Curriculum vitae of Jiguang Bao

Update: December 22, 2019

Educations:

Ph.D., Peking University, Beijing, China, 9/1995-6/1998.

M.S., Beijing Normal University, Beijing, China, 9/1985-6/1988.

B.S., Beijing Normal University, Beijing, China, 9/1981-6/1985.

Positions:

Professor II, Beijing Normal University, 9/2016-present.

Professor III, Beijing Normal University, 9/2007-9/2016.

Professor, Beijing Normal University, 9/2001-9/2007.

PIMS Post-doctoral Research Fellow, University of British Columbia, 9/2000-9/2001.

Associate Professor, Beijing Normal University, 9/1996-9/2001.

Instructor, Beijing Normal University, 9/1990-9/1996.

Assistant Professor, Beijing Normal University, 9/1988-9/1990.

Honors:

Adviser, Bronze Prize, S. -T. Yau High School Science Award (Mathematics), 2018

Second Prize, Outstanding Achievement Award For Scientific Research In China Colleges And Universities, Ministry of Education, 2017

Outstanding Teacher, Beijing, 2017

Famous Teacher in Colleges and Universities, Beijing, 2016

Undergraduate Planned Textbook of National Higher Education, Ministry of Education, 2014

Ming-de Teacher Award, Ming-de Normal Education Foundation, 2014

Outstanding Doctoral Dissertation Advisor, Beijing, 2013

Special Allowance, the State Council of China, 2013

Fine Textbook of Higher Education, Beijing, 2013

Special Award of Outstanding Teacher, Baosteel Education Foundation, 2012

Outstanding Tutor of Ao-xiang Plan, Beijing, 2011 and 2010

Second Prize of National Teaching Achievement, Ministry of Education, 2009

First Prize of Beijing Teaching Achievement, Beijing, 2009

Grants:

National Science Foundation of China –1187102, 2019-2022.

National Science Key Foundation of China –11631002, 2017-2021.

National Science Foundation of China –11371060, 2014-2017.

National Science Foundation of China – 11071020, 2011-2013.

Doctoral Program Foundation of Education Ministry of China–20100003120005, 2011-2013.

Program for Changjiang Scholars and Innovative Research Team in University of China – IRT0908, 2010-2012.

China-U.S. Collaboration in Mathematical Research – 10811120285, 2008-2009.

Ky and Yu-Fen Fan Fund Award of the American Mathematical Society, 2007.

National Science Foundation of China – 10671022, 2007-2009.

Doctoral Program Foundation of Education Ministry of China – 20060027023, 2007-2009.

National Science Foundation of China – 10371011, 2004-2006.

Key Project of Education Ministry of China – 272009, 2004-2006.

Doctoral Program Foundation of Education Ministry of China – 20060027023, 2000-2002.

Journal Editorial Committees:

Editor-in-Chief, Journal of Beijing Normal University (Natural Science) , 9/2017-present.

Editor-in-Chief, Chinese Mathematical Magazine (Shu Xue Tong Bao), 12/2012-present.

Associate Editor-in-Chief, Advance in Mathematics (China), 5/2010-12/2018.

Vice Chairman, Journal of Mathematics Education, 7/2008-12/2013.

Member of Editorial board, Analysis in Theory and Applications, 7/2015-present.

Member of Editorial board, Journal of Beijing Normal University (Natural Science) , 1/2015-9/2017.

Member of Editorial board, Mathematics in Practice and Theory, 3/2006-present.

Services to Mathematics Community:

Member, Steering Committee for Professional Teaching of Mathematics, Ministry of Education, China, 1/2006- 3/2013 and 4/2013-9/2018, and 10/2018- present.

Member, Expert group for assessment of High School Entrance Examination (Mathematics), Ministry of Education, China, 5/2018-9/2019.

Member, Expert Group of Mathematics Education Development Research Center, Colleges and Universities in Beijing, China, 1/2018-present.

Tutor, Talent Program (Mathematics), China Association for Science and Technology, Ministry of Education, China, 1/2017-present.

Member, Reform Working Committee of College Entrance Examination (Mathematics), National Education Examinations Authority, China, 8/2016-present.

Member, Evaluation Group of High School Mathematics Curriculum Standards, Ministry of Education, China, 10/2015-present.

Member, Committee of Mathematics Experts of Chinese Advanced Placement Courses, Chinese Society of Education, 9/2015-present.

