

YANYAN LI

Birthdate: 26 December 1961 Place: Beijing, P.R. China

Education:

Ph.D., Courant Inst. of Mathematical Sciences, New York University, 1988

Positions:

Professor II, Rutgers University, 7/2000– present

Professor I, Rutgers University, 7/97– 7/2000

Associate Professor, Rutgers University, 7/93 – 6/97

Assistant Professor, Rutgers University, 9/90 – 6/93

Instructor, Princeton University, 9/88 – 6/90

Guest Positions:

Chang Jiang Visiting Chair Professor, Beijing Normal University, China, June 2005 – May 2009.

Jingshi Scholar, Beijing Normal University, China, June 2004 – May 2005.

Guest Professor, University of Science and Technology of China, April 99 – present

Visiting Positions:

Professeur Invité, University of Paris VI, France, June 2-July 1, 2009.

Professeur Invité, University of Paris VI, France, June 8-July 7, 2007.

Professeur Invité, University of Paris VI, France, May 20-June 19, 2005

Visiting Member, Institute for Advanced Study, 9/03 - 12/03

Professeur Invité, University of Paris VI, France, May 19-June 18, 2002

Professeur Invité, Institut Universitaire de France, France, May 2001

Professeur Invité, University of Paris VI, France, Nov. 16 – Dec. 15, 99

Professeur Invité, University of Paris VI, France, June 98

Visiting Professor, Scuola Normale Superiore, Pisa, Italy, May 97

Professeur Invité, University of Paris VI, France, May 96

Professeur Invité, University of Metz, France, June 93

Visiting Member, Institute for Advanced Study, 1/94-6/94

Visiting Member, Institute for Advanced Study, 9/89 - 6/90

Honors:

45-minute invited talk, to present the works of Louis Nirenberg (the winner of the Chern Medal Award), International Congress of Mathematicians, 2010, Hyderabad, India.

Rutgers Board of Trustees Award for Excellence in Research, 2008.

45-minute Invited Lecture, International Congress of Mathematicians, 2002, Beijing.

Alfred P. Sloan Research Fellow, 93-95.

Rutgers Board of Trustees Research Fellowship for Scholarly Excellence, 93.

Henry Rutgers Research Fellowship, Rutgers University, 90 – 92.

K.O. Friedrichs Prize for Outstanding Dissertation, Courant Institute, 89.

Alfred P. Sloan Doctoral Dissertation Fellowship, 87 – 88.

Journal Editorial Committees:

Editor, International Mathematics Research Notices (IMRN), 2008–

Member of Editorial Board, Discrete and Continuous Dynamical Systems – Series A, 2004 –

Member of Editorial Board, Differential and Integral Equations, 2001–

Member of Editorial Board, Nonlinear Differential Equations and Applications, 2001–

Member of Editorial Board, J. Partial Differential Equations, 2001–

Member of Editorial Board, Acta Mathematica Scientia, 1996–

Associate Editor, Communications in Mathematical Analysis, 2008–

Member of Editorial Board, Advanced Nonlinear Studies, 2003– 2007

Member of the Board of Editors, Communications on Pure and Applied Analysis, 2001– 2004

Service to the Mathematics Community:

Member of Scientific Committee, International Workshop on PDE and related topics, Wuhan, China, October 26-30, 2008.

Member of Scientific Committee, International Conference on Partial Differential Equations and Their Numerical Analysis, In honor of Prof. Xiaqi Ding for his 80th birthday, Institute of Applied Mathematics, AMSS Chinese Academy of Sciences, Beijing, P.R. China, July 27-29, 2007.

Member of Scientific Committee, 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 and Academia Sinica, Beijing, China, July 4-6, 2005.

Co-organizer, Mini-symposium on nonlinear elliptic equations, Beijing University, Beijing, China, July 2, 2004.

Co-organizer, Conference on Partial Differential Equations and Several Complex Variables, Wuhan University, Wuhan, China, June 9-13, 2004.

Co-organizer, Workshop on Singularities and Concentration Phenomena in Nonlinear Elliptic and Parabolic PDE's, Oberwolfach, Germany, Jan. 27-Feb. 2, 2002.

