forthcoming, in press):

2. Articles:

a. Refereed Journal Articles:

Farnsworth, C., Bernstein, D. I., & Rodriguez, J. I. (2020). The algebraic matroid of the finite unit norm tight frame (funtf) variety. *Journal of Pure and Applied Algebra*, *224*(8).

Farnsworth, C. L. (2016). Koszul–Young flattenings and symmetric border rank of the determinant. *Journal of Algebra*, *447*, 664–676. https://doi.org/10.1016/j.jalgebra.2015.11.011 http://dx.doi.org/10.1016/j.jalgebra.2015.11.011

B. Works Not in Print:

2. Invited Talks, Lectures, and Presentations:

Farnsworth, C. L., Geometry Seminar, "Algebraic funtf Completion," Texas A&M University, Texas A&M University, College Station, TX, United States. (January 14, 2019).

Farnsworth, C. L., Hur, Y. (coauthor), 2018 Korean Society for Industrial and Applied Mathematics Spring Conference, "Sums of Square Magnitude Polynomials and Wavelet Frame Generators," Korean Society for Industrial and Applied Mathematics, KAIST, Daejeon, South Korea. (May 2018).

Additional Comments: Special session on Applied Algebra and Geometry

Farnsworth, C. L., Hur, Y. (Coauthor), SIAM Conference on Applied Algebraic Geometry 2017, "A Rectangular Relaxation for Multi-D Filter Bank Design Using Laurent Polynomials," Society for Industrial and Applied Mathematics, Georgia Institute of Technology, Atlanta, United States. (August 2017).

Additional Comments: Minisymposium on Applications of Algebra to Signal Processing and Digital Imaging

Farnsworth, C. L., Seminar at Konkuk University, "Lower bounds on the symmetric border rank of the determinant polynomial," Konkuk University Mathematics Department, Konkuk University, Seoul, South Korea. (January 20, 2017).

Farnsworth, C. L., Joint Mathematics Meetings 2016, "Secants of the Veronese and the Determinant," American Mathematical Society and Mathematical Association of America, Washington State Convention Center, Seattle, WA, United States. (January 2016).

Additional Comments: Special Session on Tensor Decompositions and Secant Varieties

Farnsworth, C. L., Algebra Seminar at Georgia Institute of Technology, "Secants of the Veronese and the Determinant," Georgia Institute of Technology Mathematics Department, Georgia Institute of Technology, Atlanta, United States. (November 2015).

Farnsworth, C. L., Geometry Seminar at Texas A&M University, "Young flattenings and the Determinant," Texas A&M University Mathematics Department, Texas A&M University, College Station, United States. (November 2015).

E. Scholarly / Creative Professional Development Activities Attended:

Conference Attendance, "JM Invariant at 60: A Conference on Tensor Invariants in Geometry and Complexity Theory," Auburn, AL, United States. (May 15, 2024 - May 17, 2024).

Conference Attendance, "TAGS: Texas Algebraic Geometry Symposium," Texas A&M University, College Station, TX, United States. (April 5, 2024 - April 6, 2024).

Conference Attendance, "TAGS: Texas Algebraic Geometry Symposium," Texas A&M University, College Station, TX, United States. (October 1, 2022).

Conference Attendance, "2018 Spring Conference," Korean Society for Industrial and Applied Mathematics, Daejeon, South Korea. (May 25, 2018 - May 26, 2018).

Additional Comments: This was held at the Korea Advanced Institute of Science and Technology.

Conference Attendance, "NSF CBMS Conference Tensors and their uses in approximation theory, quantum information theory and geometry," Conference Board of the Mathematical Science, Auburn, AL, United States. (July 24, 2017 - July 28, 2017).

Additional Comments: This was held at Auburn University.

Conference Attendance, "TAGS: Texas Algebraic Geometry Symposium," University of Texas at Austin, Austin, TX, United States. (April 2, 2016 - April 3, 2016).

Conference Attendance, "TAGS: Texas Algebraic Geometry Symposium," Texas A&M University, College Station, TX, United States. (April 10, 2015 - April 12, 2015).

Conference Attendance, "TGTC: Texas Geometry and Topology Conference," University of Houston, Houston, TX, United States. (February 27, 2015 - March 1, 2015).

Institute, "Algorithms and Complexity in Algebraic Geometry," Simons Institute for the Theory of Computing, Berkeley, CA, United States. (August 21, 2014 - December 19, 2014).

Additional Comments: My role was as a visiting graduate assistant.

Continuing Education Program, "PI Summer graduate program: Modern Applications of Representation Theory," Institute for Mathematics and its Applications, Chicago, IL, United States. (July 20, 2014 - August 6, 2014).

Additional Comments: This was held at University of Chicago.

Conference Attendance, "Noncommutative Geometry Festival," Texas A&M University, College Station, TX, United States. (April 30, 2014 - May 3, 2014).

Conference Attendance, "CombinaTexas," Texas A&M University, College Station, TX, United States. (April 19, 2014 - April 20, 2014).

Conference Attendance, "TAGS: Texas Algebraic Geometry Symposium," Rice University, Houston, TX, United States. (April 4, 2014 - April 6, 2014).

Conference Attendance, "SLAM: Southwest Local Algebra Meeting," Texas A&M University, College Station, TX, United States. (March 1, 2014 - March 2, 2014).

