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EDUCATION

- Ph.D. in Mathematics, with distinction, Columbia University, 2004
- M.A. in Mathematics, Columbia University, 2000
- B.S. in Applied Mathematics, Tsinghua University, Beijing, 1999

EMPLOYMENT

- Professor, Rutgers University, 2014 - present
- Associate professor, Rutgers University, 2010 - 2014
- Tenure track assistant professor, Rutgers University, 2007 - 2010
- J. J. Sylvester assistant professor, Johns Hopkins University, 2004 - 2007
- Postdoctoral fellow, Mathematical Sciences Research Institute, Berkeley, Spring 2007

AWARDS AND HONORS

- National Science Foundation Grant: DMS-1711439, 2017 - 2020
- National Science Foundation Grant: DMS-1406124, 2014 - 2017
- National Science Foundation Early Career Award: DMS-0847524, 2009 - 2014
- Alfred P. Sloan Research Fellow, 2009 - 2013
- Rutgers President's Award, 2010
- National Science Foundation Grant: DMS-0604805, 2006 - 2009
- Columbia University Departmental Fellowship, 1999 - 2004

GRADUATE STUDENTS

- Xin Fu, 4th year graduate student
- Bin Guo, Ph.D. 2015
- Ved Datar, Ph.D. 2014
- Yuan Yuan, Ph.D. 2010

PUBLICATIONS

1. *Connecting toric conical Kähler-Einstein manifolds*, with Datar, V., Guo, B. and Wang, X., *Adv. Math.* 323 (2018), 38–83
2. *The Kähler-Ricci flow through singularities*, with G. Tian, *Invent. Math.* 207 (2017), no. 2, 519–595
3. *On Feldman-Ilmanen-Knopf conjecture for the blow-up behavior of the Kähler Ricci flow*, with B. Guo, *Math. Res. Lett.* 23 (2016), no. 6, 1681–1719
4. *Geometric convergence of the Kähler-Ricci flow on complex surfaces of general type*, with B. Guo and B. Weinkove, *Int. Math. Res. Not. IMRN* 2016, no. 18, 5652–5669
5. *The greatest Ricci lower bound, conical Einstein metrics and the Chern number inequality*, with X. Wang, *Geom. Topol.* 20 (2016), no. 1, 49–102
6. *Degeneration of Kahler-Ricci solitons on Fano manifolds*, with D.H. Phong and J. Sturm, *Univ. Iagel. Acta Math. No.* 52 (2015), 29–43
7. *Bounding scalar curvature for global solutions of the Kähler-Ricci flow*, with G. Tian, *Amer. J. Math.* 138 (2016), no. 3, 683–695
8. *Some Type I solutions of Ricci flow with rotational symmetry*, *Int. Math. Res. Not. IMRN* 2015, no. 16, 7365–7381
9. *On a conjecture of Candelas and de la Ossa*, *Comm. Math. Phys.* 334 (2015), no. 2, 697–717
10. *A remark on Kahler metrics with conical singularities along a simple normal crossing divisor*, with V. Datar, *Bull. Lond. Math. Soc.* 47 (2015), no. 6, 1010–1013
11. *Finite time extinction of the Kähler-Ricci flow*, *Math. Res. Lett.* 21 (2014), no. 6, 1435–1449
12. *The J-flow on Kahler surfaces: a boundary case*, with H. Fang, M. Lai and B. Weinkove, *Anal. PDE* 7 (2014), no. 1, 215–226
13. *Contracting exceptional divisors by the Kähler-Ricci flow II*, with B. Weinkove, *Proc. Lond. Math. Soc. (3)* 108 (2014), no. 6, 1529–1561

