Wei Wang

Curriculum Vitae

School of Mathematical Sciences
Peking University
Yiheyuan Road 5
Beijing, P. R. China, 100871
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Education

Sept. 2022–Present **Ph.D. in Theoretical Mathematics**, *Peking University*, Beijing, P. R. China
○ Advisor: Prof. Zhifei Zhang

June–Sept. 2021 **Summer Research Program**, *The Hong Kong University of Science and Technology*, Hong Kong, P. R. China
○ Advisor: Prof. Tianling Jin
○ Topics: Properties of regional fractional Laplacian operators

Sept. 2018–June 2022 **B.S. in Mathematics and Applied Mathematics**, *Zhejiang University*, Hangzhou, Zhejiang, P. R. China
○ Advisor: Prof. Ting Zhang
○ Thesis Title: Homogenization Problem of Second Order Elliptic Systems with Lower Order Terms

Research Interests

Calculus of variations, geometric measure theory, elliptic equations, and parabolic equations

Publications

[1] H. Fu, W. Wang, K. Wu, and Z. Zhang, Stratification and rectifiability of harmonic map flows via tangent measures, *arXiv preprint arXiv: 2504.14880*.

[2] R.L.Frank, T. Jin, and W. Wang, On the sharp constants in the regional fractional Sobolev inequalities, *Partial Differential Equations and Applications*, **6** (2025), 1-20.

[3] W. Wang and Z. Zhang, Fine structure of rupture set for semilinear elliptic equations with singular nonlinearity, *arXiv preprint arXiv: 2411.16048*, (2024).

[4] H. Fu, W. Wang, and Z. Zhang, Quantitative stratification and sharp regularity estimates for supercritical semilinear elliptic equations, *arXiv preprint arXiv: 2408.06726*, (2024).

[5] W. Wang and Z. Zhang, Landau-de Gennes model with sextic potentials: asymptotic behavior of minimizers, *arXiv preprint arXiv: 2404.00677*, (2024).

[6] W. Wang, Uniform estimates of resolvents in homogenization theory of elliptic systems, *Journal of Differential Equations*, **370** (2023), 1-65.

[7] W. Wang and T. Zhang, Homogenization theory of elliptic systems with lower order terms in dimension two, *Communications on Pure and Applied Analysis*, **22** (2023), 787-824.

Honors and Awards

Apr. 2024 **3rd Prize, Graduate Research Exhibition**, *Peking University*, Beijing, PRC

Oct. 2023 **Excellent Mathematics Graduate Student**, *Peking University*, Beijing, PRC

Aug. 2022 **Nomination Award, ICCM Creative Undergraduate Thesis**, *Southeast University*, Nanjing, Jiangsu, PRC

June 2022 **Outstanding Graduate Student**, *Zhejiang University*, Hangzhou, Zhejiang, PRC

June 2022 **Honored Degree, Chu Kochen College**, *Zhejiang University*, Hangzhou, Zheiang, PRC

Talks and Presentations of the Research

Apr. 2025 **Graduate Research Exhibition**, *Peking University*, Beijing, PRC

Dec. 2024 **PDE Seminar**, *Peking University*, Beijing, PRC

Apr. 2024	**Graduate Research Exhibition**, *Peking University*, Beijing, PRC
Aug. 2022	**ICCM Creative Undergraduate Thesis**, *Southeast University*, Nanjing, Jiangsu, PRC

Teaching and Teaching Assistant Experience

PKU	
Spring 2025	TA, Advanced Mathematics (B) (II)
Fall 2024	TA, Advanced Mathematics (A) (I)
Spring 2024	TA, Advanced Mathematics (B) (II)
Fall 2023	TA, Harmonic Analysis
Spring 2023	TA, Functional Analysis (I)
Fall 2022	TA, Advanced Mathematics (C) (I)
ZJU	
Spring 2022	TA, Mathematical Analysis (II), Zhejiang University
Fall 2021	TA, Mathematical Analysis (I), Zhejiang University