Stephanie Mui

Contact Information

Georgia Institute of Technology
Department of Mathematics
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Research Interests

Convex geometry, Geometric analysis, Partial differential equations

Education

Courant Institute of Mathematical Sciences, New York University

Ph.D. in Mathematics, May 2023

- Dissertation Topic: The *Lp* Aleksandrov problem and the *Lp* dual Minkowski problem for negative p
- Advisor: Deane Yang and Gaoyong Zhang

George Mason University

M.S. in Mathematics, May 2017

- Thesis Topic: Nash-Kuiper Surfaces
- Advisor: Sean Lawton

B.A. in Mathematics, May 2016

- Summa cum laude

Affiliations

Courant Institute of Mathematical Sciences, New York University

Ph.D. student and TA, 2017 - 2023

Georgia Institute of Technology

Hale Visiting Assistant Professor, 2023 - present

Publications

S. Mui, *On the L^p dual Minkowski problem for $-1 < p < 0$,* submitted. (2023).

S. Mui, *On the L^p Aleksandrov problem for negative p,* Adv. Math. **408** (2022).

Talks

The L^p dual Minkowski problem: an overview and new results for $p < 0$, Seminar der Arbeitsgruppen Diskrete Mathematik/ Geometrie & Diskrete Geometrie, TU Berlin, (July 2023)

On the L^p dual Minkowski problem for absolutely continuous data, Convex Geometry - Analytic Aspects, Istituto Nazionale di Alta Matematica (INdAM). (June 2023)

On the L^p dual Minkowski problem and its critical cases, Yale Geometric Analysis and Applications Seminar, Yale University. (April 2023)

On the L^p dual Minkowski problem and its critical cases, Syracuse Analysis Seminar, Syracuse University. (April 2023)

On the L^p dual Minkowski problem for $-1 < p < 0$, AMS Southeastern Sectional Meeting: Special Session on High-dimensional Convexity and Probability, Georgia Tech. (March 2023)

On the L^p dual Minkowski problem for $-1 < p < 0$, Harmonic Analysis Methods in Geometric Tomography, ICERM. (September 2022)

On the L^p dual Minkowski problem for $-1 < p < 0$, Canadian Math Society Summer Meeting: Session on Convex geometry and Partial Differential Equations, Memorial University of Newfoundland. (June 2022)

On the L^p Aleksandrov problem for negative p, Workshop in Convexity and High-dimensional probability, Georgia Tech, Short talk. (May 2022)

On the L^p Aleksandrov problem for negative p, Online Asymptotic Geometric Analysis Seminar. (March 2022)

On the L^p Aleksandrov problem for negative p, Convex Geometry and its Applications, Oberwolfach Research Institute for Mathematics (MFO). (December 2021)

C^1 Isometric embedding of a flat torus in 3D Euclidean space and Visualization of the Nash-Kuiper Sphere, Geometry Labs United Conference, ICERM, Lightning talk and poster. (July 2020)

Isometric embedding of a flat torus in 3D Euclidean space, Undergraduate Mathematics Symposium, University of Illinois at Chicago. (October 2016)

Teaching Experience

Fall	2023	Instructor (Georgia Tech), Finite Mathematics
Fall	2022	Teaching Assistant (NYU), Analysis
Spring	2022	Teaching Assistant (NYU), Honors Analysis I and II
Fall	2021	Teaching Assistant (NYU), Analysis
Spring	2021	Teaching Assistant (NYU), Analysis
Spring	2017	Teaching Assistant (GMU), Calculus I

Service

2022+	Referee for Journal of Differential Geometry
2020–2021	Mentor for NYU Mathematics Master's Students for Aadya Bhatnagar and Zachary Brogie
2015–2017	Research Intern at the Mason Experimental Geometry Lab Volunteered for outreach activities hosted by lab

Honors and Awards

2023	Bella Manel Award Courant Institute of Mathematical Sciences (NYU)
2021	US Junior Oberwolfach Fellow Oberwolfach Research Institute for Mathematics (MFO)
2018–2020	Summer Opportunity Fellowship New York University Graduate School of Arts and Sciences
2017–2022	Henry MacCracken Fellowship New York University Graduate School of Arts and Sciences
2016	First Place AMS Menger Award Intel International Science and Engineering Fair