Jiayin Pan

CONTACT
INFORMATION

The Fields Institute
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Toronto, Ontario
M5T 3J1, Canada

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RESEARCH
INTEREST

Riemannian geometry, Ricci curvature and topology, Gromov-Hausdorff convergence.

EMPLOYMENT

July 2021 - June 2022
Postdoctoral Fellowship, The Fields Institute for Research in Mathematical Sciences, Toronto, ON, Canada.

July 2018 - June 2021
Visiting Assistant Professor, University of California, Santa Barbara, CA, USA.
Mentor: Guofang Wei

EDUCATION

September 2012 - May 2018
Ph.D. in Mathematics, Rutgers University, New Brunswick, NJ, USA.
Advisor: Xiaochun Rong

September 2008 - May 2012
B.S. in Mathematics, Shanghai Jiao Tong University, China.

PUBLICATIONS
& PREPRINTS

Nonnegative Ricci curvature, stability at infinity and finite generation of fundamental groups. Geometry & Topology 23-6 (2019), 3203-3231. DOI 10.2140/gt.2019.23.3203

A proof of Milnor conjecture in dimension 3. Journal für die Reine und Angewandte Mathematik 758 (2020), 253-260. DOI 10.1515/crelle-2017-0057

On the escape rate of geodesic loops in an open manifold with nonnegative Ricci curvature. Geometry & Topology 25 (2021), 1059-1085. DOI: 10.2140/gt.2021.25.1059

Semi-local simple connectedness of non-collapsing Ricci limit spaces (with Guofang Wei). arXiv:1904.06877, to appear in Journal of the European Mathematical Society.

Some topological results of Ricci limit spaces (with Jikang Wang). arXiv:2103.11344, to appear in Transactions of the American Mathematical Society.

Universal covers of Ricci limit and RCD spaces (with Guofang Wei). Differential Geometry in the Large, London Mathematical Society Lecture Note Series (463), Cambridge University Press, 2020, Page 352-372.

The fundamental groups of open manifolds with nonnegative Ricci curvature. SIGMA 16 (2020), 078, 16 pages. DOI 10.3842/SIGMA.2020.078

Ricci curvature and isometric actions with scaling nonvanishing property (with Xiaochun Rong). arXiv:1808.02329

Nonnegative Ricci curvature, almost stability at infinity, and structure of fundamental groups. arXiv:1809.10220

Nonnegative Ricci curvature and escape rate gap. arXiv:2009.00226

Examples of Ricci limit spaces with non-integer Hausdorff dimension (with Guofang Wei). arXiv:2106.03967

AWARDS	Fields Postdoctoral Fellowship, 7/1/2021 to 6/30/2022
	AMS Simons Travel Grant, 7/1/2019 to 6/30/2021
	Excellence Fellowship for Dissertation Work, Rutgers University, Fall 2017
ACADEMIC ACTIVITIES	Referee for Proceedings of the American Mathematical Society
	Referee for Advances in Mathematics
	Referee for International Mathematics Research Notices
	Referee for Special Issue of SIGMA on Scalar and Ricci Curvature
	Co-organizer of UCSB Differential Geometry Seminar (2019-2021 academic years)
SEMINAR/ CONFERENCE TALKS	Geometry/Topology Seminar, Rutgers University (September 14, 2021)
	Geometry/Topology Seminar, University of Toronto (September 13, 2021)
	Fields Postdoc Colloquium, The Fields Institute (September 10, 2021)
	Mini course, Sun Yat-sen Univeristy (August 18 20 22, 2021)
	Metric Geometry Seminar, Capital Normal University (June 11, 2021)
	Differential Geometry and Geometric Analysis Seminar, Princeton University (May 5, 2021)
	Virtual seminar on geometry with symmetries (April 7, 2021)
	Geometry/Topology Seminar, Rutgers University (November 3, 2020)
	Differential Geometry Seminar, University of California, Santa Barbara (October 16, 2020)
	Differential Geometry Seminar, Centro de Investigacion en Matematicas (October 12, 2020)
	2020 Virtual Workshop on Ricci and Scalar curvature (August, 2020)
	Geometry/Topology Seminar, Stony Brook University (May 26, 2020)
	Differential Geometry Seminar, University of California, Santa Barbara (February 21, 2020)
	Differential Geometry Seminar, Nanjing University (December 21, 2019)
	AMS Special Session on Topics in Global Geometric Analysis, University of California, Riverside (November 9 - 10, 2019)
	Geometry/Topology Seminar, University of Toronto (October 28, 2019)
	Differential Geometry Seminar, University of California, Berkeley (September 16, 2019)
	Geometry/Topology Seminar, Rutgers University (September 10, 2019)
	Differential Geometry Seminar, University of California, Santa Barbara (April 19, 2019)
	Differential Geometry Seminar, University of California, Irvine (February 12, 2019)
	Differential Geometry Seminar, University of California, Santa Barbara (October 26, 2018)
	Lecture series, Capital Normal University (July 27 - August 6, 2018)
	Geometry Seminar, Eastern China Normal University (July 19, 2018)
	Geometry Seminar, ZheJiang University (July 2, 2018)
	Geometry/Topology Seminar, Rutgers University (March 20, 2018)
	Geometry/Topology Seminar, Stony Brook University (February 13, 2018)
	Geometry/Topology Seminar, Rutgers University (October 17, 2017)
	Geometric Analysis Seminar, Fudan University (August 24, 2017)
	Young Mathematician Workshop on Differential and Metric Geometry, Capital Normal University (August 12-13, 2017)
	Geometric Analysis Seminar, CUNY Graduate Center (May 11, 2017)
	Geometry/Topology Seminar, Rutgers University (November 15, 2016)
	Workshop on Geometry and Analysis on Manifolds, Eastern China Normal University (July 16-17, 2016)
	Lecture series, Capital Normal University (June 8-22, 2016)

TEACHING EXPERIENCE	*University of California, Santa Barbara*	
	Spring 2021	*Vector Calculus I*
	Winter 2021	*Vector Calculus I*
	Fall 2020	*Non-Euclidean Geometry*
		Introduction of Differential Equations
	Spring 2020	*Vector Calculus I*
	Winter 2020	*Introduction of Differential Equations*
	Fall 2019	*Non-Euclidean Geometry*
		Vector Calculus I
	Spring 2019	*Introduction of Differential Equations*
	Winter 2019	*Vector Calculus I*
	Fall 2018	*Transition to Higher Mathematics*
		Introduction of Differential Equations
	Rutgers University, New Brunswick (Teaching assistant)	
	Spring 2018	*Introduction to Real Analysis*
	Summer 2017	*Differential Equations for Science & Engineering (Instructor)*
	Spring 2017	*Calculus II*
	Fall 2016	*Calculus II*
	Spring 2016	*Differential Equations for Science & Engineering*
	Fall 2015	*Introduction to Real Analysis*
	Spring 2015	*Calculus II*
	Fall 2014	*Calculus I*
	Spring 2014	*Calculus I*
	Fall 2013	*Calculus II*