

Yueh-Ju Lin

Curriculum Vitae

August 21, 2018

Department of Mathematics, Statistics and Physics
Wichita State University

Personal Contact

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Research Interests

Geometric Analysis, Differential Geometry, and Partial Differential Equations

Employment

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| August 2018 – present | Assistant Professor, Department of Mathematics, Statistics and Physics, Wichita State University, USA |
| July 2017 – June 2018 | Instructor, Department of Mathematics, Princeton University, USA |
| January 2016 - May 2016 | Postdoctoral Fellow, Mathematical Sciences Research Institute, Berkeley, USA |
| September 2014 – June 2017 | Postdoctoral Assistant Professor, Department of Mathematics, The University of Michigan, USA |
| July 2007 – June 2008 | Research Assistant, Institute of Mathematics, Academia Sinica, Taiwan Advisor: Professor Cheng, Jih-Hsin |

Education

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| August 2010 – May 2014 | University of Notre Dame Ph.D., Mathematics Advisor: Professor Matthew Gursky |
| August 2008 – May 2010 | University of Notre Dame M.S., Mathematics Advisor: Professor Matthew Gursky |
| September 2003 – June 2007 | National Taiwan University B.S., Mathematics |

Publications:

1. (with J. Case, W. Yuan) *Conformally variational Riemannian invariants* — Submitted
<https://arxiv.org/abs/1711.05579>
2. (with W. Yuan) *A symmetric 2-tensor canonically associated to Q-curvature and its applications* — Pacific Journal of Mathematics 291-2 (2017), 425–438.
DOI:10.2140/pjm.2017.291.425
3. (with W. Yuan) *Deformations of Q-curvature I* — Calc. Var. Partial Differential Equations 55 (2016), no. 4, Paper No. 101, 29 pp
4. (With M. Gursky, F. Hang) *Riemannian manifolds with positive Yamabe invariant and Paneitz operator* — Int. Math. Res. Not. IMRN 2016, no. 5, 1348-1367
5. *Connected sum construction of constant Q-curvature manifolds in higher dimensions*, Differential Geom. Appl. 40 (2015), 290-320.

Invited Talks

1. INDAM - Nonlinear PDEs in Geometry and Physics conference, Cortona, June 15, 2018
2. Princeton University Day, 2018 IAS Women and Mathematics program -Mathematics of Modern Cryptography, May 23, 2018
3. Analysis and PDE Seminar, Johns Hopkins University, April 16, 2018
4. Geometric Analysis Seminar, CUNY Graduate Center, April 12, 2018
5. Special Session on Recent Development of Nonlinear Geometric PDEs, 2018 AMS Spring Central Sectional Meeting, Ohio State University, March 18, 2018
6. 2017 Midwest Geometry Conference, Kansas State University, November 18, 2017
7. Differential Geometry and Geometric Analysis seminar, Princeton University, October 11, 2017
8. NTU Mathematics Colloquium, National Taiwan University, Taiwan, February 20, 2017
9. Geometry Seminar, The University of Michigan, September 16, 2016
10. Differential Geometry/PDE seminar, University of Washington, May 25, 2016

11. Differential Geometry Seminar, University of California Irvine, April 26, 2016
12. Geometry and Analysis Seminar, University of California Santa Cruz, March 9, 2016
13. Postdoctoral Seminar, Mathematical Sciences Research Institute, Berkeley, February 19, 2016
14. Sinica-NCTS/TPE Geometry Seminar, Institute of Mathematics, Academia Sinica, Taiwan, May 29, 2015
15. Geometry Seminar, The University of Michigan, September 26, 2014
16. PDEs in Geometry and Physics Conference-Thematic Program on Nonlinear PDEs in Geometry and Physics, Summer 2014, University of Notre Dame, June 16, 2014
17. 2nd Annual Midwest Women in Mathematics Symposium, University of Notre Dame, April 5, 2014
18. Special Session on Recent Progress in Geometric and Complex Analysis, 2014 AMS Joint Mathematics Meetings, Baltimore, January 16, 2014
19. Differential Geometry and Geometric Analysis Seminar, Princeton University, November 22, 2013
20. PDE, Complex Analysis and Differential Geometry Seminar, University of Notre Dame, November 5, 2013
21. TIMS Geometry Seminar, Taida Institute for Mathematical Sciences(TIMs), Taiwan, June 4, 2013

Teaching Experience

- Instructor:

