

Curriculum Vitae

Guofang Wei

General Information —

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Citizenship: United States

Research Field —Differential Geometry

Education —

- B.S., Zhejiang University, China, July 1985
- Ph.D., State University of New York, Stony Brook, August 1989
Thesis Advisor: Detlef Gromoll

Award, Fellowship and Honor —

- Eisenbud Professor, MSRI, Spring 2016
- Changjiang Scholar, East China Normal University, 2015-2018
- 2014 Class of the Fellows of the American Mathematical Society
- NSF Grant, June 1990–92, 94–95, 1996-2014
- Member, IHES, August 1998
- Member, MSRI, March 2007, September 2013
- Alfred P. Sloan Doctoral Dissertation Fellow, 1988–89

Employment —

- Professor, UC Santa Barbara, 7/2002–
- Associate professor, UC Santa Barbara, 7/1996–6/2002
- Assistant professor, UC Santa Barbara, 7/1992– 6/1996
- Visiting assistant professor, UC Los Angeles, 7/1995–3/1996 (on leave from UCSB)
- Postdoctoral fellow, MSRI, 9/1993-12/1993 (on leave from UCSB)
- Postdoctoral fellow, MSRI, 9/1991–6/1992
- C. L. E. Moore Instructor, MIT, 7/1989–8/1991

Invited Lectures (selected) —

- Universal Covers and $\text{RCD}^*(K, N)$, Smoky-Cascade Geometry Conference, University of Tennessee, Knoxville, 02/13/14
- Monotonicity Formulas for Bakry-Emery Ricci Curvature (with B. Song, G. Wu), Introductory Workshop on Optimal Transport: Geometry and Dynamics, MSRI, 08/30/13
- Various Covering Spectra (with C. Sormani), Geometry Seminar, Stanford University, 02/13/13
- Comparison results for Ricci curvature, AMS Plenary Lecture, Fall 2012 Meeting of the Western Section, U. of Arizona, Tucson, 10/12
- Comparison geometry for Bakry-Emery Ricci curvature, Mini-course, National Center for Theoretical Science, Hsinchu, Taiwan, 6/5-6/6/12
- Smooth metric measure spaces and Ricci solitons, Workshop on Geometric Partial Differential Equations - Hsinchu Venue, Taiwan, 6/9/12
- Smooth metric measure spaces and Ricci solitons, BIRS Workshop: Optimal transportation and differential geometry, Banff, Canada, 5/21/12
- Characterizations of lower Ricci curvature bound, Mini-workshop on lower curvature bounds, Oberwolfach, Germany, 1/2/12
- Comparison Geometry and Ricci Solitons, Bay Area Differential Geometry Seminar, Stanford University, 4/23/11
- Comparison Geometry and Ricci Solitons, Ricci Solitons Days, Centro De Giorgi, Pisa, 4/6/11
- Spaces with Bakry-Emery Ricci Curvature Bounded from Below, Interactions between geometry and analysis, Univ. of Notre Dame, 10/23/10
- Spaces with Bakry-Emery Ricci Curvature Bounded from Below, Symposia on Analysis of Geometric Evolution, University of Texas at Austin, 09/2/10
- On volume of hyperbolic orbifolds (with I. Adebayo), Geometry/Topology Seminar, Rutgers University, 04/27/10
- Liouville type theorems for nonnegative Bakry-Emery Ricci tensor, Geometric Analysis Seminar, Princeton University, 04/23/10
- Ricci Curvature for Smooth Metric Measure Spaces, Workshop on Riemannian and Non-Riemannian Geometry, Indiana University Purdue University Indianapolis, 08/08/09
- Smooth Metric Measure Spaces, Pacific Northwest Geometry Seminar, University of British Columbia, 05/03/09
- Smooth Metric Measure Spaces, 24th Annual Geometry Festival, SUNY Stony Brook, 04/18/09
- Smooth Metric Measure Spaces, Southern California Geometric Analysis Seminar, UC San Diego, 02/22/09
- Comparison Geometry for Ricci curvature, Four one hour lectures at Summer school on “New approaches to curvature”, Les Diablerets, Switzerland, 08/25-29/08
- Rigidity of Quasi-Einstein Metrics (with J. Case and Y.-J. Shu), Workshop in Global Riemannian Geometry, Cuernavaca, Morelos, Mexico, 05/15/08