Member of Fan Fund Committee of AMS, May 24, 2000 to Jan. 31, 2004 (Chair, Jan. 03-Jan. 04).

Member of Committee on Committees of AMS, 1999-2000.

Co-organizer, Session on Nonlinear Elliptic and Parabolic Partial Differential Equations, First Joint International Meeting of the AMS and the Hong Kong Mathematical Society, Hong Kong, P. R. China, December 13-17, 2000.

Member of Scientific Committee, International Conference on Partial Differential Equations and Their Computational Methods, June 15-21, 2000, Lushan, Jiangxi, P.R. China.

Co-organizer, Summer program on "Geometric Analysis and PDEs", Morningside Institute of Academia Sinica, 2000.

Member of Physics, Mathematics and Astronomy review panel, Texas Advanced Research Program and Advanced Technology Program (ARP/ATP), 1999.

Co-organizer, Session on Geometric Properties of Nonlinear Elliptic PDE, AMS meeting, Providence, RI, October 2-3, 1999.

Member of AMS-MAA Joint Program Committee for the 104th Annual meeting of the AMS and the 81st Annual meeting of the MAA at Baltimore, 1998

Member of Eastern Section Program Committee of AMS, 2/97-2/99 (Chair 98).

Organizer, Session on PDEs in Geometry, The 8th International Conference on Differential Equations and Mathematical Physics, Birmingham, Alabama, March 99.

Organizer, Session on Nonlinear Partial Differential Equations, AMS meeting, Philadelphia, April 98.

One of the Workshop Leaders, Workshop on Isometric Embedding of Surfaces, The Chinese University of Hong Kong, December, 1997.

Member of Scientific Committee, Institute of Mathematics, JeJiang University, China, 95-98.

Organizer, Session on Partial Differential Equations, AMS meeting, Brooklyn, April 94.

Member of Organizing Committee, Conformal Geometry Session, AMS-IMS-SIAM Joint Summer Research Conference, Seattle, June 93.

Service to Rutgers University:

Director, Center for Nonlinear Analysis, Rutgers University, 2010 – present.

Member of D'Atri Lectures Committee, Mathematics Department.

Member of Personnel Planning Committee, 2009-2012.

Member of Graduate Committee, 2006-2008.

Member of Personnel Planning Committee, 2005-2007.

Co-organizer of Nonlinear Analysis and PDEs seminar, Mathematics Department.

Co-organizer of Joint Princeton-Rutgers Seminar on Geometric PDEs, 2011 – present.

Organizer of Weekly Student Seminar in Nonlinear Partial Differential Equations and Applications.

Member of the Physical Sciences Area Committee of the Graduate School-New Brunswick, 2001-2003.

Member of Graduate Admissions Committee, Mathematics Department, 2001.

Member of Committee on Appointment and Promotion in the Mathematical and Natural Sciences, 1998-2000.

Member of Personnel Planning Committee, Mathematics Department, 97-2000.

Graduate Committee Member, Mathematics Department, 98-99.

Graduate Committee Member, Mathematics Department, 94-95.

Invited talks:

Workshop on Geometric PDEs, Institut Henri Poincare, Paris, France, November 5-9, 2012.

Workshop “Mostly maximum principle”, La Sapienza Universita di Roma, Rome, Italy, Sept. 12-14, 2012.

17th Brazil School of Differential Geometry, Manaus, Amazonas, Brazil, July 11-20, 2012.

Geometric and Nonlinear Partial Differential Equations, Xi-An Jiaotong University, Xi-An, China, June 12-16, 2012.

International Conference on Nonlinear Partial Differential Equations and Applications, Zhejiang University, Hangzhou, China, June 3-9, 2012.

5th Symposium on Analysis and PDEs, Purdue University, May 20-23, 2012.

Minicourse, Concentration month on fully nonlinear elliptic PDEs, University of Chicago, Chicago, May 7-18, 2012.

Nineteenth Southeast Geometry Seminar, University of Alabama, Birmingham, December 12, 2011.

IV EBED - Brazilian School of Differential Equations Joao Pessoa, August 22-26, 2011.

International Meeting on Differential Geometry and Partial Differential Equations, celebrating Gervasio Colares's 80th Birthday, Universidade Federal do Ceara, Fortaleza, August 15-19, 2011.