Conference Attendance, "TGTC: Texas Geometry and Topology Conference," Texas A&M University, College Station, TX, United States. (October 11, 2013 - October 13, 2013).

Conference Attendance, "TAGS: Texas Algebraic Geometry Symposium," University of Texas at Austin, Austin, TX, United States. (April 6, 2013 - April 7, 2013).

Conference Attendance, "TAGS: Texas Algebraic Geometry Symposium," Texas A&M University, College Station, TX, United States. (April 27, 2012 - April 29, 2012).

IV. SERVICE

A. Institutional

1. University:

Math Department Representative, Bobcat Day. (February 16, 2019).

Math Department Representative, Bobcat Day. (October 13, 2018).

2. College:

Presented an activity on behalf of the Math Department, COSE Open House. (August 20, 2025).

Directed an Activity for the Math Department at the event, Bobcat Admitted Students Experience. (April 12, 2025).

Additional Comments: Demonstrated some activities from calculus labs using calculator based radars.

Participant, COSE Open House. (August 21, 2024).

Additional Comments: Presented a table to advertise Problem Solvers! at this COSE event.

Participant, College of Science & Engineering Open House. (March 30, 2019).

Additional Comments: (Co)managed a presentation room for the CoSE Open House. Presented demonstrations using calculator based labs and radars that could be incorporated into the calculus classroom.

3. Department/School:

Undergraduate Advisor, Math Club. (August 25, 2025 - Present).

Member, Committee on Committees. (October 11, 2024 - Present).

Member, Student Affairs Committee. (January 1, 2023 - Present).

Additional Comments: As the organizer for Problem Solvers, I am on the SAC ex-officio, the start date should go back prior to the date listed, but I cannot identify the date.

University Mentor, Faculty Mentor. (August 20, 2022 - Present).

Additional Comments: Mentorship of at least one faculty member of lower rank or graduate student from the department each semester.

Organizer, Discrete Mathematics Teaching Forum. (August 26, 2019 - Present).

Organizer, Problem Solvers! Group. (August 26, 2019 - Present).

Member, Calculus Teaching Forum. (January 1, 2021 - December 10, 2024).

Participant, Math 1319 and 1329 Business Math Teaching Forum. (September 2018 - December 10, 2024).

Participant, Pi Mu Epsilon Math Bash. (August 29, 2024).

Additional Comments: Represented Problem Solvers! at this event hosted by Pi Mu Epsilon. This event was organized to allow the various

extracurricular groups within the math department a time and location to share with students what the group does.

Graduate Student Talk Session Moderator, Spring Meeting of the Texas Section of the MAA. (March 23, 2024).

Participant, Math Club's Live Action Clue Night. (November 27, 2023).

Participant, Graduate Programs Expo. (October 20, 2023).

Additional Comments: Problem Solvers had a table display during the poster session. In addition, I attended other events during the day.

Participant, Math 2417 Pre-Calculus Teaching Forum. (September 2018 - December 10, 2022).

Participant, Graduate Student Expo. (November 4, 2022).

Additional Comments: I served as a judge for the Rapid-Fire Research Talks. In addition, I had a table set up to advertise for the Problem Solvers! group.

Rapid-Fire Research Judge, Graduate Student Expo. (November 5, 2021).

Member, Math 1315 Teaching Forum. (January 1, 2021 - May 7, 2021).

Member, Listening to Students Subcommittee. (July 1, 2020 - December 31, 2020).

Additional Comments: This is a subcommittee of the Student Affairs Committee. Work with what became this subcommittee started in July of 2020 before this was officially a committee.

Participant, Graduate Expo. (November 6, 2020).

Additional Comments: Judge for the Rapid Fire Research competition and created a short commercial for the Problem Solvers to be shown at the event.

Organizer, Putnam Competition. (December 7, 2019).

Additional Comments: Proctored the 2019 Putnam Competition for Texas State University's participants.

Member, Problem Solvers! Group. (November 13, 2018 - August 25, 2019).

Presented a poster at the poster session., Math Graduate Programs Expo. (November 2, 2018).

Additional Comments: Volunteered by presenting a poster of my research at the poster session that was a part of the expo.

B. Professional:

Reviewer / Referee, Journal of Algebra. (January 2018 - Present).

Coordinator / Organizer, JM Invariant at 60: A Conference on Tensor Invariants in Geometry and Complexity Theory, Auburn, TX, United States. (May 13, 2024 - May 17, 2024).

Officer, Texas A&M University AMS-Graduate Student Chapter, College Station, TX, United States. (September 2014 - May 2016).

Additional Comments: Vice President

C. Community:

Volunteer, Math Club (Blanco Vista Math Fun Night), San Marcos, TX. (November 7, 2019).

Volunteer, TAMU Math Circle, College Station, TX. (September 2013 - April 2014).

D. Organization Memberships:

American Mathematical Society (AMS). (September 2011 - December 31, 2019).

E. Service Honors and Awards:

Award / Honor Nominee: Faculty Excellence Award for Service.
October 30, 2020

G. Service Professional Development Activities Attended:

Conference Attendance, "SIAG17: SIAM Conference on Applied Algebraic Geometry," Society for Industrial and Applied Mathematics, Atlanta, GA, United States. (July 31, 2017 - August 4, 2017).

Additional Comments: This was hosted at Georgia Institute of Technology. I co-organized a minisymposium at this conference titled Applications of Algebra to Signal Processing and Digital Imaging.