

Contact Information

Address: Department of Mathematics
Massachusetts Institute of Technology
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Education

2012–2017 **Ph.D. in Mathematics**, New York University, New York, U.S.
Adviser: Erwin Lutwak, Deane Yang, and Gaoyong Zhang
Thesis: Geometric measures, affine invariants,
and their characterizations
2007–2011 **B.S. in Mathematics**, Shanghai University, Shanghai, China

Research Interests

convex geometry, geometric analysis, partial differential equations

Employment

Fall 2018 – C.L.E. Moore Instructor
at Massachusetts Institute of Technology
Fall 2017 – Spring 2018 Assistant Professor (Contract Faculty)
at St. John's University
Summer 2017 Research Associates & Adjunct Assistant Professor
at New York University

Honors and Awards

- Silver Prize of Doctoral thesis for the 5th New World Mathematics Awards

Publications and Preprints

1. (with K. Böröczky, E. Lutwak, D. Yang, and G. Zhang) The Gauss image problem, *Communications on Pure and Applied Mathematics*, in press.
2. (with K. Böröczky, E. Lutwak, D. Yang, and G. Zhang) The dual Minkowski problem for symmetric convex bodies, *Adv. Math.*, 356:106805, 2019.

3. The L_p Aleksandrov problem for origin-symmetric polytopes, *Proc. Amer. Math. Soc.*, 147 (10): 4477-4492, 2019.
4. (with C. Chen, and Y. Huang) Smooth solutions to the L_p -dual Minkowski problem, *Math. Ann.*, 373 (3-4):953-976, 2019.
5. (with Y. Huang) On the L_p dual Minkowski problem, *Adv. Math.*, 332: 57-84, 2018.
6. Existence of solutions to the even dual Minkowski problem. *J. Differential Geom.*, 110 (3): 543-572, 2018.
7. The dual Minkowski problem for negative indices. *Calc. Var. Partial Differential Equations*, 56 (2):18, 2017.
8. On L_p -affine surface area and curvature measures. *Int. Math. Res. Not. IMRN*, (5): 1387–1423, 2016.
9. (with D. Xi) General affine invariances related to Mahler volume, *submitted*.

Invited Talks

- 2019 Jun. International Congress of Chinese Mathematicians, 45-min talk, The dual Minkowski problem for o -symmetric convex bodies.
- 2019 Jun. Fudan University, The dual Minkowski problem for o -symmetric convex bodies.
- 2019 Jun. Tongji University, The dual Minkowski problem for o -symmetric convex bodies.
- 2019 Jun. Shanghai University, The dual Minkowski problem for o -symmetric convex bodies.
- 2019 Jun. Hunan University, lecture series: An Introduction to Minkowski-type problems in convex geometry.
- 2019 May. AIM workshop, The even dual Minkowski problem for integer indices.
- 2019 Jan. University of Connecticut, PDE and Differential Geometry Seminar: The Gauss image problem.

- 2018 Mar. AMS special session at Ohio State University, The Aleksandrov problem and its recent development.
- 2017 Dec. St. Johns University, Minkowski problems and Monge-Ampère type equations.
- 2017 Sept. CUNY Graduate Center, Geometric Analysis Seminar: Minkowski-type problems in convex geometry.
- 2017 Feb. Case Western Reserve University, Analysis & Probability Seminar: On the dual Minkowski problem.
- 2017 Feb. Kent State University, Measure Theory Seminar: The dual Minkowski problem and its solution.
- 2015 Sep. Oaxaca, Mexico (CMO workshop): On L_p -affine surface area and curvature measures.

Courses Taught

- at MIT
 - as Recitation Leader: 18.01A/18.02A Calculus, 18.03 Differential Equation
 - as Instructor: 18.100Q Communication Intensive Real Analysis
- at St. John's University
 - as Instructor: Pharmacy Statistics, Business Calculus, Pharmacy Calculus
- at New York University
 - as Instructor: Engineering Calculus II, Calculus III
 - as Recitation Leader: graduate Linear Algebra, undergraduate and graduate Real Analysis