

CONTACT INFORMATION	Department of Mathematics, UCSD 9500 Gilman Drive, La Jolla, CA 92093-0112	Homepage: http://www.math.ucsd.edu/~zim022/ ✉ E-mail: zim022@ucsd.edu
RESEARCH INTERESTS	Differential geometry, partial differential equations, Ricci flow, mean curvature flow, Kähler geometry	
EDUCATION	University of California, San Diego , La Jolla, CA Ph.D. program, Department of Mathematics Advisors: Prof. Bennett Chow, Prof. Lei Ni	2017–present. Ph.D. expected June 2022.
	Xi'an Jiaotong University , Xi'an, China B.S., Mathematics and Applied Mathematics	2013–2017
PUBLICATIONS	<ol style="list-style-type: none"> 1. Bamler, Richard H; Chow, Bennett; Deng, Yuxing; Ma, Zilu; Zhang, Yongjia. <i>Four-dimensional steady gradient Ricci solitons with 3-cylindrical tangent flows at infinity</i>. Adv. Math., 401 (2022): 108285. 2. Ma, Zilu and Zhang, Yongjia. <i>Perelman's entropy on ancient Ricci flows</i>. J. Funct. Anal. 281 (2021), no. 9, Paper No. 109195, 31 pp.; MR4290285 3. Chow, Bennett; Deng, Yuxing; Ma, Zilu. <i>On four-dimensional steady gradient Ricci solitons that dimension reduce</i>. Advances in Mathematics, to appear. 4. Ma, Zilu; Liu, Shiqi; Meng, Deyu, et al. <i>On convergence properties of implicit self-paced objective</i>. Inform. Sci. 462 (2018), 132–140; MR3835143 	
PREPRINTS	<ol style="list-style-type: none"> 1. Chan, Pak-Yeung; Ma, Zilu; Zhang, Yongjia. <i>Volume growth estimates of gradient Ricci solitons</i> arxiv: 2202.13302 (2022). 2. Chan, Pak-Yeung; Ma, Zilu; Zhang, Yongjia. <i>The rate of \mathbb{F}-convergence for Ricci flows with closed and smooth tangent flows</i>. arxiv: 2202.02421 (2022). 3. Chan, Pak-Yeung; Ma, Zilu; Zhang, Yongjia. <i>Hamilton-Ivey estimates for gradient Ricci solitons</i>. arxiv: 2112.11025 (2021). 4. Chan, Pak-Yeung; Ma, Zilu; Zhang, Yongjia. <i>A local Sobolev inequality on Ricci flow and its applications</i>. arxiv: 2111.05517 (2021). 5. Bamler, Richard H; Chan, Pak-Yeung; Ma, Zilu; Zhang, Yongjia. <i>An optimal volume growth estimate for noncollapsed steady gradient Ricci solitons</i>. arXiv:2110.04661 (2021). 6. Chan, Pak-Yeung; Ma, Zilu; Zhang, Yongjia. <i>On Ricci flows with closed and smooth tangent flows</i>. arXiv:2109.14763 (2021). 7. Chan, Pak-Yeung; Ma, Zilu; Zhang, Yongjia. <i>A uniform Sobolev inequality for ancient Ricci flows with bounded Nash entropy</i>. arXiv:2107.01419 (2021). 8. Chan, Pak-Yeung; Ma, Zilu; Zhang, Yongjia. <i>Ancient Ricci flows with asymptotic solitons</i>. arXiv:2106.06904 (2021). 	
SELECTED HONORS AND AWARDS	<ul style="list-style-type: none"> • Summer Graduate Teaching Scholar, UCSD • 2019-2020 Mathematics Department TA Award, UCSD • Friends of International Center Fellowship, UCSD • James B. Ax Graduate Fellowship, UCSD 	<p>2021</p> <p>2020</p> <p>2019</p> <p>2017</p>
TEACHING	<ul style="list-style-type: none"> • Instructor of Analysis Boot Camp for new graduate students, UCSD • Instructor of Math 18, Linear Algebra, UCSD • Senior MATLAB TA, UCSD 	<p>September, 2021</p> <p>Summer Session I, 2021</p> <p>Summer, 2019 – present</p> <p>Coordinating the MATLAB components of Math 18 (Linear Algebra) and Math 20D (Introduction to Differential Equations) with thousands of students enrolled in total each quarter.</p>

TALKS	• Rutgers University, Geometric Analysis Seminar	2/22/2022
	• University of Oregon, Geometric Analysis Seminar	11/9/2021
	• UCSD Differential Geometry Seminar	3/31/2021
	• UCSD Seminar on Cheeger–Colding theory, Ricci flow, Einstein metrics, and Related Topics	3/16/2021
	• Advancement to candidacy	5/12/2020
SERVICES	• AWM (American Women in Mathematics) Mentorship Program	Winter, 2022
	• MAE Math Tutoring	Fall, 2021