Mini-course, JISD 2011: Workshop on Dynamical Systems and EDP's, June 27-July 1, 2011, Universitat Politecnica de Catalunya, Barcelona, Spain.

Workshop "Nonlinear PDE in Valparaiso", Valparaiso, Chile, Jan. 10-14, 2011.

45-minute invited lecture, Fifth International Congress of Chinese Mathematicians, Beijing, China, December 17-22, 2010.

Sino-Chilean Conference on Nonlinear PDEs and Nonlinear Analysis, Wuhan University, China, December 6-10, 2010.

45-minute invited talk, on the work of the winner of the Chern Medal Award, International Congress of Mathematicians, 2010, Hyderabad, India.

Workshop on Geometric Analysis, Lanzhou, China, July 31-August 7, 2010.

International Conference on Partial Differential Equations, in honor of the birth of 100 years of Professor Xinmou Wu, Academia Sinica, Beijing, China, July 16-18, 2010.

Mini-course, RSME School LLuis Santalo "Geometric Analysis", Universidad de Granada, Granada, Spain, June 28 - July 2, 2010.

Scaling and Liouville theorems in studies of PDEs, special session, The 8th AIMS Conference on Dynamical Systems and Differential Equations, Dresden, Germany, May 25 - 28, 2010.

Advanced PDE and Application — in honor of the 80th birthday of Professor Qi Minyou (M.Y. CHI), Wuhan University, Wuhan, China, January 8-10, 2010.

Conference for Elliptic and Parabolic PDEs, Daejeon, Korea, Nov. 5-7, 2009.

Variational and Topological Methods in Nonlinear Phenomena, dedicated to the 60th birthday of V. Benci, San Antonio, Texas, September 24-26, 2009.

Workshop on Partial Differential Equations, Oberwolfach, Germany, August 2-8, 2009.

International Conference of Mathematics, Taida Institute of Mathematical Sciences, Taipei, Taiwan, July 6 - July 10, 2009.

International Conference on Variational Methods, Chern Institute of Mathematics and Nankai University, Tianjin, China, May 18-22, 2009.

International Conference on Geometrical aspects of PDE's, CIRM, Marseille, France, March 2-6, 2009.

Workshop on Geometric Partial Differential Equations, Institute for Advanced Study, Princeton, New Jersey, February 23-27, 2009.

Harvey Mudd College Mathematics Conference on Nonlinear Functional Analysis, Harvey Mudd College, Claremont, California, October 25, 2008.

Special session on isoperimetric problems and PDE, AMS meeting, Courant Institute, March 15-16, 2008.

Plenary talk, Workshop on Variational Methods for Nonlinear PDE and their Applications, Technion, Haifa, Israel, March 5-10, 2008.

International Conference on Riemann-Finsler Geometry, Indianapolis, USA, February 14-16, 2008.

Workshop on Variational Methods and Related Topics, Beijing, China, December 28-29, 2007.

The Tenth International Congress of Chinese Mathematicians, December 17-22, 2007, Hangzhou, China.

Principal Speaker, Seventh Mississippi State - UAB Conference on Differential Equations & Computational Simulations, Birmingham, Alabama, November 1-3, 2007.

First Chile-Japan Workshop on Nonlinear Elliptic and Parabolic PDE, October 23-26, 2007, Santiago, Chile.

Workshop on loss of compactness in nonlinear PDE: Recent trends, Banff International Research Station, Canada, August 26-31, 2007.

Plenary talk, Equadiff 2007, Vienna University of Technology, Vienna, August 5-11, 2007.

12th National Summer School in Mathematics for Graduate Students, July 21 - August 19, 2007, Wuhan University, China.

International Conference on Partial Differential Equations and Their Numerical Analysis, In honor of Prof. Xiaqi Ding for his 80th birthday, Institute of Applied Mathematics, AMSS Chinese Academy of Sciences, Beijing, P.R. China, July 27-29, 2007.

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

International Conference on Variational Methods, Nankai University, Tianjin, China, May 20-26, 2007.

59th Midwest Partial Differential Equations Seminar, University of Kentucky in Lexington, Kentucky, March 24-25, 2007.

