Contact Information

Address: Department of Mathematics
Massachusetts Institute of Technology
77 Massachusetts Avenue
Cambridge, MA 02139
E-mail: yimingzh@mit.edu
URL: yimingzhaomath.github.io

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

2018.9 – C.L.E. Moore Instructor
at Massachusetts Institute of Technology

2017.9 – 2017.6 Assistant Professor (Contract Faculty)
at St. John's University

2017.7 – 2017.8 Research Associates & Adjunct Professor
at New York University

Publications and Preprints

- Peer-reviewed:

1. (with Y. Huang) On the L_p dual Minkowski problem, *Adv. Math.*, in press.
2. Existence of solutions to the even dual Minkowski problem. *J. Differential Geom.*, in press.
3. The dual Minkowski problem for negative indices. *Calc. Var. Partial Differential Equations*, 56 (2):18, 2017.

4. On L_p-affine surface area and curvature measures. *Int. Math. Res. Not. IMRN*, (5): 1387–1423, 2016.

- Preprints:

1. The L_p Aleksandrov problem for origin-symmetric polytopes, *preprint*.
2. (with C. Chen, and Y. Huang) Smooth solutions to the L_p-dual Minkowski problem, *submitted*.
3. (with K. Böröczky, E. Lutwak, D. Yang, and G. Zhang) The dual Minkowski problem for symmetric convex bodies, *preprint*.

Invited Talks

- 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

- Engineering Calculus II
- Calculus III
- College Algebra with Applications (for business majors)
- Statistical Applications for Pharmacy and Applied Health
- Business Calculus

- Pharmacy Calculus
- Recitation for graduate Linear Algebra
- Recitation for undergraduate and graduate Real Analysis