

# Haibo Liu

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📍 School of Engineering, Westlake University, Hangzhou 310030, P.R. China.

## Education

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### Tsinghua University

Beijing, China (2019/8-2025/6)

Ph.D. in Mathematics. Advised by Prof. Junqing Chen

### Lanzhou University

Lanzhou, China (2015/8-2019/6)

B.S. in Mathematics and Applied Mathematics

### Georgia State University

Atlanta, USA (2017/6-2017/9)

Exchange in the Department of Mathematics and Statistics

## Employment

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Research Assistant, Westlake University

Hangzhou, China (2025/7-now)

## Research Interests

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My research interests cover Graphics, 3D Computer Vision and Inverse Problems. More specifically:

- 3D Generation
- Inverse Problems (Shape Optimization)

## Publications

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- DiLO: Decoupling Generative Priors and Neural Operators via Diffusion Latent Optimization for Inverse Problems, Preprint, (2026).
- Generative Prior-Guided Neural Interface Reconstruction for 3D Electrical Impedance Tomography, Journal of Computational Physics, (2026).
- KeyframeFace: From Text to Expressive Facial Keyframes, Preprint, (2025).
- Solving inverse obstacle scattering problem with latent surface representations, Inverse Problems, (2024).
- An Alternating Direction Method of Multipliers for Inverse Lithography Problem, Numerical Mathematics: Theory, Methods and Applications, 16 (2023).

## Awards and Honors

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- Outstanding Doctoral Dissertation of Tsinghua University (2025)
- National Endeavor Scholarship, Lanzhou University of China (2016)
- The 9th National College Math Competition National Second Prize, China (2018)

## Scientific Events

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- Co-organizer: "O-1 Seminar", Tsinghua University (July 2022)

## Teaching

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- Associate teaching experience: Probability theory and mathematical statistics (Autumn 2020)
- Associate teaching experience: Calculus (Spring 2020)
- Associate teaching experience: High numerical analysis (Autumn 2019)

## Seminar and Conference Talks

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- The 631st Doctoral Student Forum of Tsinghua University (April 2024).