Tenth Southeast Geometry Seminar, Emory University, Atlanta, December 13, 2006.

Workshop on Nonlinear Differential Equations, Como, Italy, September 11-15, 2006.

Plenary talk, International Conference on Analysis and Its Applications, University of Science and Technology of China and City University of Hong Kong, June 28 - July 1, 2006.

Plenary talk, International Conference in Partial Differential Equations, Complex Analysis and Differential Geometry in honor of M. Salah Baouendi, University of Notre Dame, June 11-16, 2006.

Advances in Partial Differential Equations, in honor of the 80th birthdays of Peter D. Lax and Louis Nirenberg, Toledo, Spain, June 7-10, 2006.

International Conference on Calculus of Variations, PDEs and Nonlinear Analysis, in honor of the 70th birthday of K.C. Chang, Beijing University, China, May 22-26, 2006.

Workshop on Partial Differential Equations and Applications, University of Florida, Gainesville, Nov. 13-15, 2005.

A Conference in Honor of Peter Lax and Louis Nirenberg, on the occasion of their 80th birthday, Courant Institute, New York University, October 28-29, 2005.

Introductory Workshop in Nonlinear Elliptic Equations and Its Applications, MSRI, Berkeley, August 15-19, 2005.

Mathematics: Opportunity and Challenge, Wei-Hai, China, July 25-29, 2005.

Symposium on Nonlinear Elliptic Equations and Variational Methods, Beijing Normal University and Academia Sinica, Beijing, China, July 4-6, 2005.

Conference in honor of Jim Serrin on the occasion of the awarding of the title of Doctor Honoris Causa of Universite Francois Rabelais, Tours, France, June 6-8, 2005.

International Conference on Variational Methods in Nonlinear Analysis, dedicated to Louis Nirenberg and Giovanni Prodi on the occasion of their 80th birthday, Erice, Italy, April 14-22, 2005.

Plenary talk, Americas VI meeting on Non Linear Analysis and Differential Equations, Santiago, Chile, January 17-21, 2005.

International Symposium on Variational Methods and Nonlinear Differential Equations, to celebrate the Sixtieth Birthday of Antonio Ambrosetti, Rome, January 10-14, 2005.

The 7th Pacific Rim Geometry Conference, Shanghai, China, December 13-16, 2004.

A mini-course, Workshop on Fully Nonlinear Equations, Nankai Institute of Mathematics, Tianjin, China, Nov. 15-19, 2004.

Conference in Nonlinear Analysis, in Honor of Haim Brezis, on the Occasion of His 60th Birthday, Paris, June 21-25, 2004.

Talk and a Mini-course, Conference on Partial Differential Equations and Several Complex Variables, Wuhan University, Wuhan, China, June 9-13, 2004.

Workshop on New Developments on Variational Methods and their Applications, Banff International Research Station for Innovation and Discovery, Canada, May 15-20, 2004.

Peking University Symposium on Mathematics, Beijing, China, October 23-25, 2003.

Workshop on Recent Developments in Several Complex Variables and Partial Differential Equations, Serra Negra, Brazil, August 4-8, 2003.

Fully Nonlinear equations in geometry, Regional Conference Series in Mathematics, University of Notre Dame, June 23-27, 2003.

Symposium in Analysis and PDEs, Purdue University, May 23-26, 2003.

Workshop on Calculus of Variations, Mathematical Research Center, University of Warwick, England, UK, May 15-18, 2003.

Frontiers in Mathematics Lectures, Texas A&M University, March 2003.

A Mini-course, Pan American Advanced Studies Institute on Partial Differential Equations, Inverse Problems and Nonlinear Analysis, Santiago, Chile, January 6-17, 2003.

A Mini-course, Thematic Programme on Nonlinear Analysis and Differential Equations, Istituto Nazionale di Alta Matematica, Milan, Italy, Fall 2002.

45-minute invited lecture, International Congress of Mathematicians, Beijing, August 20-28, 2002.

Session on Elliptic Partial Differential Equations, First Joint International Meeting between the American Mathematical Society and the Unione Matematica Italiana, Pisa, Italy, June 12-16, 2002.

