Xiaokui Yang (September 28, 2018)

CONTACT INFORMATION	Academy of Mathematics and Systems Science, Chinese Academy of Sciences
EMAIL	xkyang@amss.ac.cn
RESEARCH INTERESTS	differential geometry, complex algebraic geometry, geometric analysis
EDUCATION	**UCLA**, PhD., 2012

ACADEMIC APPOINTMENTS

Professor   March 2016 to present
Academy of Mathematics and Systems Science,
Chinese Academy of Sciences, Beijing, China

Associate Professor   July 2015 to March 2016
Academy of Mathematics and Systems Science,
Chinese Academy of Sciences, Beijing, China

Boas Assistant Professor   Semptember 2012 to July 2015
Northwestern University, Evanston, IL, USA

Lecturer   June 2012 to August 2012
UCLA, Los Angeles, CA, USA

GRANTS

Recruit Program for Global Young Experts (青年千人计划), Principal Investigator, 2015–2017.

HONOUR

"中国科学院特聘研究员"(特聘骨干人才)，2017年。

PREPRINTS

35. Xiaokui Yang (Joint with Jun Wang), RC-positivity and scalar-flat metrics on ruled surfaces.
arXiv:1809.01105

34. Xiaokui Yang (joint with Kefeng Liu, Xueyuan Wan), Logarithmic vanishing theorems for effective q-ample divisors.
arXiv:1807.07478

33. Xiaokui Yang, RC-positive metrics on rationally connected manifolds.
arXiv:1807.03510

32. [Xiaokui Yang](#), RC-positivity, vanishing theorems and rigidity of holomorphic maps.
[arXiv:1807.02601](#)

31. Xiaokui Yang (Joint with Jie He, Kefeng Liu), Levi-Civita Ricci flat metrics on compact complex manifolds.
[arXiv:1806.07206](#)

30. Xiaokui Yang (joint with Duo Li, Wenhao Ou), On projective varieties with strictly nef tangent bundles.
[arXiv:1801.09191.](#)

29. Xiaokui Yang (joint with Bing-Long Chen), On Euler characteristic and fundamental groups of compact manifolds.
[arXiv:1711.03309](#)

28. [Xiaokui Yang](#), Scalar curvature, Kodaira dimension and $\hat{A}$-genus.
[arXiv:1706.01122](#)

27. Xiaokui Yang (joint with Chunle Huang, Kefeng Liu, Xueyuan Wan), Logarithmic vanishing theorems on compact Kähler manifolds I.
[arXiv:1611.07671.](#)

26. Xiaokui Yang (Joint with Jun Wang), RC-positivity and rigidity of harmonic maps into Riemannian manifolds.
[arXiv:1809.04449.](#)
To appear in Science China Math.

25. [Xiaokui Yang](#), A partial converse to the Andreotti-Grauert theorem.
[arXiv:1707.08006](#)
To appear in Compositio. Math.

24. Xiaokui Yang(joint with Xiaoyu Su), Global generation and very ampleness for adjoint linear series.
[arXiv:1606.02046.](#)
To appear in Comm. Anal. Geom.

23. [Xiaokui Yang](#), Scalar curvature on compact complex manifolds.
[arXiv:1705.02672](#)
To appear in Trans. Amer. Math. Soc.

22. Xiaokui Yang (joint with Fangyang Zheng), On real bisectional curvature for Hermitian manifolds.
[arXiv:1610.07165.](#)
To appear in Trans. Amer. Math. Soc.

21. Xiaokui Yang, RC-positivity, rational connectedness and Yau's conjecture.
Camb. J. Math. 6 (2018), 183–212.

20. Xiaokui Yang (joint with Bing-Long Chen), Compact Kähler manifolds homotopic to negatively curved Riemannian manifolds.
Math. Ann. 370 (2018), 1477–1489.

19. Xiaokui Yang (Joint with Valentino Tosatti and Ben Weinkove), The Kähler-Ricci flow, Ricci-flat metrics and collapsing limits.
Amer. J. Math. 140 (2018), no.3, 653–698.

18. Xiaokui Yang (Joint with Kefeng Liu), Minimal complex surface with Levi-Civita Ricci flat metrics.
Acta Math. Sinica. 34(2018), 1195–1207. *In Memory of Professor Lu Qi-Keng.*

17. Xiaokui Yang (Joint with Kefeng Liu, Xiaofeng Sun and Shing-Tung Yau), Curvatures of moduli space of curves and applications.
Asian J. Math. 21 (2017), no.5, 241–254.

16. Xiaokui Yang(Joint with V. Tosatti), An extension of a theorem of Wu-Yau.
J. Differential Geom. 107 (2017), no.3, 573–579.

15. Xiaokui Yang (Joint with Kefeng Liu), Ricci curvatures on Hermitian manifolds.
Trans. Amer. Math. Soc. 369 (2017), 5157–5196.

14. Xiaokui Yang, Big vector bundles and compact complex manifolds with semi-positive tangent bundles.
Math. Ann. 267 (2017), no.1, 251–282.

13. Xiaokui Yang, The Chern-Ricci flow and holomorphic bisectional curvature.
Sci. China Math. 59 (2016), no.11, 2199–2204.

12. Xiaokui Yang, Hermitian manifolds with semi-positive holomorphic sectional curvature.
Math. Res. Lett. 23 (2016), no.3, 939–952.

11. Xiaokui Yang (Joint with Kefeng Liu), Effective vanishing theorems for ample and globally generated vector bundles.
Comm. Anal. Geom. 23 (2015), no.4, 797–818.