Member, Amendment Group of High School Mathematics Curriculum Standards, Ministry of

Education, China, 12/2014-present.

Vice chairman, Chinese Minority Mathematics Education Committee, 9/2014-present.

Member, Academic Committee of Beijing Mathematics Education Center, 1/2014-present.

Chief Supervisor, Beijing Mathematical Society, China, 1/2014-present.

Director, Education Committee of Chinese Mathematical Society, 1/2012-12/2015.

Member, Standing Committee of Chinese Mathematical Society, 11/2011-12/2015.

Vice-Director, Laboratory of Mathematics and Complex Systems, Ministry of Education, 5/2011-present.

Vice-President, Beijing Mathematical Society, China, 1/2006-1/2010 and 1/2010-12/2013.

Co-organizer, The 6th BNU-PDE Workshop and Minicourses, Beijing Normal University, Beijing, China, June 28-July 7, 2017.

Co-organizer, Workshop on Partial Differential Equations, Beijing Normal University, Beijing, China, January 24-25, 2015.

Co-organizer, Workshop on Partial Differential Equations, Beijing Normal University, Beijing, China, July 27-August 1, 2014.

Co-organizer, Workshop on Partial Differential Equations, Beijing Normal University, Beijing, China, December 28-29, 2013.

Co-organizer, The 14th Asian Technology Conference in Mathematics, Beijing Normal University, Beijing, China, December 17-21, 2009.

Co-organizer, International Conference on Harmonic Analysis and Partial Differential Equations with Applications, Beijing Normal University, Beijing, China, May 27-30, 2009.

Co-organizer, International Workshop in Fourier Analysis and Partial Differential Equations, Beijing Normal University, Beijing, China, December 15-17, 2008.

Co-organizer, International Conference on Partial Differential Equations and Applications, Beijing Normal University, Beijing, China, May 28-31, 2007.

Co-organizer, Symposium on Nonlinear Elliptic Equations and Variational Methods, Beijing Normal University, Beijing, China, July 4-7, 2005.

Service to Beijing Normal University:

Member, Academic Committee of School of Mathematical Sciences, 12/2002-present.

Director, Expert committee of training experimental program for top students of basic discipline (Sciences), 9/2011-present.

Inaugural Dean, School of Mathematical Sciences, 4/2004-7/2013.

Service to Society:

Jurors, Haidian District People 's Court, China, 7/2009-present.

President, Xie Yu Education Foundation, 2/2008-present.

Member, Beijing Municipal People's Congress, China, 11/2007-12/2013.

Member, Haidian District People's Congress, China, 12/2003-12/2012.

Book:

1. (with Shangzhi Wang) General high school textbooks. Mathematics. Compulsory first volume, Beijing Normal University Press, 2019.
2. (with Shangzhi Wang) General high school textbooks. Mathematics. Compulsory second volume, Beijing Normal University Press, 2019.
3. (with Haigang Li) Basis of Partial Differential Equations (Undergraduate), Higher Education Press, 2018.
4. (with Hui Zhang and Zhongwei Tang) Partial Differential Equations (Graduate), Beijing Normal University Press, 2014.
5. (with Rujin Zhu) Partial Differential Equations (Undergraduate), Beijing Normal University Press, 2011.

Journals (Since 2012):