International Conference on Caccioppoli Mathematical Heritage, Accademia dei Lincei, Rome, Italy, June 3-4, 2002.

Workshop on Nonlinear Models and Analysis, Vienna, Austria, May 20-24, 2002.

Variational and Viscosity Methods in Partial Differential Equations, Austin, Texas, April 17-20, 2002.

45-minute invited lecture, Second International Congress of Chinese Mathematicians, Taipei, December 17-22, 2001.

Workshop on Geometric Evolution and Fully Nonlinear PDEs, Isaac Newton Institute for Mathematical Sciences, Cambridge, U.K., March 26-April 6, 2001.

Conference on Solutions of Partial Differential Equations in Periodic Media (in connection with Arkansas Spring Lecture Series), University of Arkansas, Fayetteville, Arkansas, April 26-28, 2001.

Conference on Partial Differential Equations in Honor of Louis Nirenberg, National Center of Theoretical Sciences, Hsinchu, Taiwan, Sept. 8-11, 2000.

International Workshop in Geometric Analysis, Academia Sinica, Beijing, China, August 2000.

Joint Chile-USA Workshop on Nonlinear Analysis, Vina del Mar, Chile, Jan. 10-14, 2000.

Talk at the Joint AMS-MAA-SIAM Meeting, Washington D.C., Jan. 19-22, 2000.

Talk at the AMS Meeting, Providence, October, 99.

A series of 6 hours talk at the Morningside Institute of Academia Sinica, June 99.

Invited talk at the Second International Conference on Nonlinear Analysis, Tianjin, China, June 14-19, 99.

Invited talk at the International Conference on Topological and Variational Methods in Nonlinear Analysis, Cuernavaca, Mexico, February 21-27, 99.

Invited talk at the National Academy of Sciences Colloquium on Nonlinear Partial Differential Equations and Applications, Irvine, January, 99.

45-minute invited lecture, First International Congress of Chinese Mathematicians, Beijing, China, December 12-16, 98.

Invited talk at the International Conference in Honor of Professor L. Nirenberg, Trieste, Italy, October, 98.

Invited talk at the International Conference on Partial Differential Equations and Related Topics, Mission Beach, Queensland, Australia, September, 98.

Invited address at the AMS meeting, Philadelphia, April, 98.

Two talks at the Workshop on Isometric Embeddings of Surfaces, Hong Kong, December, 97.

Talk at the AMS meeting, Milwaukee, Wisconsin, October, 97.

Talk at the International Workshop on Partial Differential Equations, Beijing, China, August, 97.

A series of 12 invited lectures at the Morningside Institute of Academic Sinica, Beijing, China, August, 97.

One hour invited lecture, First Tian Yuan Conference in Mathematical Sciences (in honor of S.S. Chern), Berkeley, June, 97.

Talk at the International Workshop on Positive Solutions of Elliptic and Parabolic Differential Equations, Technion, Haifa, Israel, May, 97.

Five talks as one of the principal lecturers at the Second School on Nonlinear Functional Analysis and Applications to Differential Equations, Trieste, Italy, April, 97.

Talk at the International Conference on Nonlinear Differential Equations and Applications, Tata Institute of Fundamental Research, August, 96.

Talk at the Second World Congress of Nonlinear Analysis, Athens, Greece, July, 96.

Two talks as one of the main invited speakers at the Conference on Partial Differential Equations, Cortona, Italy, May, 96.

Talk at the AMS meeting, Lawrenceville, New Jersey, October, 96.

Talk at the AMS meeting, Boston, October, 95.

Talk at the AMS meeting, Los Angeles, November, 95.

Talk at the Conference on Partial Differential Equations, Brazil, June, 95.

Talk at the Workshop on Geometric Analysis, Tsing-Hua University, Beijing, June 95.

Talk at the Mini-conference on Nonlinear Analysis, Australia, June 94.

Talk at the AMS meeting, Brooklyn, April 94.

PUBLICATIONS

Book:

1. *Advances in Nonlinear Partial Differential Equations and Related Areas*, G.Q. Chen, Y.Y. Li, X. Zhu, and D. Cao, editors, World Scientific, Singapore, 1998.

