Shouda Wang

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Education

2021 – 2026	**Princeton University**, PhD, Thesis advisor: Ramon van Handel.
2018 – 2021	**Ecole Polytechnique**, *Cycle Ingénieur Polytechnicien*, Master's thesis advisor: Guillaume Barraquand.
2014 – 2018	**University of Science and Technology of China (USTC)**, *Special Class for the Gifted Young*, Senior thesis advisor: Shiping Liu.

Publications and preprints

- (joint with Daoji Huang, June Huh, Mateusz Michałek, Botong Wang), **Realizations of Homology Classes and Projection Areas**, *preprint*.
- (joint with Guillaume Barraquand), **An identity in distribution between full and half-space log-gamma polymers**, *IMRN*, 2023.
- (joint with Jiachen T. Wang, Saeed Mahloujifar, Ruoxi Jia, Prateek Mittal), **Renyi Differential Privacy of Propose-Test-Release and Applications to Private and Robust Machine Learning**, *NeurIPS*, 2022.
- (joint with Weijie Zheng and Benjamin Doerr), **Choosing the right algorithm with hints from complexity theory**, *International Joint Conferences on Artificial Intelligence*, 2021.

Teaching Experience

Spring 2024	**Multivariable calculus for economics**, *Princeton University*.
Fall 2024	**Multivariable calculus for economics**, *Princeton University*.
Spring 2024	**High dimensional probability**, *Princeton University*.
Spring 2023	**High dimensional probability**, *Princeton University*.
Spring 2018	**Topology**, *University of Science and Technology of China*.
Fall 2017	**Differential Geometry**, *University of Science and Technology of China*.

Conferences and seminars

- Interactions between convex geometry and spectral analysis, Montréal, July 2025
- Invited talk, PACM colloquium, Princeton, February 2025
- Invited talk, Convex geometry in Florence, Florence, June 2024
- Workshop in Convexity and High-Dimensional Probability, Atlanta, May 2022

Honors & Awards

- Meilleur stage de recherche en mathématique et économie ($\approx$ best student paper award), Ecole Polytechnique & Académie des sciences, 2021
- Meilleur Projet Scientifique Collectif, Ecole Polytechnique, 2020
- Best teaching assistant award, USTC, 2018
- Outstanding student award, USTC Alumni Foundation, 2014, 2015, 2016, 2017

Language

- Chinese (Native), English (Fluent), French (Fluent)