XIAOKANG WANG

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EDUCATION

University of California, Irvine, USA
Ph.D. in mathematics. *Sep 2020 - Jun 2026 (expected)*
Advisor: Jeffrey Viaclovsky. Area: Geometric Analysis.

- GPA: 4.00/4.00

University of California, Berkeley, USA *Sep 2019 - Jan 2020*
International student

Southern University of Science and Technology, China *Sep 2016 - Jun 2020*
B.S. in mathematics and applied mathematics

- GPA: 3.82/4.00

RESEARCH INTEREST

My research interest is to apply PDE method to understand geometry and topology. More specifically, I am interesting on the moduli spaces of critical metrics and geometric flows. These metrics include locally conformally flat metrics, Yamabe metrics, non-Kähler Hermitian metrics, and hyperbolic type metrics. The tools I use to understand these structures include conformal deformation, collapsing theory of Cheeger-Fukaya-Gromov, nonlinear PDE, and generalized curvature flows with surgeries.

PAPERS AND PREPRINT

- Collapsing Yamabe metrics *Under Review*
- α-Ricci flow on torus (With Yifan Guo) *Under Review*
- α- Ricci flow and Geometric Application I: Analytic Aspect (with Anna Cusenza, Yifan Guo, Kuan-Hui Lee, and Michael Womack) *Under Review*
- Pluriclosed flow on Oeljeklaus-Toma manifolds (with Jeff Streets) *Under Review*
- On the structure of locally conformally flat orbifolds and ALE metrics *Under Review*
- Machine Learning and LLM-Boost Symbolic Regression for Predicting Q-Gonality of Modular Curves (with X.Zhuang, Y.Yao, P.Hsu, P.Qi) *ICML, AI4MATH, 2025*

TEACHING

Teaching Assistant, **University of California, Irvine** *Sep 2021 - Now*

- Fall 2021 Math 2A (Calculus I)
- Fall 2021 Math 2B (Calculus II)
- Fall 2024 Math 2D (Multivaiable Calculus)
- Winter 2025 Math 134A (Fixed Income)
- Winter 2025 Math 134B (Financial Derivative)
- Spring 2025 Math 9 (Intro to Numerical Analysis and Programming)
- Summer 2025 Math 105A (Numerical Analysis)
- Summer 2025 Math 105B (Numerical Analysis)
- Fall 2025 Math 9 (Intro to Numerical Analysis and Programming)

Graduate Student Researcher, **University of California, Irvine** *Jan 2022 - Sep 2024*

AWARDS AND HONORS

Outsanding Student at SUSTech *2016-2020*