Journals:

1. Degree theory for second order nonlinear elliptic operators and its applications, *Comm. in PDE* 14 (1989), 1541-1578.
2. Scattering by a potential using hyperbolic methods (with A. Bayliss and C.S. Morawetz), *Mathematics of Computation* 52 (1989), 321-338.
3. Existence of many positive solutions of semilinear elliptic equations on annulus, *J. Differential Equations* 83 (1990), 348-367.
4. Nonautonomous nonlinear scalar field equations, *Indiana Univ. Math. J.* 39 (1990), 283-301.
5. Some existence results of fully nonlinear elliptic equations of Monge-Ampere type, *Comm. Pure Appl. Math.* 43 (1990), 233-271.
6. Existence of multiple solutions of semilinear elliptic equations in R^N , in *Variational Methods*, Editors, H. Berestycki, J.M. Coron and I. Ekeland, Birkhäuser, (1990), 133-159.
7. On a min-max procedure for the existence of a positive solution for certain scalar field equations in R^N (with A. Bahri), *Revista Matemática Iberoamericana* 6 (1990), 1-15.
8. Interior gradient estimates for solutions of certain fully nonlinear elliptic equations, *J. of Differential Equations* 90 (1991), 172-185.

9. On uniformly rotating stars, Arch. Rat. Mech. Anal. 115 (1991), 367-393.
10. Nonexistence of axially symmetric, stationary solution of Einstein Vacuum Equation with disconnected symmetric event horizon (with G. Tian), Manuscripta Mathematica 73 (1991), 83-89.
11. Existence of infinitely many critical values of some nonsymmetric functionals, J. Differential Equations 95 (1992), 140-153.
12. Existence of solutions for semi-linear elliptic equations with indefinite linear part (with S. Alama), J. of Differential Equations 96 (1992), 89-115.
13. Regularity of harmonic maps with prescribed singularities (with G. Tian), Comm. Math. Phys. 149 (1992), 1-30.
14. Continuity of solutions of uniformly elliptic equations in R^2 (with S. Chanillo), Manuscripta Mathematica 77 (1992), 415-433.
15. On "multibump" bound states for certain semilinear elliptic equations (with S. Alama), Indiana Univ. Math. J. 41 (1992), 983-1026.
16. On prescribing scalar curvature problem on S^3 and S^4 , C.R. Acad. Sci. Paris 314 (1992), 55-59.
17. Prescribing scalar curvature on S^n and related problems, C.R. Acad. Sci. Paris 317 (1993), Série I, 159-164.
18. Harmonic maps with prescribed singularities (with G. Tian), Proceeding of Symposia in pure math. (edited by Greene and Yau) 54 (1993), 317-326.
19. On $-\Delta u = K(x)u^5$ in R^3 , Comm. Pure Appl. Math. 46 (1993), 303-340.
20. Nonautonomous nonlinear scalar field equations in R^2 (with C. Li), J. Differential Equations 103 (1993), 421-436.
21. Prescribing scalar curvature on S^3 , S^4 and related problems, J. Functional Analysis 118 (1993), 43-118.
22. A sup + inf inequality for some nonlinear elliptic equations involving exponential nonlinearities (with H. Brezis and I. Shafrir), J. Functional Analysis 115 (1993), 344-358.
23. The Weyl problem with nonnegative Gauss curvature (with P. Guan), J. Diff. Geom. 39 (1994), 331-342.
24. On diameters of uniformly rotating stars (with S. Chanillo), Comm. Math. Phys. 166 (1994), 417-430.
25. Blow up analysis for solutions of $-\Delta u = Ve^u$ in dimension two (with I. Shafrir), Indiana Univ. Math. J. 43 (1994), 1255-1270.
26. On Nirenberg's problem and related topics, Topological Methods in Nonlinear Analysis 3 (1994), 221-233.

