

Hunter Stufflebeam

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Abstract

I am a J.J. Sylvester Assistant Professor in mathematics at Johns Hopkins University. My primary interests lie in geometry and analysis — especially in geometric partial differential equations and geometric measure theory. I received my Ph.D. from the University of Pennsylvania in 2025 under the supervision of Davi Máximo, and I was previously an undergraduate at The University of Texas at Austin where my advisers were Francesco Maggi and Salvatore Stuvard.

Personal Information

- Citizenship: US Citizen
- Languages: English (native), Spanish (Intermediate).

Education and Employment

Johns Hopkins University, J.J. Sylvester Assistant Professor	Aug 2025 – current
• Mentor: Chikako Mese	
The University of Pennsylvania, PhD in Mathematics	Aug 2019 – May 2025
• Advisor: Davi Máximo	
• Dissertation Title: Almost-Rigidity and the Geometric Analysis of Lower Curvature Bounds	
The University of Texas at Austin, BS in Mathematics	Aug 2015 – May 2019
• Highest Honors with Special Departmental Honors in Mathematics. GPA: 4.0/4.0.	
• Advisors: Francesco Maggi and Salvatore Stuvard	
• Honors Thesis Title: Allard Type Regularity Theorems for Rectifiable Varifolds	

Academic Awards and Fellowships

Professor Joel Dean Excellence in Teaching Award, JHU	2025-2026
Graduate Fellow for Inclusive and Equitable Teaching, UPenn	Aug 2024 – May 2025
Good Teaching Award (Math 1080), UPenn	Spring 2024
J.A. Shohat Memorial Fellowship, UPenn	Aug 2020 – May 2021
Bob Williams Scholar, UT Austin	Spring 2019
Eva Woods Stevenson Unrestricted Endowed Presidential Scholarship, UT Austin	Spring 2018
College of Natural Sciences Book Award, UT Austin	Spring 2018
Distinguished College Scholar, UT Austin	Spring 2017, 2018, 2019

Publications and Preprints

Width Stability of Three-Manifolds	2026
Preprint available upon request.	
Almost-Rigidity and the Geometric Analysis of Lower Curvature Bounds (Ph.D. Thesis)	2025
Width Stability of Rotationally Symmetric Metrics	2024
Joint with Paul Sweeney Jr. ArXiv 2409.13646 . Published in <i>J. Geom. Anal. Volume 35, Issue 8, 2025</i> .	
Stability of Convex Spheres	2024
Joint with Davi Máximo . ArXiv 2312.13995 . Published in <i>Int. Math. Res. Not. Issue 1, Jan 2025</i> .	

Stability of Convex Disks

Jan 2023

ArXiv [2301.13130](#). Published in *Calc. Var. and PDEs* No. 244, 20, 2023.

Talks and Conferences

As Organizer:

AMS Special Session: [Geometric Inequalities, Convergence, and Scalar Curvature](#)) at the JMM in Chicago, IL.

Jan 2027

Gender Minorities in Topology and Related Areas Konference ([GeMTrak](#)) at U-Penn.

Apr 2024

As Invited Conference Speaker:

Joint Mathematics Meetings: Special Session on Recent Trends in Metric Geometry and Topology

Jan 2027

- Width Stability of Three Manifolds

Oberwolfach Workshop on Moduli Theory in Differential Geometry and Analysis

Jan 2027

Geometric Problems in PDEs at the CMS Winter Session in Montréal

Dec 2026

- Width Stability of Three Manifolds

Modern Techniques in Riemannian Geometry at the Instituto de Matemáticas at UNAM

Jul 2026

- Almost-Rigidity and the Volume Spectrum

AMS Eastern Sectional at Boston College: Special Session on Metric, Analytic, and Classical Methods in Differential Geometry

Mar 2026

- Almost-Rigidity and the Volume Spectrum

Workshop on Curvature and Global Shape at Universität Münster

Aug 2025

- Stability Theorems for Spheres

Convergence or Scalar Curvature (COSC) Workshop

July 2025

- Stability Theorems for Spheres

Joint Mathematics Meeting in Seattle: Special Session on Metric Geometry and Topology

Jan 2025

- Stability Theorems for Spheres

Temple Graduate Student Conference in Algebra, Geometry, and Topology

May 2024

- Stability of Convex Spheres, and Other Almost-Rigidity Problems

Temple Graduate Student Conference in Algebra, Geometry, and Topology

May 2023

- The Min-Oo Conjecture, Toponogov's Theorem, and Almost-Rigidity Problems

Brown Workshop on Differential Geometry

Mar 2023

- Stability of Convex Disks

As Invited Seminar Speaker:

Convergence or Scalar Curvature (COSC) Seminar

Apr 2026

- Almost-Rigidity and the Volume Spectrum

University of Chicago Geometry Seminar

Apr 2025

- Stability Theorems for Spheres

Johns Hopkins Geometry Seminar

Apr 2025

- Stability Theorems for Spheres

Michigan State Geometry Seminar	Mar 2025
• Stability Theorems for Spheres	
Rutgers Geometric Analysis Seminar	Dec 2024
• Stability Theorems for Spheres	
Lehigh Geometry Seminar	Nov 2024
• Stability Theorems for Spheres	
Convergence or Scalar Curvature (COSC) Seminar	Nov 2024
• Stability Theorems for Spheres	
NC State Geometry and Topology Seminar	Sep 2024
• Stability Theorems for Spheres	
CUNY Geometric Analysis Seminar	Mar 2023
• Stability of Convex Disks	
UPenn Geometry Seminar	Mar 2023
• Stability of Convex Disks	
Australian Geometric PDE Seminar	Oct 2022
• Stability of Convex Disks	

