# CURRICULUM VITAE Ye-Lin Ou

## Mailing Address

Department of Mathematics East Texas A & M University Commerce, TX 75429

#### Education

- Ph.D. in Mathematics, May 2005, University of Oklahoma, USA.
- M.S. in Mathematics, December 2003, University of Oklahoma, USA.
- B.S. in Mathematics, July 1982, Guangxi University for Nationalities, P. R. China.

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## **Employment History**

- 09/2018: Professor, East Texas A & M University.
- 08/2013—08/2018: Associate Professor, Texas A & M University-Commerce.
- 08/2006—07/2013: Assistant Professor, Texas A & M University-Commerce.
- 09/2005—06/2006: Visiting Assistant Professor, University of California, Riverside.
- 08/2000—05/2005: Graduate Teaching Assistant, University of Oklahoma.
- 12/1997—07/2000: Professor, Guangxi University for Nationalities, China.
- 12/1992—11/1997: Associate Professor, Guangxi University for Nationalities, China.
- 12/1987—11/1992: Lecturer, Guangxi University for Nationalities, China.
- Visiting Research Fellow:
  - $\star$  05/1999—07/1999: University of Brest, France.
  - $\star$  03/1999—05/1999: International Center for Theoretical Physics, Italy.
  - $\star$  06/1997—08/1997: University of Brest, France.
  - $\star$  01/1996—03/1996: University of Brest, France.
  - $\star$  12/1994—12/1995: University of Leeds, UK.
  - ★ 09/1991—05/1992: International School for Advanced Studies, Italy.

# Teaching Awards

- $\star$  2012, "Texas A & M System Student Recognition Award for Teaching Excellence", USA.
- ★ 2003, "Harold Huneke Teaching Award" by College of Arts and Sciences, the University of Oklahoma, USA.
- \* 2000, "Top-Ten Outstanding Young Teachers of the Province" by the Education Department of Guangxi Province, China.
- \* 1998, "Excellent teachers of China" by the National Education Department of China.
- \* 1998, "Model Teachers of the University" by Guangxi University for Nationalities, China.
- \* 1993, "Excellent Teachers of Guangxi Province" by the Government of Guangxi Province, China.
- \* 1993, "Model Teachers of the University" by Guangxi University for Nationalities, China.

## Research Awards

- ★ 2012, "The Dev R. Chopra Award for Research", Faculty Senate of Texas A & M Univ. Commerce, USA.
- ★ 2010, "Junior Faculty Research Award", Texas A & M University-Commerce, USA.
- ★ 2000, The second-place award of "Science and Technology in Progress" by the Government of Guangxi Province, China.
- \* 1998, The first-place award of "Science and Technology in Progress" by the Education Department of Guangxi Province, China.
- \* 1998, The first-place award of "Science and Technology in Progress" by Guangxi University for Nationalities, China.

## Grants, Research Fellowships and Scholarships

- 15. Visiting Research Fellow, School of Mathematical Science, Fudan University, Shanghai, 05/15-06/15, 2018.
- 14. Visiting Research Fellow, University of Brest, France, 05/18-06/18, 2017.
- 13. Collaboration Grant for Mathematicians, Simons Foundation, 2016
- 12. Visiting Research Fellow, School of Mathematical Science, Fudan University, Shanghai, 05/17-06/17, 2016.
- 11. Visiting Scholar, Shanghai Center for Mathematical Science, 09/01–10/30, 2015.
- 10. The geometry of biharmonic maps and biharmonic submanifolds, NSF of Guangxi, P. R. China, 2011-2014.
- 9. Natural Science Foundations of Guangxi Province, P. R. China, 2000-2003.
- 8. "Foundations for Young Talents of the New Century", the Government of Guangxi Province, China, 1999-2002.
- 7. Natural Science Foundations of Guangxi Province, China, 1996-1998.
- 6. Visiting Mathematician Fellowship, International Center for Theoretical Physics, Italy, 1999.
- 5. Visiting Research Fellowship, University of Brest, France, 1999.
- 4. Visiting Research Fellowship, University of Brest, France, 1997.
- 3. Visiting Research Fellowship, University of Brest, France, 1996.
- 2. Visiting Research Fellowship, International School for Advanced Studies, Italy, 1991.
- 1. Senior Abroad-Visiting (one-year) Fellowship, the National Education Department of China, 1995.

## **Selected Research Publications**

#### 2025:

57. Ze-Ping Wang, Y.-L. Ou, Biharmonic Riemannian submersions from a product space, J Geom Anal 35, 20 (2025). https://doi.org/10.1007/s12220-024-01828-x.