14. *The degenerate J-flow and the Mabuchi energy on minimal surfaces of general type*, with B. Weinkove, Univ. Iagel. Acta Math. No. 50, (2013), 89–106
15. *The Kähler-Ricci flow on projective bundles*, with B. Szekelyhidi and B. Weinkove, Int. Math. Res. Not. IMRN 2013, no. 2, 243–257
16. *Contracting exceptional divisors by the Kähler-Ricci flow*, with B. Weinkove, Duke Math. J. 162 (2013), no. 2, 367–415
17. *Lecture notes on the Kähler-Ricci flow*, with B. Weinkove, 'An introduction to the Kähler-Ricci flow', 89–188, Lecture Notes in Math., 2086, Springer, Cham, 2013
18. *Canonical measures and Kähler-Ricci flow*, with G.Tian, J. Amer. Math. Soc. 25 (2012), 303–353
19. *Metric flips with Calabi ansatz*, with Y. Yuan, Geom. Func. Anal. 22 (2012), no. 1, 240–265
20. *Complex Monge-Ampère equations*, with D.H. Phong and J. Sturm, Surveys in Differential Geomety, vol. 17, 327–411 (2012)
21. *Test configurations, large deviations and geodesic rays on toric varieties*, with S. Zelditch, Adv. Math. 229 (2012), no. 4, 2338–2378
22. *The Kähler-Ricci flow on Hirzebruch surfaces*, with B. Weinkove, J. Reine Angew. Math. 659 (2011), 141–168
23. *Convergence of the Kähler-Ricci flow on singular Calabi-Yau varieties*, with Y. Yuan, ALM 21, Advances in Geometric Analysis (volume dedicated to Professor Shing-Tung Yau), 119-138, 2012
24. *The modified Kähler-Ricci flow and solitons*, with D.H. Phong, J. Sturm and B. Weinkove, Comment. Math. Helv. 86 (2011), no. 1, 91–112
25. *Bergman metrics and geodesics in the space of Kähler metrics on toric varieties*, with S. Zelditch, Anal. PDE. 3 (2010), no. 3, 295–358
26. *Constructions of Kähler-Einstein metrics with negative scalar curvature*, with B. Weinkove, Math. Ann. 347 (2010), no. 1, 59–79
27. *The Kähler-Ricci flow with positive bisectional curvature*, with D.H. Phong, J. Sturm and B. Weinkove, Invent. Math. 173 (2008), no. 3, 651–665
28. *The Kähler-Ricci flow and the $\bar{\partial}$ operator on vector fields*, with D.H. Phong, J. Sturm and B. Weinkove, Differential Geom. 81 (2008), no. 3, 631–647
29. *The Moser-Trudinger inequality on Kähler-Einstein manifolds*, with D.H. Phong, J. Sturm and B. Weinkove, Amer. J. Math. 130 (2008), no. 4, 1067–1085

30. *The convergence and singularities of the J-flow with applications to the Mabuchi energy*, with B. Weinkove, *Comm. Pure Appl. Math.* 61 (2008), no. 2, 210–229
31. *The Kähler-Ricci flow on minimal surfaces of positive Kodaira dimension*, with G. Tian, *Invent. Math.* 170 (2007), no. 3, 609–653
32. *Energy functionals and canonical Kahler metrics*, with B. Weinkove, *Duke Math. J.* 137 (2007), no. 1, 159–184
33. *Convergence of Bergman geodesics on \mathbf{CP}^1* , with S. Zelditch, *Ann. Inst. Fourier, Grenoble* 57, 7 (2007) 2209–2237
34. *On Donaldson’s flow of surfaces in a hyperkähler four-manifold*, with B. Weinkove, *Math. Z.* 256 (2007), no. 4, 769–787
35. *The Kähler-Ricci flow on Kähler surfaces*, *Proceedings of Gökova Geometry-Topology Conference 2006*, 123–135
36. *The α -invariant on toric Fano manifolds*, *Amer. J. Math.* 127 (2005), no. 6, 1247–1259
37. *The α -invariant on certain surfaces with symmetry groups*, *Trans. Amer. Math. Soc.* 357 (2005), 45–57

PREPRINTS AND WORKING PAPERS

1. *Geometric estimates for complex Monge-Ampere equations*, arXiv:1706.01527 with X. Fu and B. Guo
2. *Degeneration of Kahler-Einstein manifolds of negative scalar curvature*, arXiv:1706.01518
3. *Schauder estimates for equations with cone metrics, I*, with B. Guo, arXiv:1612.00075
4. *Convergence of the conical Ricci flow on S^2 to a soliton* with D.H. Phong, J. Sturm and X. Wang, arXiv:1503.04488
5. *Riemannian geometry of Kähler-Einstein currents II: an analytic proof of Kawamata’s base point free theorem*, arXiv:1409.8374
6. *The Ricci flow on the sphere with marked points* with D.H. Phong, J. Sturm and X. Wang, arXiv:1407.1118
7. *Riemannian geometry of Kähler-Einstein currents*, arXiv:1404.0445
8. *Ricci flow and birational surgery*, arXiv:1304.2607