LING WANG

Postdoc <u>m</u> Department of Decision Sciences and BIDSA, Bocconi University ling.wang@unibocconi.it & lwmath@foxmail.com https://lwmath.github.io/

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

CONFERENCE TALKS

3. **Title**: *Monge-Ampère type equations in two dimensions*Une 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 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

1. **Title**: A revisit to affine Bernstein problem

March 30, 2022

Geometric PDE seminar, Academy of Mathematics and Systems Science of the Chinese Academy of Sciences, Beijing, China

TEACHING EXPERIENCE

Peking University

Teaching assistant

 Advanced math B 	Spring 2024
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