

Xumin Jiang

CONTACT INFORMATION	School of Science Great Bay University Songshan Lake Campus, Dongguan, Guangdong Province, China 523000	(+86)0769-22898702 xjiang@gbu.edu.cn yzxumin.github.io
RESEARCH INTERESTS	Differential geometry, analysis of partial differential equations,	
EDUCATION	University of Notre Dame Ph.D. in Mathematics, May 2016 • Advisor: Qing Han and Karsten Grove	
	Nanjing University Ph. D. candidate in mathematics, Sep 2008 - Jun 2011 • Advisor: Gang Tian B.S. in computer science, Jun 2008	
EMPLOYMENT	Great Bay University Associate Professor, School of Science, Nov 2025 - Present Assistant Professor, School of Science, Jul 2024 - Nov 2025	
	Fordham University Lecturer, Department of Mathematics, Sep 2023 - Jun 2024 Peter M. Curran Visiting Assistant Professor, Department of Mathematics, Aug 2019 - Aug 2023	
	Rutgers University Hill Assistant Professor, Department of Mathematics, Rutgers University, Sep 2016 - Jul 2019.	
PUBLICATIONS	1. A continuous cusp closing process for negative Kähler-Einstein metrics, with X. Fu and H.-J. Hein, <i>Geom. Func. Anal.</i> (2025), https://doi.org/10.1007/s00039-025-00708-y . 2. The singular sets of degenerate and nonlocal elliptic equations on Poincaré-Einstein manifolds, with Y. Sire and R. Zhang, <i>J. Eur. Math. Soc.</i> (2025), https://doi.org/10.4171/JEMS/1740 . 3. Asymptotics of Kähler-Einstein metrics on complex hyperbolic cusps, with X. Fu and H.-J. Hein, <i>Calc. Val. P. D. E.</i> (2024), https://doi.org/10.1007/s00526-023-02613-4 4. The Loewner-Nirenberg Problem in cones, with Q. Han and W. Shen, <i>J. Funct. Anal.</i> , Vol 287, Issue 8 (2024), 110566. 5. Boundary expansion for the Loewner-Nirenberg problem in domains with conic singularities, <i>J. Funct. Anal.</i> 281 (2021), no. 7, 109122. 35 (58)	

6. Free-boundary regularity on the focusing problem for the Q_k Curvature Flow with flat sides I, with Ling Xiao,
J. Funct. Anal. 280 (2021), no. 2, 108792, 37 pp. 53E10
7. Asymptotic expansions of complete Kahler-Einstein metrics with finite volume on quasi-projective manifolds, with Yalong Shi,
Sci. China Math. 65 (2022), no. 9, 1953-1974
8. Optimal regularity of constant curvature graphs in Hyperbolic space, with L. Xiao,
Calc. Var. P.D.E., 58:133 (2019)
9. Isometric embedding with nonnegative Gauss curvature under the graph setting,
Discrete Contin. Dyn. Syst. 39 (2019), no. 6, 3463-3477.
10. Asymptotics and convergence for the complex Monge-Ampère equation, with Q. Han,
Accepted at Annals of PDE. *Arxiv preprint* <https://arxiv.org/abs/1806.05371>.
11. Boundary regularity of minimal graphs in the hyperbolic space, with Q. Han,
Journal für die reine und angewandte Mathematik (2023),
<https://doi.org/10.1515/crelle-2023-0040>
12. The convergence of boundary expansions and the analyticity of minimal surfaces in the hyperbolic space, with Q. Han,
Submitted. *Arxiv preprint* <https://arxiv.org/abs/1801.08348>.
13. Boundary expansions for minimal graphs in the hyperbolic space, Thesis (Ph.D.), University of Notre Dame (2016).