27. On a variational problem with lack of compactness: the topological effect of the critical points at infinity (with A. Bahri and O. Rey), *Calculus of Variations and PDEs* 3 (1995), 67-93.
28. Prescribing scalar curvature on S^n and related problems, Part I, *J. Diff. Equations* 120 (1995), 319-410.
29. Uniqueness theorems through the method of moving spheres (with M. Zhu), *Duke Math. J.* 80 (1995), 383-417.
30. The Nirenberg problem in a domain with boundary, *Topological Methods in Nonlinear Analysis* 6 (1995), 309-329.
31. Multiple point blow up phenomenon in scalar curvature equations on spheres of dimension greater than three, in Birkhauser, *Topics in Geometry*, ed. S. Gindikin, 285-293, 1996.
32. Degenerate elliptic systems and applications to Ginzburg-Landau type equations, Part I (with Z.C. Han), *Calculus of Variations and PDEs* 4 (1996), 171-202.
33. Prescribing scalar curvature on S^n and related problems, Part II: Existence and compactness, *Comm. Pure Appl. Math.* 49 (1996), 541-597.
34. A note on the Kazdan-Warner type condition (with Z.C. Han), *Ann. Inst. Henri Poincaré, Analyse nonlinéaire* 13 (1996), 283-292.
35. Monge-Ampère Equations on Riemannian Manifolds (with B. Guan), *J. Differential Equations* 132 (1996), 126-139.
36. Group invariant convex hypersurfaces with prescribed Gauss-Kronecker curvature, *Contemporary Mathematics* 205 (1997), 203-218.
37. $C^{1,1}$ estimates for solutions of a problem of Alexandrov (with P. Guan), *Comm. Pure Appl. Math.* 50 (1997), 797-819.
38. Sharp Sobolev trace inequalities on Riemannian manifolds with boundaries (with M. Zhu), *Comm. Pure Appl. Math.* 50 (1997), 449-487.
39. On a singularly perturbed elliptic equation, *Advances in Differential Equations* 2 (1997), 955-980.
40. On a singularly perturbed equation with Neumann boundary condition, *Comm. in Partial Differential Equations* 23 (1998), 485-545.
41. Sharp Sobolev inequalities involving boundary terms (with M. Zhu), *Geometric And Functional Analysis* 8 (1998), 59-87.
42. The Dirichlet problem for singularly perturbed elliptic equations (with L. Nirenberg), *Comm. Pure Appl. Math.* 51 (1998), 1445-1490.
43. On the best constant in the Sobolev inequality (with T. Aubin), *C.R. Acad. Sci. Paris* 328 (1999), 135-138.

44. Yamabe type equations on three dimensional Riemannian manifolds (with M. Zhu), *Commun. Contemp. Math.* 1 (1999), 1-50.
45. A Harnack type inequality: the method of moving planes, *Comm. Math. Phys.* 200 (1999), 421-444.
46. On the best Sobolev inequality (with T. Aubin), *J. Math. Pures Appl.* 78 (1999), 353-387.
47. An a priori bound for co-dimension one isometric embeddings (with G. Weinstein), *American Journal of Mathematics* 121 (1999), 945-965.
48. The Yamabe problem on manifolds with boundaries: Existence and compactness results (with Z.C. Han), *Duke Math. J.* 99 (1999), 489-542.
49. Degree and Sobolev spaces (with H. Brezis, P. Mironescu and L. Nirenberg), *Topological Methods in Nonlinear Analysis* 13 (1999), 181-190.
50. Best Sobolev inequalities on Riemannian manifolds, *AMS/IP Studies in Advanced Mathematics* 16 (2000), 273-278.
51. Best Sobolev inequalities on Riemannian manifolds, *AMS/IP Studies in Advanced Mathematics* 16 (2000), 273-278.
52. Topology and Sobolev spaces (with H. Brezis), *C.R. Acad. Sci. Paris*, t. 331, Série 1, 2000, 1-6.
53. The existence of conformal metrics with constant scalar curvature and constant boundary mean curvature (with Z.C. Han), *Comm. Anal. Geom.* 8 (2000), 775-836.
54. Gradient estimates for solutions of divergence form elliptic equations with discontinuous coefficients (with M. Vogelius), *Arch. Rat. Mech. Anal.* 153 (2000), 91-151.
55. A variational result in a domain with boundary (with L. Nirenberg), *Methods and Applications of Analysis* 7 (2000), 489-494.
56. A note on the scalar curvature problem in the presence of symmetries (with A. Ambrosetti and A. Malchiodi), *Ricerche di Matematica*, Vol. LXIX, 2000, Supplemento, 169-176.
57. Gluing approximate solutions of minimum type on the Nehari manifold (with Z.Q. Wang), *USA-Chile Workshop on Nonlinear Analysis*, *Electron. J. Diff. Eqns.*, Conf. 06, 2001, pp. 215-223.
58. *Fine Analysis of Blow up and Applications*, First International Congress of Chinese Mathematicians (Beijing, 1998), 411-421, *AMS/IP Stud. Adv. Math.*, 20, Amer. Math. Soc., Providence, RI, 2001.
59. Topology and Sobolev spaces (with H. Brezis), *J. of Functional Analysis* 183 (2001), 321-369.
60. Some nonlinear elliptic equations from geometry, *Proc. Natl. Acad. Sci. USA*, Vol. 99, Issue 24, 15287-15290, November 26, 2002.