#### 2024:

- 56. Y. -L. Ou, A Short Survey on Biharmonic Riemannian Submersions, Intern. electr. J. Geom. 17(1), 259-266 (2024).
- 55. Ze-Ping Wang, Y.-L. Ou, Biharmonic Riemannian submersions from a 3-dimensional BCV space, J. of Geom. Anal, 34 (2), 2024.

#### 2023:

- 54. **Y.-L. Ou**, Some classifications of conformal biharmonic and k-polyharmonic maps, Front. Math 18, 1-15 (2023). https://doi.org/10.1007/s11464-021-0284-3.
- 53. R. Ambrosie, C. Oniciuc, Y. -L. Ou, Biharmonic homogeneous polynomial maps between spheres, Results in Math. 78(2023). https://doi.org/10.1007/s00025-023-01935-1

## 2022:

52. **Y.-L. Ou**, *Bi-eigenfunctions and biharmonic submanifolds in a sphere*, J. Geom. Phys., Vol. 180, 2022, https://doi.org/10.1016/j.geomphys.2022.104621.2022.

#### 2021:

- 51. Y. Fu, S, Maeta, and Y. -L. Ou, Biharmobnic hypersurfaces in product spaces, Math. Nachr. 294 (2021), no. 9, 1724-1741.
- 50. Y.-L. Ou, Stability and the index of biharmonic hypersurfaces in a Riemannian manifold, Annali Mate. Pura Appli., 2021. http://link.springer.com/article/10.1007/s10231-021-01135-0

## 2020:

- 49. Research Book: Ye-Lin Ou and B. -Y. Chen, "Biharmonic submanifolds and biharmonic maps in Riemannian Geometry", World Scientific Publishing Co Pte Ltd, May 2020.
- 48. Y.-L. Ou, Some recent work on biharmonic conformal maps, Contemporary Mathematics Volume 756 (2020), 195-205.
- 47. **Y. -L. Ou**, A note on equivariant biharmonic maps and stable biharmonic maps, J. Math. Anal.Appl. 491(2020)124-301.
- 46. S. Maeta and Y. -L. Ou, Some classifications of biharmonic hypersurfaces in space forms, Pacific J. Math, Vol. 306 (2020), No. 1, 281-290.

### 2019:

- 45. Y. Luo and Y. -L. Ou, Some remarks on f-biharmonic maps and bi-f-harmonic maps, Results Math (2019) 74: 97. https://doi.org/10.1007/s00025-019-1023-x.
- 44. M. Akyol and Y. -L. Ou Biharmonic Riemannian submersions, *Annali di Mate. Pura ed Appl.*, 198 (2019), 559-570.

## 2018:

43. E. Ghandour and Y. -L. Ou, Generalized harmonic morphisms and conformal biharmonic maps, J. Math. Anal. Appl., 464 (2018), 924-938.

- 42. Ze-Ping Wang, Y.-L. Ou, and Han-Chun Yang, Biharmonic maps from a 2-torus into a 2-sphere, *Chinese Ann. math. B*, 39(5), 2018, 861-878.
- 41. Y. -L. Ou, Corrigendum to "Some constructions of biharmonic maps and Chen's conjecture on biharmonic hypersurfaces", J. Geom. Phys., 134 (2018), 209-211.
- 40. P. Baird and Y. -L. Ou, Biharmonic conformal maps in dimension four and equations of Yamabe-type, *J. Geom. Anal.*, 28(4) (2018), 3892-3905.

### 2017:

- 39. **Y. -L. Ou**, f-Biharmonic maps and f-biharmonic submanifolds II, J. Math. Anal. Appl., 455 (2017), 1285-1296.
- 38. Yuxin Dong and Y.-L. Ou, Biharmonic submanifolds of pseudo-Riemannian manifolds, *Jour. Geom. Phys.*, 112(2017), 252-262.
- 37. Y. -L. Ou, ∞-harmonic morphisms and ∞-harmonic functions. An. Stiint. Univ. Al. I. Cuza Iasi. Mat. (N.S.), Tomul LXIII, 2017, f. 2, 413-427.

#### 2016:

- 36. Y. -L. Ou, Some recent progress of biharmonic submanifolds, *Contemporary Math*, *AMS*, 674 (2016), 127-139.
- 35. Ze-Ping Wang, Y.-L. Ou, and Han-Chun Yang, Biharmonic maps and f-Biharmonic maps from a 2-sphere, *Jour. Geom. Phys.*, 104(2016), 137-147.

#### 2015:

- 34. Y.-L. Ou, Biharmonic conformal immersions into 3-dimensional manifolds, *Medier-ranean J. of Math*, 12 (2) (2015), 541-554.
- 33. N. Sirakov, Y.-L. Ou and M. Mete, Skin lesion feature vectors classification in models of Riemannian manifolds, *Annals of Mathematics and Artificial Intelligence*, 75 (2015), no. 1-2, 217-229.

