

Yalong Shi

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Education

- 2005–2010 Ph.D., Mathematics, Peking University, China.
Thesis Title: Applications of singularity exponents in Kähler geometry
Supervisors: Professor Weiyue Ding and Professor Gang Tian
- 2007–2008 Visiting Student, Princeton University, USA
- 2001–2005 B.Sc., Mathematics, Peking University, China

Working Experience

- 2013–Now Associate Professor, Department of Mathematics, Nanjing University, China
- 2012–2013 Postdoctoral fellow, Mathematics Section, ICTP, Italy
- 2010–2013 Lecturer, Department of Mathematics, Nanjing University, China

Teaching

- 2022 Autumn Math. Analysis 1, Several complex variables & complex geometry
- 2022 Spring From Calculus to Cohomology, Compact Riemann Surfaces
- 2021 Autumn Mathematical Analysis 3
- 2021 Spring Compact Riemann Surfaces
- 2020 Autumn Mathematical Analysis 1
- 2020 Spring Compact Riemann Surfaces
- 2019 Autumn Several complex variables and complex geometry
- 2019 Spring Mathematical Analysis 2
- 2018 Autumn Math. Analysis 1, Several complex variables & complex geometry

2017 Spring	Compact Riemann Surfaces
2016 Autumn	Mathematical Analysis 3
2016 Spring	Experiencing Mathematics 2
2015 Autumn	Experiencing Mathematics 1, Brief Calculus
2015 Spring	Differential Manifolds and Lie Groups
2014 Autumn	Analytic Geometry
2014 Spring	Differential Geometry, Differential Manifolds and Lie Groups
2013 Autumn	Analytic Geometry
2013 Spring	Differential Geometry, Differential Manifolds and Lie Groups
2011 Autumn	Linear Algebra
2011 Spring	Calculus 2(several variables)
2010 Autumn	Compact Riemann Surfaces

Research Interests

Kähler Geometry and singularity

Geometric Analysis and related PDE

Fundings and Awards

2019-2022	NSFC No. 11871265
2017-2022	Junior Associate of the ICTP
2014-2018	NSFC No. 11331001 (as participant)
2012-2014	NSFC No. 11101206

Publications

- [1] Jiang, Xumin and **Shi, Yalong**, *Asymptotic expansions of complete Kähler-Einstein metrics with finite volume on quasi-projective manifolds*, Science China: Mathematics, Vol.65(2022) no.9,1953-1974.
- [2] Jian, Wangjian and **Shi, Yalong**, *A “boundedness implies convergence” principle and its applications to collapsing estimates in Kähler geometry*, Nonlinear Anal. 206 (2021), 112255, <https://doi.org/10.1016/j.na.2021.112255>.

- [3] Jian, Wangjian and **Shi, Yalong** , *Global Higher-Order Estimates for Collapsing Calabi-Yau Metrics on Elliptic K3 Surfaces*, The Journal of Geometric Analysis, 2020, <https://doi.org/10.1007/s12220-020-00445-8>.
- [4] Jian, Wangjian, **Shi, Yalong** and Song, Jian, *A remark on constant scalar curvature Kähler metrics on minimal models*, Proceedings of the AMS, 147(2019), no.8, 3507-3513.
- [5] Feng, Ke, **Shi, Yalong** and Xu, Yiyang, *On the Dirichlet problem for a class of singular complex Monge-Ampère equations*, Acta Math. Sin. (Engl. Ser.) 34 (2018), no. 2, 209–220. .
- [6] Li, Haozhao and **Shi, Yalong**. *A criterion for the properness of the K-energy in a general Kähler class (II)*. Commun. Contemp. Math. 18 (2016), no. 6, 1550071, 15 pp.
- [7] Li, Haozhao and **Shi, Yalong** *The Futaki invariant on the blowup of Kähler surfaces*. Int. Math. Res. Not. IMRN 2015, no. 7, 1902–1923.
- [8] Li, Haozhao, **Shi, Yalong** and Yao, Yi. *A criterion for the properness of the K-energy in a general Kähler class*. Math. Ann. 361 (2015), no. 1-2, 135–156.
- [9] **Shi, Yalong** and Zhu, Xiaohua. *Kähler-Ricci solitons on toric Fano orbifolds*. Math. Z. 271 (2012), no. 3-4, 1241–1251.
- [10] **Shi, Yalong** and Zhu, Xiaohua. *An example of a singular metric arising from the blow-up limit in the continuity approach to Kähler-Einstein metrics*. Pacific J. Math. 250 (2011), no. 1, 191–203.
- [11] **Shi, Yalong**. *On the α -invariants of cubic surfaces with Eckardt points*. Adv. Math. 225 (2010), no. 3, 1285–1307.

Preprints

- [1] Arezzo, Claudio, Della Vedova, Alberto and **Shi, Yalong**. *Constant scalar curvature Kähler metrics on ramified Galois coverings*, arXiv:2110.01222.