CONFERENCE
TALKS

Asymptotics of Kähler-Einstein metrics on complex hyperbolic cusps, Union College Math Conference - Session on Differential Geometry and Geometric Analysis , Union College (Jun 2022)

The Loewner-Nirenberg problem in domains with conic singularities, AMS Sectional Meeting, University of Connecticut Hartford (Apr 2019)

Boundary expansions for minimal graphs in the hyperbolic space, AMS Sectional Meeting, Michigan State University (Mar 2015)

Boundary expansion for the complex Mönge-Ampère equation, Geometric Analysis Seminar, School of Mathematical Sciences, Xiamen Univeristy (May 2015)

Boundary expansion for Kähler Einstein metrics in the pseudoconvex domain, International Workshop On Conformal Geometry and Geometric PDE, Beijing International Center for Mathematical Research, Peking University (Jun 2015)

INVITED TALKS

Kähler-Einstein metrics on complex hyperbolic cusps with a continuous cusp closing process, Differential Geometry, Topology, and special structures Seminar, City University of New York (Oct 2022)

Kähler-Einstein metrics on complex hyperbolic cusps, Nonlinear Analysis Seminar, Rutgers University (Oct 2021)

Asymptotic behavior of Kähler-Einstein metrics with isolated log canonical singularities, Geometric Seminar, Stony Brook University (Apr 2020)

Asymptotic expansion of quasi-projective KE metrics, Purdue Geometry/Geometric Analysis Seminar, Purdue University (Apr 2019)

Minimal graphs in the hyperbolic space, Geometric Analysis Seminar, City University of New York (Oct 2018)

The Loewner-Nirenberg problem in domains with conic singularities, Analysis and Partial Differential Equations Seminar, Johns Hopkins University (Sep 2018)

Boundary expansions of constant curvature graphs in the hyperbolic space, Invited talk at College of Mathematics, Beijing Normal University, Beijing (Aug 2017)

The linearization of the complex M\"{o}ng\'{e}-Amp\`{e}re equation and the tangential estimates, Lectures on Geometric PDEs, Beijing International Center for Mathematical Research, Peking University (Jun 2015)

Boundary expansion for the complex M\"{o}ng\'{e}-Amp\`{e}re equation, Invited talk at College of Mathematics, Capital Normal University, Beijing (Jun 2015)

TEACHING
EXPERIENCE

Great Bay University

Fall 2025 Mathematical Analysis, Small Class Section

Fordham University

Spring	2024	Math 2006 Linear algebra I
Spring	2024	Math 1203 Applied Calculus I (3 sessions)
Fall	2023	Math 1700 Math Modeling
Fall	2023	Math 1108 Math for Business: Finite (2 sessions)
Fall	2023	Math 1207 Calculus II
Spring	2023	Math 1207 Calculus II (2 sessions)
Fall	2022	Math 1206 Calculus I (2 sessions)
Spring	2022	Math 1207 Calculus II (2 sessions)
Fall	2021	Math 1206 Calculus I (2 sessions)
Spring	2021	Math 1207 Calculus II
Fall	2020	Math 1108 Math for Business: Finite (2 sessions)
Fall	2020	Math 2005 Multivariable Calculus II
Spring	2020	Math 1207 Calculus II (2 sessions)
Fall	2019	Math 1100 Finite Mathematics
Fall	2019	Math 1206 Calculus I

Rutgers University

Spring	2019	Math 350 Linear algebra
Fall	2018	Math 151 Calculus I for Mathematical and Physical Sciences
Fall	2018	Math 152 Calculus II for Mathematical and Physical Sciences
Spring	2018	Math 151 Calculus I for Mathematical and Physical Sciences
Fall	2017	Math 252 Elementary Differential Equations,
Fall	2017	Math 251 Multivariable Calculus
Spring	2017	Math 350 Linear Algebra
Spring	2017	Math 152 Calculus II for Mathematical and Physical Sciences
Fall	2016	Math 151 Calculus I for Mathematical and Physical Sciences

University of Notre Dame

Fall 2015 Math 10350 Calculus A

PROFESSIONAL
SERVICE

Fordham University

Spring 2020 Co-coordinator, Math 1108, Math for Business: Finite
Fall 2020 Co-coordinator, Math 1108, Math for Business: Finite

HONORS AND
AWARDS

University of Notre Dame

Spring 2016 Sady Prize for the Best Dissertation in Mathematics

Fordham University

Spring 2020 Fordham A&S Deans' Challenge Grant, Grant Leader: Melkana

Fall 2020 Brakalova

Fall 2020 Fordham A&S Deans' Challenge Grant, Grant Leader: Melkana
Brakalova