## 2014:

- 32. **Y.-L. Ou**, On f-biharmonic maps and f-biharmonic submanifolds, Pacific J. of Math, 271-2 (2014), 461–477.
- 31. Ze-Ping Wang, Y.-L. Ou, and Han-Chun Yang, Biharmonic maps from and into 2-spheres, *Jour. Geom. Phys.*, 77 (2014) 86-96.

## 2013:

30. Y.-L. Ou and Sheng Lu, Biharmonic maps in two dimensions, *Annali di Matematica Pura ed Applicata*, (4) 192 (2013), no. 1, 127–144.

# 2012:

- 29. Y.-L. Ou and Liang Tang, On the generalized Chen's conjecture on biharmonic submanifolds., *Michigan Math. J.*, 61 (2012), 531-542.
- 28. Y.-L. Ou, Some constructions of biharmonic maps and Chen's conjecture on biharmonic hypersurfaces, *Jour. Geom. Phys.*, 62, (2012), 751-762.
- 27. Y. -L. Ou, T. Troutman, and F. Wilhelm, ∞-Harmonic maps and morphisms, *Differential Geometry and its Applications*, 30 (2012), 164–178.
- 26. M. Mete, Y. -L. Ou, N. Sirakov, Skin Lesion Feature Vector Space with a Metric To Model Geometric Structures of Malignancy, R. P. Barneva et al. (eds): IWCIA 2012, Springer Lecture Notes in Computer Science 7655, 2012, 285–297.

## 2011:

- 25. Z.-P. Wang & Y.-L. Ou, Biharmonic Riemannian submersions from 3-manifolds, *Math Zeitschrift*, 269 (3) (2011), 917-925.
- 24. Y.-L. Ou and Z.-P. Wang, Constant mean curvature and totally umbilical surfaces in 3-dimensional geometries, *Jour. Geom. Phys.* 61 (2011) 1845-1853.

#### 2010:

- 23. Y. -L. Ou, Biharmonic hypersurfaces in Riemannian manifolds, *Pacific Journal of Math*, 248 (1), (2010), 217-232.
- 22. E. Loubeau & Y.-L. Ou, Biharmonic maps and morphisms from conformal mappings, *Tohoku Math Journal*, Vol. 62 (1), (2010), 55-73.

## 2009:

- 21. Y.-L. Ou, On conformal biharmonic immersions, Annals of Global Analysis and Geometry, 36, 2009, 133-142.
- 20. Z.-P. Wang & Y. -L. Ou, Some classification of ∞-harmonic maps, Balkan Jour. Geometry and its Application, 14(1), 2009, 120-131.

### 2008:

19. Y.-L. Ou & Z.-P. Wang, Linear biharmonic maps into Nil, Sol, and Heisenberg spaces, Mediterranean Jour. Math, 5 (4) (2008), pp. 379-394.

## 2007:

18. Y.-L. Ou & F. Wilhelm, Horizontally homothetic submersions and nonnegative curvature, *Indiana Univ. Math Jour.*, 56 (4) (2007), 243-261.

### 2006:

- 17. Y.-L. Ou & G. Walschap, A classification of horizontally homothetic submersion from space forms of nonnegative curvature, *Bull. London Math. Soc.*, 38 (2006), 485-493.
- 16. Y. -L. Ou, p-Harmonic morphisms, biharmonic morphisms, and nonharmonic biharmonic maps, J. of Geom. and Physics, 56(3) (2006), 358-374.

### 2005:

- 15. Y.-L. Ou, On p-harmonic morphisms and conformally flat spaces, *Math. Proc. Cambridge Phil. Soc.*, 139 (2) (2005), 317-332.
- 14. **Y.-L. Ou**, *p*-Harmonic functions and the minimal surface equation in a Riemannian manifold, *Illinois J. Math.*, 49(3) (2005), 911-927.

## 2004:

- 13. Y. -L. Ou, p-Harmonic morphisms, minimal foliations, and rigidity of metrics, J. of Geom. and Physics, 52(4) (2004), 365-381.
- 12. Y. -L. Ou and S. W. Wei, A classification and some constructions of P-harmonic morphisms, *Beiträge Algebra Geom.*, 45(2) (2004), 637-647.

