

# CURRICULUM VITAE

—With a list of 46 papers, 2 books and courses taught in UCI

**Name:** Wenming Zou.

**Born:** September 11, 1966, Jiangxi, China.

**Nationality:** China.

**Gender:** Male.

**Health:** Excellent.

**Present Address:**

Department of Mathematical Sciences,  
Tsinghua University,  
Beijing 100084,  
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**Education:**

- Ph D., Institute of Mathematics, Chinese Academy of Sciences, April, 1998.

## Main Academic Activities:

- Visiting Assistant Professor of University of California (Irvine), USA  
September 2001-June 2004 (**Sponsor: Martin Schechter**)
- Post-Doctor, Department of Mathematics, Stockholm University,  
Sweden. November 1998- July 1999. (**Sponsor: Andrzej Szulkin**)
- Visiting Scholar of Department of Mathematics, Louvain University,  
Belgium, October, 1999. (**Sponsor: Michael Willem**)
- Visiting Scholar of Department of Mathematics, Utah State Univer-  
sity, USA, April, 2003. (**Sponsor: Z. Wang**)
- Participant, Third School on Nonlinear functional Analysis and Appli-  
cations to Differential Equations, International Centre for Theoretical  
Physics (ICTP), Trieste, **Italy**, October 1998.
- Ph D. candidate, Institute of Mathematics, Chinese Academy of Sci-  
ences, September 1995-May 1998.
- Post-Doctor, Department of Applied Mathematics, Tsinghua Univer-  
sity, April 1998- March 2000.
- Teaching Assistant, Basic Science College, North China University  
of Technology, 1990-1992.
- Lecturer, Basic Science College, North China University of Technol-  
ogy, 1992-1998.

## **Awards:**

- “Academic Award for Outstanding Young Researcher in Tsinghua University”, 2005.—This is the highest award for all teachers under the age 40 of Tsinghua University.
- 2000-“ Zhong Jia Qing ” Excellent Young Mathematician Prize—It is awarded every two years by Chinese Mathematical Society (CMS) for excellent young Mathematicians and only 3 or 4 doctors of China can obtain it; “ Zhong Jia Qing ” was a famous mathematician of China.
- President Prize, Chinese Academy of Sciences, 1998.
- Excellent Postdoctor, Tsinghua University, Beijing, 2000.
- Excellent Youth Teacher of Beijing Municipality, 1993.
- Excellent Youth Teacher of North China University of Technology, 1992.

## **Teaching in the University of California ( Irvine, USA)**

——the evaluations ( over all grade for instructor ) are  
either A- or A

- Fall 2001: Math2A-44081, Math2A-44123,
- Winter 2002: Math2B-44135, Math2A-44099,
- Spring 2002: Math2B-44189, Math2B-44195,
- Summer 2002: Math2C-44145, Math2E-44175,
- Fall 2002: Math2A-44087, Math2A-44123.
- Winter 2003: Math2B-44183, Math2B-44189.
- Spring 2003: Math2D-44283, Math2D-44289.
- Summer 2003: Math3D-44145,
- Fall 2003: Math2B-44165, Math2B-44171, Math2B-44201.
- Winter 2004: Math2B math2D math 2D
- Spring 2004: Math2B math 7 math 7

## Main Publications

43. Wenming Zou, On finding Sign-changing Solutions, **J. Functional Analysis**, **234**(2006), 364-419.
42. M. Schechter, Wenming Zou, On sign-changing solution to perturbed elliptic equations, **J. Functional Analysis** , (2005)
41. M. Schechter, Wenming Zou, Sign-changing critical points of linking type theorems, **Trans. American Math. Society**  
(Accepted: <http://www.ams.org/journals/tran/0000-000-00/>) .
40. Wenming Zou, Sign-Changing Saddle Point **J. Functional Analysis** 219(2005), 433-468
39. M. Schechter, Wenming Zou, Double Linking Theorem and Multiple Solutions. **J. Functional Analysis** 205(2003), 37-61
38. A. Szulkin, Wenming Zou, Homoclinic Orbit for Asymptotically Linear Hamiltonian Systems, **J. Function Analysis**, (187)(2001), 25-41
37. M. Schechter, Z-Q. Wang, Wenming Zou, New Linking Theorem and Sign-Changing Solutions, **Communication in Partial Differential Equation** 29(No. 3-4, 2004), 471-488
36. Wenming Zou, Computations of cohomology groups and applicatios to asymptotically linear beam equations and noncooperative systems, **Communication in Partial Differential Equation** 27 (2002), 115-148.
35. Wenming Zou, Some recent results in linking theory and its applications, **Nonl. Anal. TMA****63**(2005), e1979-e1988.
34. M. Schechter, Wenming Zou,  
Infinite-Dimensional Linking Theorem and Applications **Journal of Differential Equatios.** 2012004324-350