- Comparison geometry for the smooth metric measure spaces (with W. Wylie), Workshop in Special Structures in Riemannian Geometry, Banff International Research Station for Mathematical Innovation and Discovery, Canada, 02/19/08
- Comparison geometry for the smooth metric measure spaces (with W. Wylie), International Congresses of Chinese Mathematicians, Hangzhou, China, 12/21/07
- Manifolds with a lower bound on the Bakry-Emery Ricci tensor (with W. Wylie) Geometric Evolution Equation Seminar, MSRI, 03/21/07
- Manifolds with a lower bound on the Bakry-Emery Ricci tensor (with W. Wylie) Geometric flows and related topics Workshop, Warwick University, England, 03/30/07
- Comparison geometry for the Bakry-Emery Ricci tensor (with W. Wylie) Colloquium, University of Notre Dame, 09/4/07
- Volume comparison and its generalizations, Special RTG Lecture, Michigan State University, 09/5/07
- Comparison geometry for the Bakry-Emery Ricci tensor (with W. Wylie) Geometric Analysis Seminar, Michigan State University, 09/6/07
- On the Stability of Kahler-Einstein Metrics (with X. Dai, X. Wang), Differential Geometry and Geometric Analysis Seminar, Stanford University, 01/24/07.
- Relative volume comparison with integral curvature bounds, XIth Geometry Festival at Maryland, April 1996

Other Professional Contributions —

- Editor, Proc. AMS, Feb. 2014 — current
- Member, Board of Governors of Pacific Journal of Mathematics
- Panelist for NSF, Jan. 1997, Feb. 2009, Dec. 2010, March 2012, Jan. 2015
- Co-organizer, AMS special sessions on
Geometric Analysis and Riemannian Geometry, University of Arizona, Tucson, AZ, 10/27-28/2012
Geometric Analysis, UCSB, March 2000
Curvature and Topology, Montreal, Quebec, Canada May, 2002
Convergence of Riemannian Manifolds, Lawrenceville, NJ 4/17-4/18/04
Ricci Flow/Riemannian Geometry, UCSB, 4/16-4/17/05
- Co-organizer, Santa Barbara Summer Conference in Riemannian Geometry, July, 1999

Ph. D. Students —

- Lydia Kennedy, 2003, Associate Professor, Virginia Wesleyan
- John Ennis, 2004, Vice President - Research Operations at The Institute for Perception
- William C Wylie 2006, Assistant Professor, Syracuse University
- Peng Wu 2012, H. C. Wang Assistant Professor, Cornell University
- Kevin Brighton 2012, Lecture, Northern Arizona University
- Brent Albrecht 2013, Assistant Professor, Dixie State University

- Maree Jaramillo 2014, Postdoctoral Fellow, University of Connecticut

Postdoctoral Scholars Supervised —

- Vitali Kapovitch, 2001-2004
- Yu Ding, 2005-2006
- Yujen Shu, 2007-2010
- Bingyu Song, 2012-2013
- Lee Kennard, 2012-2015

Publication List of Guofang Wei —

1. *Examples of complete manifolds of positive Ricci curvature with nilpotent isometry groups*, Bull. Amer. Math. Soc. Vol. 19, no. 1 (1988), 311–313.
2. *Aspects of positively Ricci curved spaces: new examples and the fundamental group*, Ph.D. thesis, SUNY at Stony Brook, 1989.
3. *On the fundamental groups of manifolds with almost-nonnegative Ricci curvature*, Proc. of AMS Vol. 110 (1990), 197–199.
4. *On Riemannian manifolds of almost nonnegative curvature* (joint with Z. Shen), Indiana Univ. Math. J. Vol. 40 (1991), 551–565.
5. *Volume growth and finite topological type* (joint with Z. Shen), Proc. Symposia in Pure Math. 54 (1993), 539-549.
6. *Negative Ricci curvature and isometry group* (joint with X. Dai and Z. Shen), Duke Math J. 76 (1994) 59-73.
7. *Finite part of the spectrum and isospectrality* (joint with X. Dai), Contemp. Math. 173 (1994) 99-107.
8. *Toponogov type comparison estimate for Ricci curvature* (joint with X. Dai), Math. Ann. 303 (1995) 297-306.
9. *Smoothing Riemannian metrics with Ricci curvature bounds* (joint with X. Dai and R. Ye), Manu. Math. 90 (1996) 46-61.
10. *Comparison geometry with integral curvature bounds* (joint with P. Petersen, S. Shteingold), GAFA (Geometric and functional analysis) 7 (1997) 1011-1030.
11. *Relative volume comparison with integral curvature bounds* (joint with P. Petersen), GAFA (Geometric and functional analysis) 7 (1997) 1031-1045.
12. *Ricci curvature and betti numbers*, J. Geom. Anal. 7 (1997) 493-509.
13. *Controlled geometry via smoothing* (joint with P. Petersen and R. Ye), Comment. Math. Helv. 74 (1999) 345-363.
14. *Integral pinching theorems* (joint with X. Dai and P. Petersen), Manu. Math. 101 (2000) 143-152.
15. *Analysis and geometry on manifolds with integral Ricci curvature bounds II* (joint with P. Petersen), Trans. Amer. Math. Soc. 353 (2001), no.2, 457–478.

