

Curriculum Vitae

Stephen Peña

1 Academic History

Texas Tech University, August 2016–Aug 2022:

Ph.D. student in Mathematics.

Angelo State University, August 2010–December 2015:

Bachelor of Arts in Mathematics.

2 Research Interests

Factorization algebras in perturbative quantum field theory

Categorical methods in pAQFT

Higher differential geometry and its applications to gauge theory, relativity, and gravitation

3 Publications

(with Lopamudra Roychoudhuri) *On Delay Variation for Internet Multimedia*, CRIUS Undergraduate Research Journal Vol. 3 (2015).

4 Seminar Talks

Spring 2021: *Factorization Algebras and pAQFT* (8 talks). Topology and Geometry seminar, Texas Tech University
Simplicial Sets and Model Categories I. Quantum Homotopy seminar, Texas Tech University

Fall 2020: *Introduction to Higher Topos Theory* (2 talks). Quantum Homotopy seminar, Texas Tech University

Fall 2019: *Introduction to Quantum Field Theory* (7 talks). Quantum Homotopy seminar, Texas Tech University

Spring 2017: *An Introduction to Topological Groups*. Logic-Topology seminar, Texas Tech University.

Fall 2017: *State-sum Invariants of Closed Surfaces from Finite Groups*. Logic-Topology seminar, Texas Tech University.

5 Awards

Best Research Poster, First Annual Undergraduate [Computer Science] Research Expo, University of Texas at Dallas.

6 Teaching Experience

Graduate Part-time Instructor, Texas Tech University

Fall 2017: Math 1320 (College Algebra)

Spring 2018: Math 1320 (College Algebra)

Summer 2018: Math 1320 (College Algebra) (Online)

Fall 2018: Math 1300 (Contemporary Math); recitation leader for Topology I (MATH 5324, graduate)

Spring 2019: Math 1300 (Contemporary Math)

Fall 2019: Math 3310 (Intro to Proofs)

Spring 2020: Math 2450 (Cal III)

Summer 2020: Math 2450- (Cal III), (Online)

Fall 2020: Math 2450 (Cal III), (Online)

Spring 2021: Math 1452 (Cal II), (Hybrid)

Summer 2021: Math 2450 (Cal III), (Online)

Fall 2021: Math 1451 (Cal I)