61. On the Yamabe problem and the Scalar Curvature problems under boundary conditions (with A. Ambrosetti and A. Malchiodi), *Math. Ann.* 322 (2002), 667-699.
62. On some conformally invariant fully nonlinear equations (with Aobing Li), *C. R. Acad. Sci. Paris, Ser. I* 334 (2002), 1-6.
63. Starshaped compact hypersurfaces with prescribed m -th mean curvature in elliptic space (with V. Oliker), *Journal of Partial Differential Equations* 15 (2002), 68-80.
64. On some conformally invariant fully nonlinear equations, *Proceedings of the ICM, Beijing 2002*, vol. 3, 177–184.
65. Liouville type theorems and Harnack type inequalities for semilinear elliptic equations (with L. Zhang), *Journal d'Analyse Mathématique*, 90 (2003), 27-87.
66. Estimates for elliptic systems from composite material (with L. Nirenberg), *Comm. Pure Appl. Math.* 56 (2003), 892-925.
67. Some recent work on elliptic systems from composite material, *Proceedings in honor of Louis Nirenberg's 75th birthday, New Studies in Advanced Mathematics, Volume 2*, Editors: Chang, Lin and Yau, International Press, 2003, 153-158.
68. A sharp Sobolev inequality on Riemannian manifolds (with T. Ricciardi), *Communications on Pure and Applied Analysis* 2 (2003), 1-31.
69. An extension to a theorem of Jörgens, Calabi, and Pogorelov (with L. Caffarelli), *Comm. Pure Appl. Math.* 56 (2003), 549-583.
70. On some conformally invariant fully nonlinear equations (with Aobing Li), *Comm. Pure Appl. Math.* 56 (2003), 1414-1464.
71. A fully nonlinear version of the Yamabe problem and a Harnack type inequality (with Aobing Li), *C. R. Math. Acad. Sci. Paris* 336 (2003), 319-324.
72. Liouville type theorems for some conformally invariant fully nonlinear equations, *Rend. Mat. Acc. Lincei, s. 9, v. 14:219-225* (2003) — *Proceedings of International Conference on Caccioppoli Mathematical Heritage, Accademia dei Lincei, Rome, Italy, June 3-4, 2002.*
73. Remark on some conformally invariant integral equations: the method of moving spheres, *Journal of the European Mathematical Society* 6 (2004), 153-180.
74. A Liouville theorem for solutions of the Monge-Ampère equation with periodic data (with L. Caffarelli), *Ann. Inst. Henri Poincaré, Analyse Nonlineaire* 21 (2004), 97-120.
75. A Harnack type inequality for the Yamabe equation in low dimensions (with Lei Zhang), *Calculus of Variations and Partial Differential Equations* 20 (2004), 133-151.
76. Compactness of solutions to the Yamabe problem (with Lei Zhang), *C. R. Acad. Sci. Paris, Ser. I* 338 (2004), 693-695.
77. The distance function to the boundary, Finsler geometry and the singular set of viscosity solutions of some Hamilton-Jacobi equations (with L. Nirenberg), *Comm. Pure Appl. Math.* 58 (2005), 85-146.

78. A Liouville type theorem for some conformally invariant fully nonlinear equations (with Aobing Li), in *Geometric Analysis of Partial Differential Equations and Several Complex Variables*, 321-328, Contemp. Math. 368, Amer. Math. Soc., Providence, RI, 2005.
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