16. *Hausdorff convergence and universal covers* (joint with C. Sormani), Trans. Amer. Math. Soc. 353 (2001), 3585-3602.
17. *Metrics of positive Ricci curvature on vector bundles over nilmanifolds* (joint with I. Belegradek), GAFA 12 (2002) 56-72.
18. *A heat kernel lower bound for integral Ricci curvature* (joint with X. Dai), Michigan Math. Jour. 52 (2004) 61-69.
19. *Universal covers for Hausdorff limits of noncompact spaces* (joint with C. Sormani), Trans. Amer. Math. Soc. 356 (2004), no. 3, 1233-1270.
20. *Metrics of positive Ricci curvature on bundles* (joint with I. Belegradek), International Math Research Notices 2004 n. 57 (2004) 3079-3096.
21. *The covering spectrum of a compact length space* (joint with C. Sormani), Journal of Diff. Geom. 67 (2004) 35-77.
22. *On the Stability of Riemannian Manifold with Parallel Spinors* (joint with X. Dai, X. Wang), Inven. Math. 161 (2005) 151-176.
23. *Describing the Universal Cover of a Compact Limit* (joint with J. Ennis), Differential Geometry and its Applications 24, Issue 5 (2006), 554-562 .
24. *Hitchin-Thorpe Inequality for Noncompact Einstein 4-Manifolds* (with X. Dai), Adv. in Math. 214 (2007) 551-570.
25. *Manifolds with A Lower Ricci Curvature Bound*, Surveys in Differential Geometry XI (2007) 203-228.
26. *On the Variational Stability of Kähler-Einstein Metrics* (with X. Dai, X. Wang) Comm. in Analysis and Geom., Vol. 15, no. 4 (2007) pp. 669-693.
27. *Comparison Geometry for the Smooth Metric Measure Spaces* (with W. Wylie) Proceedings of the 4th International Congress of Chinese Mathematicians, Hangzhou, China, , Vol. II (2007) pp. 191-202.
28. *A Neumann Type Maximum Principle for the Laplace Operator on Compact Riemannian Manifolds* (with R. Ye) Journal of Geometric Analysis, Vol 19, no. 3 (2009) pp. 719-736.
29. *Comparison Geometry for the Bakry-Emery Ricci Tensor* (joint with W. Wylie), Journal of Diff. Geom. Vol. 83, no. 2 (2009) pp. 377-405.
30. *The Cut-off Covering Spectrum* (with C. Sormani) Tran. AMS, Vol. 362, no. 5 (2010) pp. 2339-2391.
31. *Describing the universal cover of a noncompact limit* (with J. Ennis) Geometry and Topology, Vol. 14, no. 4 (2010) pp. 2479-2496.
32. *Rigidity of Quasi-Einstein Metrics* (with J. Case and Y.-J. Shu) Differential Geometry and its Applications, Vol. 29 (2011) pp. 93-100.
33. *On Volume of Hyperbolic Orbifolds* (with I. Adeboye) Algebraic and Geometric Topology, Vol. 12 (2012) pp. 215-233.
34. *Volume comparison and its generalizations*, Advanced Lecture in Mathematics, Vol. 22 (2012) pp. 311-322.

35. *On Volume Growth of Gradient Steady Ricci Solitons* (with P. Wu), Pacific Journal of Mathematics, 265 (2013), 233-241.
36. *On volumes of complex hyperbolic orbifolds* (with I. Adeboye), Michigan Math. Journal 63, Issue 2 (2014), 355-369.
37. *Various Covering Spectra for Complete Metric Spaces* (with C. Sormani), Asian Journal of Math. Vol. 19 (2015), 171-202.
38. *Monotonicity Formulas for Bakry-Emery Ricci Curvature* (with B. Song, G. Wu), J. Geometric Analysis, in press.