LUIS C. FLORES

Email: yuf25@txstate.edu ⋄ Citizenship: American

EDUCATION

University of Missouri - Columbia December 2025
PhD in Mathematics
Advisor: Dr. Călin Chindriș
Thesis: The Paulsen Problem for Partitioned Frames

Texas A&M University - Corpus Christi May 2018
M.S. in Mathematics
Advisor: Dr. Beate Zimmer
Thesis: Non-Commutative Weak*-Continuous Operator Extensions

Texas A&M University - College Station May 2016
B.S. in Applied Mathematics
Minor in Chemistry

RESEARCH INTERESTS

Primary: Representation Theory of Quivers • Geometric Invariant Theory • Frame Theory.
Secondary: Representation Theory of Lie Groups/Algebras • Coding Theory.

EMPLOYMENT

Texas State University August 2026 - Present
Lecturer

University of Missouri August 2018 - May 2025
Graduate Instructor

Texas A&M University - Corpus Christi May 2016 - May 2018
Graduate Instructor

Texas A&M University - College Station August 2014 - May 2015
Undergraduate Teaching Assistant, Help Session Leader and Grader

PUBLICATIONS

PhD Dissertation: The Paulsen Problem for Partitioned Frames. Supervised by Dr. Călin Chindriș.

The Hoffman - Rossi Theory for Operator Algebras (with Dr. Beate Zimmer and Dr. David Blecher), Journal on Integral Equations and Operator Theory, Vol 91 Article Number 17,(2019).

TALKS

MU Graduate Student Seminar, Introduction to Algebraic Groups Spring 2025
MU Graduate Student Seminar, Inequalities in Convex Geometry Fall 2024
MU Graduate Student Seminar, Introduction to Finite Frames Spring 2024
MU Student Algebraic Geometry Seminar, Visualizing Zariski Spring 2023
MU Graduate Student Seminar, Introduction to Quivers, Representations and Path Algebras Fall 2022
MU Student Algebraic Geometry Seminar, Sheaves on a Base Fall 2022
MU Student Analysis Seminar, The Banach-Alaoglu Theorem Spring 2020
MU Student Analysis Seminar, Weak and Weak* Topologies Spring 2020
MU Graduate Student Seminar, Operator Spaces: Extending the work of Hoffman and Rossi Fall 2018

ACADEMIC PROJECTS

Directed Reading Program: Character Theory.
Text: A Journey through Representation Theory by Gruson and Serganova.

Directed Reading Program: Representation Theory of Groups.
Text: An Invitation to Representation Theory by Howe.

Directed Reading Program: Finite Frames.
Text: Frames for Undergraduates by Han, Kornelson, Larson, and Weber.

Directed Reading Program: Convex Analysis and Optimization.
Text: Convex Optimization Theory by Bertsekas.

Directed Reading Program: Introduction to Quiver Representations.
Text: Quiver Representations by Ralf Schifler.

Course Creation and Design: Complex Analysis for Educators.
Supervisor: Dr. Nakhle Asmar.
Text: Complex Analysis with Applications by Asmar and Grafakos.
Created a Complex Analysis for Educators (MATH 7940) course from scratch. Duties: Canvas course page design and maintenance, lecture planning and production, homework assignment and grading, student presentations planning and implementation, grading scale management, and handling student communication.

Computer Program and Theory: Capacity of a Quiver Datum.
Language: Python.
Purpose: The theory of quiver representations is directly connected to the theory of the Brascamp-Lieb inequality through the notion of the capacity of a quiver datum. This connection is exploited through my PhD thesis in an abstract manner. However, this programming project focuses on actually computing the numerical value of the capacity of any given quiver datum.

CONFERENCES ATTENDED

AMS Spring Sectional Meeting 2025 (University of Kansas)
KUMUNU 2024 (University of Missouri)
KUMUNU 2023 (University of Missouri)
Geometric Methods in Representation Theory 2019 (University of Missouri)
Paul Erdos Lecture Series 2019 (University of Memphis)
Summer Informal Regional Functional Analysis Seminar (SUMIRFAS) 2017 (Texas A&M University - College Station)
Coastal Bend Mathematics and Statistics Symposium 2017 (Texas A&M University - Kingsville)
Coastal Bend Mathematics and Statistics Symposium 2016 (Texas A&M University - Corpus Christi)

TEACHING EXPERIENCE

Texas State University
MATH 1315 College Algebra
MATH 2472 Calculus II

University of Missouri
MATH 0110 Intermediate Algebra
MATH 1100 College Algebra
MATH 1160 Precalculus Mathematics
MATH 1400 Calculus for Social and Life Sciences
MATH 1500 Analytic Geometry and Calculus I
MATH 1700 Calculus II
MATH 4940/7940 Introduction to Complex Variables

Texas A&M University - Corpus Christi
MATH 1442 Statistics for Life
MATH 2413 Calculus I
MATH 2414 Calculus II

Texas A&M University - College Station
MATH 221 Several Variables Calculus
MATH 171 Analytic Geometry and Calculus

SERVICE

University of Missouri Graduate Seminar (Organizer)	Fall 2021 - Spring 2025
University of Missouri Directed Reading Program (Mentor)	Spring 2023 - Fall 2024
University of Missouri Science en Español (Presenter)	Fall 2024
University of Missouri First Year Graduate Student Teaching Workshop (Mentor)	Fall 2020 - Fall 2023
University of Missouri AMS Graduate Chapter (President)	Spring 2020 - Spring 2022
University of Missouri Math@CASE (Director)	Fall 2019 - Spring 2021

LANGUAGES AND COMPUTER SKILLS

English (Fluent), Spanish (Native).
Typesetting in LaTeX.
Programming in Python, Java, C++, R, Haskell and Matlab.
Microsoft Office Suite.

AWARDS AND HONORS

Mathematics Distinguished Teaching Award: University of Missouri	2022 - 2023
Outstanding Community Service Award: University of Missouri	2021 - 2022
Excellence on the Analysis Qualifying Exam: University of Missouri	2020 - 2021
Math@CASE Outstanding Service Award: University of Missouri	2020 - 2021
Outstanding Mathematics Graduate Student: Texas A&M University - Corpus Christi	2016 - 2017

REFERENCES

Dr. Călin Chindriș, Professor	chindrisc@missouri.edu
Luiza DeSouza, Instructor and Algebra Coordinator	desouzal@missouri.edu
Kristina Hahn, Instructor and Finite Math Coordinator	kristina.hahn@missouri.edu
Dustin Belt, Assistant Teaching Professor and Director of Undergraduate Studies	beltd@missouri.edu