10. Xiaokui Yang (Joint with Valentino Tosatti, Yu Wang and Ben Weinkove), $C^{2,\alpha}$ estimates for nonlinear elliptic equations in complex and almost complex geometry.
Calc. Var. Partial Differential Equations. 54 (2015), no.1, 431–453.

9. Xiaokui Yang (Joint with Valentino Tosatti and Ben Weinkove), Collapsing of the Chern-Ricci flow on elliptic surfaces.
Math. Ann. 362 (2015), no.3, 1223–1271.

8. Xiaokui Yang (Joint with Kefeng Liu and Sheng Rao), Quasi-isometry and deformations of Calabi-Yau manifolds.
Invent. Math. 199 (2015), no. 2, 423–453.

7. Xiaokui Yang (Joint with Kefeng Liu), Hermitian harmonic maps and non-degenerate curvatures.
Math. Res. Lett. 21 (2014), no. **4**, 831–862.

6. Xiaokui Yang (Joint with Kefeng Liu), Curvatures of direct image sheaves of vector bundles and applications I.
J. Differential Geom. 98 (2014), 117–145.

5. Xiaokui Yang (Joint with Kefeng Liu and Xiaofeng Sun), Positivity and vanishing theorems for ample vector bundles.
J. Algebraic Geom. **22** (2013), 303–331.

4. Xiaokui Yang (Joint with Kefeng Liu), Geometry of Hermitian manifolds.
Internat. J. Math. 23, (2012). 1250055

3. Xiaokui Yang (Joint with Min Dai), Mappings of bounded distortion between complex manifolds.
Pure Appl. Math. Q. 8 (2012), no. 4 835–850.

2. Xiaokui Yang (Joint with Min Dai), Bochner formulas on Hermitian manifolds and applications.
Appl. Math. J. Chinese Univ. Ser. A 24 (2009), no. 4, 462–472.

1. Xiaokui Yang (Joint with Kefeng Liu), Harmonic maps between compact Hermitian manifolds.
Science in China Ser. A. 51 (2008), no. 12, 2149–2160.

Selected
Research Talks

20. International conference on geometry and topology, Capital Normal University, Beijing, December 2016

19. Workshop on Analysis and Geometry, Xiamen University, Xiamen, November 2016

18. Several variable conference annual meeting, Hebei Normal University, Shijiazhuang, August, 016

17. Workshop in complex geometry, Capital Normal University, Beijing, May 2016

16. The Forum of Young Geometers, Sanya. January, 2016

15. Shanghai Jiaotong University, Shanghai. December, 2015

14. China University of Mining and Technology. December, 2015.

13. Yangzhou University, Yangzhou. November, 2015.

12. Nanjing University, Nanjing. November, 2015.

11. Workshop on symplectic geometry and global analysis, USTC, Hefei. August 2015

10. The conference on Geometry and Analysis, USTC, Hefei. August 2015

9. The conference on Ricci Curvature, Northwestern University, Evanston. May, 2015

8. University of Maryland, College Park. April, 2015

7. Notre Dame University, South Bend. April, 2015

6. Math Institute of Chinese Academy of Science, Beijing. January, 2015

5. Huazhong University of Science and Technology, Wuhan. December, 2013

4. Center of Mathematical Science, Zhejiang University. December, 2013.

3. Northwestern University, Evanston. January, 2013

2. UCR, Riverside. Aril, 2011

1. UCLA, Los Angeles. October, 2010.

Teaching Experience	**Department of Mathematics, Northwestern University**, Evanston, IL, USA

- Math 240: *Linear Algebra* , Spring 2015

- Math 220: *Differential Calculus of one-variable Functions* , Fall 2014

- Math 325: *Complex analysis* , Spring 2014

- Math 230: *Differential Calculus of Multivariable Functions* , Winter 2014

- Math 220: *Differential Calculus of one-variable Functions* , Fall 2013

- Math 224: *Integral Calculus of one-variable Functions* , Summer 2013

- Math 325: *Complex analysis* , Spring 2013

- Math 230: *Differential Calculus of Multivariable Functions* , Winter 2013

- Math 230: *Differential Calculus of Multivariable Functions* , Fall 2012

UCLA Department of Mathematics, Los Angeles, CA, USA

- Math 32A: *Calculus of Several Variables*, Summer 2012

- Math 33B: *Differential equations*, TA, Fall 2011

- Math 32A: *Calculus of Several Variables*, TA, Spring 2011

- Math 255B (Graduate): *Differential Geometry*, TA, Winter 2011

- Math 120A: *Differential Geometry*, TA, Fall 2010

- Math 120B: *Differential Geometry*, TA, Spring 2010

- Math 120A: *Differential Geometry*, TA, Winter 2010

- Math 32B: *Calculus of Several Variables*, TA, Fall 2009

- Math 3A: *Calculus for Life Sciences Students*, TA, Spring 2009.

Zhejiang University, Hangzhou, Zhejiang, China

- *Introduction to Complex Geometry*, Spring term 2008

- *Introduction to Partial Differential Equations*, Fall term 2007

Professional Service	Referee Service:

- Acta. Mathematica.
- Inventiones Math.
- Journal of Differential Geometry
- Journal of Algebraic Geometry
- Algebraic Geometry

- Math Ann.
- Trans. AMS.
- Pacific Journal of Mathematics
- Communications in Analysis and Geometry
- IMRN
- Internat. J. Math.
- J. Geom. Anal.
- Forum Math.
- Math Z.
- Pure and Applied Math Quarterly
- Science China Math.
- Tokyo J. Math.