33. Wenming Zou and S. Li, Infinitely many solutions for two classes of the second order Hamiltonian systems. **Journal of Differential Equations**. 186(2002) 141-164.
32. A. Szulkin, Wenming Zou, Computations of E-cohomology groups and periodic solutions of asymptotically linear Hamiltonian systems, **Journal of Differential Equations**. 174(2001), 369-391.
31. Wenming Zou, J. Liu, Multiple solutions for elliptic resonant problem via local linking theory and Morse theory, **Journal of Differential Equations**. 170(1)(2001), 68-95
30. M. Schechter, Wenming Zou, Superlinear Problem. **Pacific J. Math.** 214 2004), 145-160
29. Wenming Zou, Variant Fountain Theorems and Their Applications, **Manuscripta Mathematica** 104( 2001), 343-358.
28. M. Willem and Wenming Zou, On a Schrodinger equation with periodic potential and spectrum point zero, **Indiana Univ. Math. J.** 52 (2003), 109-132.
27. M. Schechter, Wenming Zou, Homoclinic orbits for Schrodinger systems. **Michigan Math. J.** 51 (2003), 59–71.
26. M. Schechter, Wenming Zou, Weak Linking Theorems and Schrodinger Equations with critical Sobolev exponent. **Control, Optimisation and Calculus of Variations** 9, 2003 pp. 601-619
25. Wenming Zou, S. Li, New Linking Theorem and Elliptic Systems with Nonlinear Boundary Condition, **Nonlinear Analysis TMA**. 52 (2003),1797-1820
24. M. Schechter, Wenming Zou, Weak Linking **Nonlinear Analysis TMA** 55(2003), 695- 706.
23. Wenming Zou, S. Li, Infinitely Many Homoclinic Orbits for Second Order Hamiltonian Systems. **Appl. Math. Letter.** 16 (2003), 1283-1287.
22. Wenming Zou, Multiple solutions for elliptic equations with resonance. **Nonlinear Analysis, TMA.** (48)(2002), 363-376.

21. Wenming Zou, Solitary Waves of the Generalized Kadomtsev-Petviashvili Equations **Applied Mathematics Letter.** 15(2002), 35-39.
20. Wenming Zou, Computations of the critical groups and the nontrivial solutions for resonant type asymptotically linear Hamiltonian systems. **Nonlinear Analysis, TMA.** 49(4)(2002), 481-499.
19. Wenming Zou, Multiple solutions for asymptotically linear elliptic systems, **J. Mathematical Analysis and Applications,** 255(2001), 213-229
18. Wenming Zou, Multiple solutions for second order Hamiltonian systems via computation of the critical groups. **Nonlinear Analysis, TMA.** 44 (2001), 975-989
17. Wenming Zou , S. Li , J. LIU, Nontrivial solutions for resonant cooperative elliptic systems via computations of critical groups. **Nonlinear Analysis, TMA.** 38(1999), 229-247
16. S. Li , Wenming Zou, The computations of the critical groups with an application to elliptic resonant problem at higher eigenvalue. **Journal of Mathematical Analysis and Applications,** 235(1999), 237-259
15. Wenming Zou, Solutions for resonant elliptic system with non-odd or odd nonlinearities. **Journal of Mathematical Analysis and Applications,** 223(1998),397-417
14. Wenming Zou, Multiple solutions results for two-point boundary value problem with resonance both at origin and at infinity via computation of the critical groups. **Discrete and Continuous Dynamic Systems,** 4(1998), 485-496 .
13. Shujie Li , Wenming Zou, Remarks on a class of elliptic problems with critical Sobolev exponents. **Nonlinear Analysis, TMA.** 32 (1998), 769-774
12. Wenming Zou, Positive fixed point and eigenvalue results for weakly inward maps, **Nonlinear Analysis, TMA.** 27 (1996), 1447-1461.
11. M. Schechter, Wenming Zou, On functionals bounded from below. **Functional Analysis and its Application,** 37(2003), 75-80

10. Wenming Zou, Positive eigenvector for weakly inward maps, **Indian J. Pure and Applied Math.** 28 (1997), 1391-1398.
9. Wenming Zou, Positive fixed point and eigenvalues for weakly inward set-contraction maps, **J. Systems Sciences and Mathematical Sciences**, 16 (1996), 17-20.
8. M. Schechter, Wenming Zou, The method of weak linking, Abstract and applied analysis, 323-334, World Sci, Publishing, River Edge, NJ, 2004.
7. Wenming Zou, Fixed point and eigenvalue for weakly inward maps, Chinese J. Math 24 (1996), 37-46.
6. Wenming Zou, Some new fixed point theorems for weakly inward mappings, Analele Stiintifice, IASI. 3 (1994), 313-328.
5. WENMING ZOU, Iterative construction of fixed points of asymptotically non-expensive mapping in uniformly convex Banach space, **J. Math. for Tech.**, 10 (1994), 95-97.
4. WENMING ZOU, Positive fixed point theorems for weakly inward set contraction maps, **J. North China University of Technology**, 1 (1992), 17-26.
3. WENMING ZOU, The theorem and application of the unique existence of the positive solution for  $\alpha$ -convex operator equations, **J. North China University of technology**, 3 (1992), 14-22.
2. WENMING ZOU, Fixed point theorems for nonexpensive maps in non-Archimedean space, **J. North China University of Technology**, 3 (1994), 11-21.
1. WENMING ZOU, How to improve the teaching quality of the advanced mathematics, **Research in Higher Education**, 2 (1994), 94-99.

## Main Preprints

3. A. Szulkin and W. Zou, Infinitely Many Multibump Type Solutions for Second Order Hamiltonian Systems,
2. M. Schechter, Wenming Zou, A Mountain Cliff Theorem and Its Applications. (**Submitted.**)
1. M. Schechter, Wenming Zou, On a Brezis-Nirenberg Theorem (**Submitted**)

## Books

1. W. Zou, M. Schechter, Critical Point Theory and its Application, **Springer, New York**, 2006. xii+318 pp. ISBN: 978-0-387-32965-9.
2. W. Zou, Sign-changing Critical Point Theory, 318pages, (Preprint).

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