Wei WANG

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https://luisyanka.github.io/WeiWANGmath.github.io/

Education

PhD in Mathematics
Peking University, Beijing, China
Expected Graduation: June 2027
Advisor: Prof. Zhifei Zhang

Summer Research Program
The Hong Kong University of Science and Technology
June 2021- September 2021
Advisor: Assoc. Prof. Tianling Jin

Bachelor of Mathematics and Applied Mathematics
Zhejiang University, Hangzhou, Zhejiang, China
September 2018-June 2022
Advisor: Prof. Zhifei Zhang
Thesis: Homogenization Problem of Second-order Elliptic Systems with Lower Order Terms

Research Interests

Geometric Variational problems, liquid crystal models, harmonic maps, elliptic equations, parabolic equations, and harmonic heat flows.

Publications and Preprints

1. H. Fu, W. Wang, and Z. Zhang, Quantitative stratification and sharp regularity estimates for supercritical semilinear elliptic equations, *arXiv preprint arXiv:2404.00677* (2024).

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

3. R.L. Frank, T. Jin, and W. Wang, On the sharp constants in the regional fractional Sobolev inequalities, *arXiv preprint arXiv:2403.00357*, (2024).

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

5. W. Wang and T. Zhang, Homogenization theory of elliptic system with lower order terms for dimension two, *Communications on Pure and Applied Analysis*, **22** (2023), 787-824.

Honors and Awards

Oct. 2023 Top notch Mathematics Graduate Program Awarding Institution, Peking University

Aug. 2022 Excellent Award of ICCM Creative Undergraduate Thesis

June. 2022 Outstanding Graduate Student of Zhejiang University

June. 2022 Honored Degree of Chu Kochen College, Zhejiang University

Seminars and Conferences Organized

Fall 2022 Reading Seminar on Elliptic Free Boundary Problems, Peking University

Spring 2023 Reading Seminar on the Paper "Rectifiable-Reifenberg and the Regularity of Stationary and Minimizing Harmonic Maps" by Aaron Naber and Daniele Valtorta, Peking University

Talks

Apr. 2024 Graduate Research Exhibition, Theoretic Mathematics, Peking University

Aug. 2022 ICCM Creative Undergraduate Thesis, Southeast University

Teaching

Fall 2024 Advanced Mathematics (A) (I), Teaching Assistant. Lecturer: Assoc. Prof. Jinbiao Wu

Spring 2024 Advanced Mathematics (B) (II), Teaching Assistant. Lecturer: Prof. Xufeng Liu

Fall 2023 Harmonic Analysis, Teaching Assistant, Lecturer: Asst. Prof. Dongyi Wei

Spring 2023 Functional Analysis (1), Teaching Assistant, Lecturer: Prof. Zhifei Zhang.

Fall 2022 Advanced Mathematics (C) (I), Teaching Assistant. Lecturer: Prof. Zhengdong Wang