1. (with Jingang Xiong and Ziwei Zhou) Existence of entire solutions of Monge–Ampere equations with prescribed asymptotic behavior, Calc. Var. Partial Differential Equations, https://doi.org/10.1007/s00526-019-1639-4
2. (with Yimei Li) Liouville theorem and isolated singularity of fractional Laplacian system with critical exponents, Nonlinear Analysis, https://doi.org/10.1016/j.na.2019.111636
3. (with Yimei Li) Local behavior of solutions to fractional Hardy–Hénon equations with isolated singularity. Ann. Mat. Pura Appl. 198 (2019), 1, 41–59.
4. (with Yimei Li) Fractional Hardy–Hénon equations on exterior domains. J. Differential Equations, 266 (2019), 1153–1175.
5. (with Wei Zhang) A Calabi theorem for solutions to the parabolic Monge-Ampère equation with periodic data, Annales de l'Institut Henri Poincare / Analyse non lineaire, 2017.
6. (with Wei Zhang and Bo Wang) An extension of Jörgens–Calabi–Pogorelov theorem to parabolic Monge–Ampère equation, Calc. Var. Partial Differential Equations, 57(2018), 57-90.
7. (with Yongjiang Zheng, Qiyi Zhao, Tianshou Zhou and Xiaoqiang Sun) A Spatio-temporal Model of Macrophage-mediated Drug Resistance in Glioma Immunotherapy, Molecular Cancer Therapeutics, 2018: molcanther.0634.2017.
8. (with Yifei Wu) Global well-posedness for the periodic generalized Korteweg–de Vries equations, Indiana Univ. Math. J. 66 (2017), 1797–1825.
9. (with Hongjie Ju and Haigang Li) Optimal boundary gradient estimates for Lamé systems with partially infinite coefficients, Adv. Math., 314 (2017), 583-629.
10. (with Xu Cao) Hessian equations on exterior domain, J. Math. Anal. Appl., 448 (2017), 22-43.
11. (with Haigang Li and Yanyan Li) Gradient estimates for solutions of the Lame system with partially infinite coefficients in dimensions greater than two, Adv. Math. 305 (2017), 298-338.

12. (with Xiaoqiang Sun, Zhuhong You, Xing Chen, Jun Cui, Modeling of signaling crosstalk -mediated drug resistance and its implications on drug combination, Oncotarget, 7 (2016), 63995-64006.
13. (with Meisheng Li) An extension to Bernstein theorem on minimal surface equation (Chinese), SCIENTIA SINICA Mathematica, 46 (2016), 513-522.
14. (with Haigang Li and Lei Zhang) Global solutions and exterior Dirichlet problem for Monge-Ampere equation in R^2, Differential and Integral Equations, 29 (2016), 563- 582.
15. (with Xiaoqiang Sun and Yongzhao Shao) Mathematical modeling of therapy-induced cancer drug resistance, Scientific Reports, March 1, 2016: 6:22498, DOI: 10.1038/ srep22498.
16. (with Nguyen Lam and Guozhen Lu) Polyharmonic equations with critical exponential growth in the whole space R^n, Discrete and Continuous Dynamical Systems, 36 (2015), 577-600.
17. (with Qianqian Song, H.Wang, Ashok K. Pullikuth, K.Li, L.Miller and Xiaobo Zhou) Systems biology approach to studying proliferation - dependent prognostic subnetworks in breast cancer, Scientific Reports, August 10, 2015: 5:12981, 14pp.
18. (with Bo Wang) Over-determined problems for k-Hessian equations in ring-shaped domains, Nonlinear Analysis, 127 (2015), 143-156.
19. (with Bo Wang) Asymptotic behavior on a kind of parabolic Monge-Ampere equation, Journal of Differential Equations, 259 (2015), 344-370.
20. (with Haigang Li and Yanyan Li) Gradient estimates for solutions of the Lame system with partially infinite coefficients, Arch. Rational Mech. Anal., 215 (2015), 307-351.
21. (with Haigang Li and Lei Zhang) Monge-Ampere equation on exterior domains, Calculus of Variations and PDE's, 52 (2015), 39-63.
22. (with Haigang Li and Yanyan Li) On the exterior Dirichlet problem for Hessian equations, Transactions of the American Mathematical Society, 366 (2014), 6183-6200.
23. (with Bo Wang and Haigang Li) Determination of the insulated inclusion in conductivity problem and related Eshelby conjecture, Journal of Differential Equations, 257 (2014), 4503-4524.
24. (with Bo Wang) Mirror symmetry for a Hessian over-determined problem and its generalization, Communications on Pure and Applied Analysis, 13 (2014), 2305-2316.
25. (with Haigang Li) The exterior Dirichlet problem for fully nonlinear elliptic equations related to the eigenvalues of the Hessian, Journal of Differential Equations, 256 (2014), 2480-2501.
26. (with Xiaoqiang Sun, Kyle C. Nelson, King Chuen Li, George Kulik and Xiaobo Zhou) Systems Modeling of Anti-apoptotic Pathways in Prostate Cancer: Psychological Stress Triggering Synergism Pattern Switch in Drug Combination Therapy. PLOS Computational Biology. 9(12), 2013: e1003358, 13 pp.
27. (with Wei Zhang) Regularity of very weak solutions for nonhomogeneous elliptic equation, Commun. Contemp. Math. 15 (2013), 1350012, 19 pp.
28. (with Hua Tan, Kun Wei and Xiaobo Zhou) In silico study on multidrug resistance conferred by I223R/H275Y double mutant neuraminidase, Molecular BioSystems, 9 (2013),

2764-2774.