Teaching

Lecturer	Johns Hopkins Univ.
• AS 110.416 (Honors Real Analysis II)	Spring 2026
• AS 110.109 (Calculus II: For the Physical Sciences and Engineering)	Fall 2026
• AS.110.427 (The Calculus of Variations)	Spring 2026
• AS.110.211 (Honors Multivariable Calculus)	Spring 2026
• AS 110.109 (Calculus II: For the Physical Sciences and Engineering)	Fall 2025
Lecturer	Univ. of Penn.
• Math 2410 (Intro to PDEs)	Summer 2024
• Math 241 (Intro to PDEs)	Summer 2023
Graduate Teaching Assistant	Univ. of Penn.
• Math 1080 (Mathematics of Change Pt. II)	Fall 2024
• Math 1080 (Mathematics of Change Pt. II)	Spring 2024
• Math 4250 (Advanced PDEs)	Spring 2023
• Math 241 (Intro to PDEs)	Spring 2022
• Math 240E (Linear Algebra and ODEs for Engineers)	Fall 2021
• Math 609 (Graduate Real and Functional Analysis)	Spring 2021
• Math 240 (Linear Algebra and ODEs)	Fall 2020
Learning Assistant	UT Austin
• Undergraduate TA for <i>all</i> UT Austin calculus courses.	Fall 2018
Undergraduate Grader	UT Austin
• M361: Complex Analysis	Fall 2018
• M325K-H: Honors Discrete Math	Spring 2018
• M362K: Probability I	Fall 2017
Peer Led Undergraduate Study (PLUS Tutoring)	UT Austin
• M427J: Honors ODEs and Linear Algebra	Spring 2016

Service

Mentoring of Undergraduates

- Sabrina Jia, in Riemannian geometry (now a math PhD. student at Louisiana State Univ.)
- Thanh Tran, in differential topology (currently an undergraduate at Johns Hopkins Univ.)

Johns Hopkins Univ.

Spring 2026

Summer 2026

Mentoring in the Directed Reading Program (DRP).

- Falconer's Conjecture
- Riemannian Geometry and General Relativity
- Riemannian Geometry
- The Black-Scholes Equation
- Ergodic Theory and Economics
- Topics in Dynamical Systems

Univ. of Penn.

Fall 2024

Fall 2023

Spring 2022

Fall 2021

Spring 2021

Fall 2020

JHU Math Dept. Open Forum on AI Policy

- Chairperson, along with Zihui Zhao and Alvaro Belmonte.

Johns Hopkins Univ.

Fall 2026

Anonymous Journal Referee

- Quaestiones Mathematicae
- Mathematische Annalen

Organizer of the UPenn Graduate Math Pizza Seminar

2020-2021

UPenn Graduate Student "Buddy" Mentoring Program

Fall 2020

Departmental Talks

Graduate Pizza Seminar

- Primes, Irreducibility, and the Fundamental Group (a sneaky talk on Geometrization)
- Geometry at Penn, a talk for prospective students
- Soap Bubbles and Geometry, a talk for prospective students
- "(Dont Fear) The Reaper or: How I Learned to Stop Worrying (About the Topology) and Love the Geometry" (a curve shortening flow talk)
- A History of Soviet Mathematics

Univ. of Penn.

Apr 2024

Feb 2024

Feb 2023

Feb 2022

Nov 2019

"Secret" Geometry Seminar

- The Ricci Min-Oo Conjecture, and Possible Extensions

Univ. of Penn.

Oct 2021

Geometric Analysis Seminar

- The d_p Convergence and Almost-Rigidity

Univ. of Penn.

Oct 2021

Graduate Geometry Seminar

- Curvature Bounds and Geometric Stability
- Convergence of Tori with Almost Non-negative Scalar Curvature
- The Yamabe Problem
- The Isoperimetric Problem in Metric Spaces
- The Isoperimetric Inequality on a Minimal Submanifold of Euclidean Space

Univ. of Penn.

Oct 2021

Apr 2021

Feb 2021

Oct 2020

Sep 2019

Park City Math Institute: Experimental Math Lab

- The Courant Nodal Domain Theorem and the 2-Torus

Park City, UT

Jul 2018

Geometric Measure Theory Seminar

- Allard's Regularity Theorem

UT Austin

Mar 2019

UT Austin Math Club

- A Four Part Lecture Series on Differential Geometry and Topology

UT Austin

Feb 2019

- A Primer on Geometric Measure Theory and Variational Problems Dec 2018
- Dr. Levi Civita or: How I Learned to Stop Worrying and Love Torsion Free Connections. Apr 2018

Directed Reading Program Symposium

UT Austin

- The Fourier Multiplier Problem for the Ball Apr 2018
- Poking Fun at Surfaces, and How to Perturb your Manifolds Apr 2017
- Dr. Levi Civita or: How I Learned to Stop Worrying and Love Torsion Free Connections. Apr 2018

Other Activities

Principal Bass Trombonist

- University of Pennsylvania Symphony Orchestra ([PSO](#)) 2019-2025
- University of Texas at Austin: University Orchestra ([UTUO](#)) 2015-2019