### Before 2004:

- 11. E. Loubeau and Y.-L. Ou, The characterizations of biharmonic morphisms, *Differential geometry and its applications*, 31–41, Math. Publ., 3, 2001.
- 10. Y. -L. Ou, Biharmonic morphisms between Riemannian manifolds, Geometry and Topology of Submanifolds X, World Sci. Publishing, NJ, 2000, 231-239.
- 9. P. Baird and Y. -L. Ou, Harmonic polynomial morphisms and Milnor fibrations, in "Harmonic morphisms, harmonic maps and the related topics" *Research Notes Math* 413, 61-66, Chapman & Hall, 2000.

- 8. **Y.-L. Ou**, Generalized Hopf constructions and eigenmaps between spheres, *Beiträge Algebra Geom.*, 40(1) (1999), 267-274.
- 7. Y. -L. Ou, Quadratic harmonic morphisms and O-systems, Ann. Inst. Fourier, 47(2) (1997), 687-713.
- 6. P. Baird and Y. -L. Ou, Harmonic maps and morphisms from multilinear norm-preserving mappings, *Internat. J. of Math.*, 8(2) (1997), 187-211.
- 5. Y.-L. Ou and J. C. Wood, On Classifications of quadratic harmonic morphisms between Euclidean spaces, *Algebras Groups Geom.*, 13(1996), 41-53.
- 4. **Y.-L. Ou**, Complete lifts of harmonic maps and morphisms between Euclidean spaces, *Beiträge Algebra Geom.*, 37(1) (1996), 31-40.
- 3. Y.-L. Ou, Quasiumbilical Einsteinnian hypersurfaces and conformally flat spaces, *Boll. Mate. Italiano*, 7-A (1993), 221-226.
- 2. Y.-L. Ou, Some remarks on the tangent sphere bundles of surfaces, J. of Math. (P. R. China), 11(1) (1992), 49-52.
- 1. Y.-L. Ou, p-Harmonic morphisms, minimal foliations, and conformal deformations of metrics, Ph. D. thesis, University of Oklahoma, 2005.

# Papers submitted for publication or in progress:

- 3. Y.-L. Ou, Biharmonic functions and bi-eigenfunctions on some model spaces, preprint 2024, arXiv:2407.13560.
- 2. Ze-Ping Wang, Y.-L. Ou, Biharmonic Riemannian submersions from a 3-dimensional Homogeneous space, work in progress.
- 1. A. M. Cheri, Y. -L. Ou, On conformal biharmonic hypersurfaces, work in progress.

### Some Recent Invited Talks and Lectures

### 2023:

16. 05/17/2023, PDEs' Seminar, Institute of Mathematical Sciences at The Chinese Univ. of Hong Kong, "Some recent progress on biharmonic Riemannian submersions"

## 2021:

- 15. 09/02/21: "Some new results on conformal biharmonic maps", International Workshop on harmonic maps, biharmonic maps and the related topics, Vienna Univ. Austria.
- 14. 06/28/2021, Ege Geometry Day, "Some geometric aspect of biharmonic maps", Ege University & The Turkish Society of Geometers.

#### 2020:

13. 04/08/2020, Univ. California, Irving, Math Seminar, "Some study of biharmonic maps and submanifolds since 2000".

#### 2018:

- 12. 06/22/2018, Wuhan University, Math Seminar, "Conformal biharmonic maps and the related topics".
- 11. 05/26/2018, Fudan University, Geometry Seminar, "Some recent work on conformal biharmonic maps".
- 10. 04/26/2018, Purdue University PDE Seminar, "Biharmonic maps with geometric constraints".

9. 03/13/2018, Dongbei University of Financial and Economics, Math Colloquium "Some problems and progress on biharmonic maps".

#### 2017:

- 8. 09/28/2017, Princeton University Geometry Learning Seminar, "Some recent work on biharmonic conformal maps".
- 7. 05/18/2017, International workshop on harmonic maps and the related topics, "Some recent work on f-biharmonic maps and f-biharmonic submanifolds".

### 2016:

- 6. 05/31/2016, Fudan University Geometry Seminar, "Some recent work on biharmonic and f-biharmonic maps".
- 5. 06/17/2016, Shenzhen University, Math colloquium, "Some recent progress on biharmonic maps and biharmonic submanifolds".

### 2015:

- 4. 10/21/2015, "Some results on biharmonic pseudo-Riemannian submanifolds" invited talk on geometry seminar at School of mathematical Science, Fudan Univ., China.
- 3. 08/06/2015, International Conference on Geometric and nonlinear Analysis, Xinyang Normal University, China, "Some recent work on biharmonic and f-biharmonic maps".
- 2. 03/14/2015, AMS Sectional Meeting at Michigan State Univ., "Some recent work on biharmonic submanifolds and biharmonic maps".

### 2014:

1. 07/19/2014, Joint Meeting of Math Associations of HongKong and Yunnan Province, "Some recent progress on Chen's conjecture of biharmonic submanifolds".