29. (with Jingang Xiong) Sharp regularity for elliptic systems associated with transmission problems, Potential Anal., 39 (2013), 169-194.
30. (with Haigang Li) The exterior Dirichlet problem for special Lagrangian equations in dimensions n\leq4, Nonlinear Anal., 89 (2013), 219-229.
31. (with Hongjie Ju) On the exterior Dirichlet problem for Monge-Ampere equations, J. Math. Anal. Appl., 405 (2013), 475-483.
32. (with Xiaoqiang Sun, Yunqing Kang, Yuanyuan Zhang, Yunzhi Yang and Xiaobo Zhou) Modeling vascularized bone regeneration within a porous biodegradable CaP scaffold loaded with growth factors, Biomaterials, 34 (2013), 4971-4981.
33. (with Haigang Li) Existence and stability theory of compressible rotating stars (Chinese), Adv. Math. (China), 42 (2013), 1-10.
34. (with Chong Wang) Necessary and sufficient conditions on existence and convexity of solutions for Dirichlet problems of Hessian equations on exterior domains, Proc. Amer. Math. Soc., 141 (2013), 1289-1296.
35. (with Hua Tan, Jing Fan, Jennifer G Dy and Xiaobo Zhou) A computational model for compressed sensing RNAi cellular screening, BMC Bioinformatics, 2012, 13:337, 13 pages.
36. (with Haigang Li) Asymptotic estimates for slowly rotating Newtonian stars. Front. Math. China, 7 (2012), 1141-1149.
37. (with Haigang Li) On the exterior Dirichlet problem for Monge-Ampere equation in dimension two, Nonlinear Analysis, 75 (2012), 6448-6455.
38. (with Xiaoqiang Sun, Le Zhang, Hua Tan, Costas Strouthos and Xiaobo Zhou) Multi-scale agent-based brain cancer modeling and prediction of TKI treatment response: Incorporating EGFR signaling pathway and angiogenesis, BMC Bioinformatics, 2012, 13:218, 14 pages.
39. (Xiaoqiang Sun, Jing Su, Tao Peng, Le Zhang, Yuanyuan Zhang, Yunzhi Yang and Xiaobo Zhou) Cytokine combination therapy prediction for bone remodeling in tissue engineering based on the intracellular signaling pathway, Biomaterials, 33 (2012), 8265-8276.
40. (with Xiaohu Ji and Haigang Li) Existence and nonexistence theorem for entire subsolutions of k-Yamabe type equations, J. Differential Equations, 253 (2012), 2140-2160.
41. (with Hongjie Ju and Haiyu Jian) Existence for translating solutions of Gauss curvature flow on exterior domains, Nonlinear Anal., 75 (2012), 3629-3640.
42. (with Limei Dai) Multi-valued solutions to fully nonlinear uniformly elliptic equations, J. Math. Anal. Appl., 389 (2012), 314-321.
43. (with Wei Zhang) Regularity of very weak solutions for elliptic equation of divergence form, J. Funct. Anal., 262 (2012), 1867-1878.

Mentored Postdoc:

Samy Bahoura, 1/2007-12/2007.

Hongjie Ju, 9/2010-7/2012.

Ph.D. Students:

Limei Dai (2004-2007)

Rongli Huang (2005-2008)

Haigang Li (2006-2009), joint supervision with Prof. Yanyan Li (Rutgers University)

Hua Tan (2008-2011), joint supervision with Prof. Xiaobo Zhou (Cornell University)

Jingang Xiong (2009-2012), joint supervision with Prof. Yanyan Li (Rutgers University)

Wei Zhang (2011-2014)

Xiaoqiang Sun (2011-2014), joint supervision with Prof. Xiaobo Zhou (Cornell University)

Bo Wang (2013-2016), joint supervision with Prof. Yanyan Li (Rutgers University)

Qianqian Song (2014-2017), joint supervision with Prof. Xiaobo Zhou (Weak Forest University)

Xu Cao (2014-2017)

Chong Wang (2015-2018)

Yimei Li (2017-)

Xinwei He (2017-)

Ziwei Zhou (2018-)

Zixiao Liu (2019-)