# LING WANG

Ph.D. <u>m</u> School of Mathematical Science, Peking University

No. 5 Yiheyuan Road, Haidian District, Beijing, P.R.China 100871

#### PERSONAL INFORMATION

Gender Male Citizenship Chinese Citizen

**Date of Birth** July 18, 1998 **Marital status** Single

Place of Birth Chongqing, China

#### RESEARCH INTERESTS

## Geometric Analysis & Nonlinear PDEs, especially Monge-Ampère type equations

#### **POSITIONS**

## Department of Decision Sciences and BIDSA, Bocconi University

Milan, Italy

Postdoctoral Fellow

2025.9 - 2027.8

• Supervisor: Prof. Antonio De Rosa

#### **EDUCATION**

# School of Mathematical Science, Peking University

Beijing, China

Ph.D. in Pure Mathematics

2020.9 - 2025.6

- Thesis: Monge-Ampère type fourth-order equations and applications
- Supervisor: Prof. Bin Zhou

#### Beijing International Center for Mathematical Research, Peking University

Beijing, China

Visiting student, Pure Mathematics

2020.2 - 2020.6

## School of Mathematical Science, Beijing Normal University

Beijing, China

B.S. in Mathematics and Applied Mathematics

2016.9 - 2020.6

- Thesis: A Study on the Depth Dependence of Inclusions in Inverse Problems
- Supervisor: Prof. Haigang Li

#### PUBLICATIONS AND PREPRINTS

- [10] Guoqing Cui, **Ling Wang**, Bin Zhou. Potential and Hölder estimates for the linearized Monge-Ampère equation. Preprint.
- [9] Ling Wang, Bin Zhou. The Guillemin boundary value problem for the Abreu equation. Preprint.
- [8] Wenkui Du, Ling Wang, Yang Yang. Flat level sets of Allen-Cahn equation in half-space. Preprint.
- [7] **Ling Wang**, Bin Zhou. The partial Legendre transform in Monge-Ampère equations. *Surveys in Geometric Analysis* 2024.
- [6] **Ling Wang**. Interior Hölder regularity of the linearized Monge-Ampère equation. *Calculus of Variations and Partial Differential Equations*, **64** (2025), no. 1, Paper No. 17.
- [5] **Ling Wang**, Bin Zhou.  $C^{1,\alpha}$  regularity of variational problems with a convexity constraint. Preprint.
- [4] **Ling Wang**, Bin Zhou. Liouville theorems for a class of degenerate or singular Monge-Ampère equations. *Journal of Geometric Analysis*, **34** (2024), no. 11, Paper No. 352.
- [3] Young Ho Kim, Nam Quang Le, **Ling Wang**, Bin Zhou. Singular Abreu equations and linearized Monge-Ampère equations with drifts. To appear in *Journal of the European Mathematical Society*.

- [2] **Ling Wang**, Bin Zhou. Interior estimates for Monge-Ampère type fourth order equations. *Revista Matemática Iberoamericana*, **39** (2023), no. 5, 1895–1923.
- [1] Haigang Li, Jenn-Nan Wang, **Ling Wang**. Refined stability estimates in electrical impedance tomography with multi-layer structure. *Inverse Problems and Imaging*, **16** (2022), no. 1, 229–249.

#### **AWARDS & HONORS**

• Outstanding Graduates, Peking University	2025
Outstanding Doctoral Dissertation, Peking University	
<ul> <li>China National Scholarship, Ministry of Education of the People's Republic of China Presidential Scholarship, Peking University</li> </ul>	2024
Outstanding Research Award, Peking University	
<ul> <li>Presidential Scholarship, Peking University</li> <li>Merit Student, Peking University</li> </ul>	2023
• Exceptional Award for Academic Innovation, Peking University	2022
<ul> <li>Outstanding Graduates, Beijing Normal University</li> <li>The First Prize Scholarship, Beijing Normal University</li> </ul>	2020

#### **CONFERENCE TALKS**

3. **Title**: *Monge-Ampère type equations in two dimensions*June 29-July 5, 2025

Workshop on Geometric Analysis 2025 (30 minutes), Research Center for Mathematics and Interdisciplinary Sciences of Shandong University, Qingdao, China

Title: Flat level sets of Allen-Cahn equation in half-space
 March 15, 2025
 Workshop on Geometric Analysis and Ricci Flow 2025, Institute for Theoretical Sciences of Westlake University, Hangzhou, China

Title: Singular Abreu equations and linearized Monge-Ampère equations with drifts
 July 21-27, 2024
 Workshop on Geometric Analysis 2024 (30 minutes), School of Mathematical Sciences of Inner Mongolia University, Hohhot, China

## **SEMINAR & COLLOQUIUM TALKS**

7. **Title**: Bernstein-type theorems for geometric PDEs

Geometric Analysis seminar, Institute for Theoretical Sciences of Westlake University, Hangzhou, China

6. **Title**: Interior estimates for the Monae-Ampère type fourth-order equations

May 6, 2025

6. **Title**: *Interior estimates for the Monge-Ampère type fourth-order equations* May 6, 2025 Mathematics Colloquium, School of Mathematical Sciences of Nankai University, Tianjin, China

5. **Title**: A revisit to the De Giorgi conjecture: Savin's proof and applications

April 21, 2025

Geometry&Topology seminar, Institute of Mathematical Sciences of ShanghaiTech University, Shanghai, China

4. **Title**: Partial Legendre transform: two-dimensional and higher-dimensional cases April 17, 2025 Geometry&Analysis seminar, School of Mathematical Sciences of Shanghai Jiao Tong University, Shanghai, China

3. **Title**: *Bernstein-type theorems for geometric PDEs*Mathematics Colloquium, School of Mathematical Sciences of Fudan University, Shanghai, China

2. **Title**: *Interior estimates for the Monge-Ampère type fourth order equations* March 24, 2024 Ph.D. Mathematics Forum (13 minutes), School of Mathematics and Statistics of Wuhan University, Wuhan, China

Title: A revisit to affine Bernstein problem
 Geometric PDE seminar, Academy of Mathematics and Systems Science of the Chinese Academy of Sciences, Beijing, China

## TEACHING EXPERIENCE

#### **Peking University** Teaching assistant Spring 2024 • Advanced math B • Mathematical analysis III Fall 2023 • Mathematical analysis II Spring 2023 • Mathematical analysis I Fall 2022 • Arithmetic of elliptic curves Spring 2022 Diophantine approximation • Mathematical analysis I Fall 2021 • Functional analysis Spring 2021 • Advanced math C Fall 2020

## **ACADEMIC SERVICES**

Referee for several journals including: Pure and Applied Mathematics Quarterly