1. Math 175 - Basic Multivariable Calculus for Economics & Life Sciences, Princeton University, Spring 2018 (Course Coordinator)
2. Math 175 - Basic Multivariable Calculus for Economics & Life Sciences (2 sections), Princeton University, Fall 2017
3. Math 115 - Calculus I, The University of Michigan, Spring 2017
4. Math 215 - Calculus III (2 sections), The University of Michigan, Winter 2017
5. Math 115 - Calculus I (2 sections), The University of Michigan, Fall 2016
6. Math 215 - Calculus III (2 sections), The University of Michigan, Fall 2015
7. Math 215 - Calculus III (2 sections), The University of Michigan, Winter 2015
8. Math 115 - Calculus I (2 sections), The University of Michigan, Fall 2014
9. Calculus B, University of Notre Dame, Spring 2012
10. Calculus B, University of Notre Dame, Spring 2011

- Teaching Assistant: (Recitations)

1. Introduction to Linear Algebra and Differential Equations, Spring 2013

2. Calculus B, University of Notre Dame, Fall 2012
3. Calculus II, University of Notre Dame, Fall 2011
4. Calculus I, University of Notre Dame, Fall 2010
5. Calculus B, University of Notre Dame, Spring 2010
6. Calculus B, University of Notre Dame, Fall 2009

- Online Assignments System Manager:

1. Calculus II, University of Notre Dame, Fall 2011

Honors/Awards/Certificates

1. 2016-17 Cha-Chern Scholar at the Mathematical Sciences Research Institute
2. Graduate Student Travel Grants (to attend Joint Meetings), American Mathematical Society, 2013.
3. Striving for Excellence in Teaching Certificate, Kaneb Center for Teaching and Learning, University of Notre Dame, Fall 2013

Conferences Organized

1. 11th Annual Graduate Student Topology & Geometry Conference, University of Notre Dame, April 6-7, 2013

Main Conference/Programs Attended

1. INDAM - Nonlinear PDEs in Geometry and Physics conference, Cortona, June 11-15, 2018
2. Special Session on Recent Development of Nonlinear Geometric PDEs, 2018 AMS Spring Central Sectional Meeting, Ohio State University, March 17-18, 2018
3. 2017 Midwest Geometry Conference, Kansas State University, November 17-19, 2017
4. Maryland Analysis and Geometry Atelier, University of Maryland, August 21-25, 2017
5. Mini-school on Nonlinear Equations, Center of Mathematical Sciences and Applications, Harvard, December 3-4, 2016
6. Differential Geometry Program - Introductory Workshop: Geometric Flows in Riemannian and Complex Geometry, MSRI, Berkeley, May 2-6, 2016
7. Differential Geometry Program - Introductory Workshop: Kähler Geometry, Einstein Metrics, and Generalizations, MSRI, Berkeley, March 21-25, 2016
8. The 23rd Southern California Geometric Analysis Seminar, University of California Irvine, January 30-31, 2016

9. Differential Geometry Program - Introductory Workshop: Modern Riemannian Geometry, MSRI, Berkeley, January 18-22, 2016
10. Differential Geometry Program - Connections for Women: Differential Geometry, MSRI, Berkeley, January 14-15, 2016
11. 76th Midwest PDE Seminar, Michigan State University, November 21-22, 2015
12. International Workshop on Conformal Geometry and Geometric PDE - Part II: Conference, Beijing International Center for Mathematical Research, Peking University, June 29 - July 3, 2015
13. International Workshop on Conformal Geometry and Geometric PDE - Part I: Mini-Course, Beijing International Center for Mathematical Research, Peking University, June 22 - 26, 2015
14. PDEs in Geometry and Physics Conference-Thematic Program on Nonlinear PDEs in Geometry and Physics, Summer 2014, University of Notre Dame, June 16-20, 2014
15. Graduate and Postdoc Summer School-Thematic Program on Nonlinear PDEs in Geometry and Physics, Summer 2014, University of Notre Dame, June 9-13, 2014
16. 73rd Midwest PDE Seminar, Northwestern University, May 10-11, 2014
17. Great Lakes Geometry 2014, University of Notre Dame, April 26-27, 2014
18. 29th Annual Geometry Festival, Stony Brook University, April 11-13, 2014
19. 2nd Annual Midwest Women in Mathematics Symposium, University of Notre Dame, April 5, 2014
20. 2014 AMS Joint Mathematics Meetings, Baltimore Convention Center, Baltimore, January 15-18, 2014
21. Summer School in Complex Geometry, Rutgers University, August 12-18, 2013
22. 23th Annual PCMI/IAS Graduate Summer School in Geometric Analysis, Park City, Utah, June 30 - July 20, 2013
23. 11th Annual Graduate Student Topology & Geometry Conference, University of Notre Dame, April 6-7, 2013
24. Conference on Metric Geometry and Applications, University of Notre Dame, March 14-17, 2013
25. Geometry and Physics Conference/Conformal and Kähler Geometry Trimester Conference, Institut Henri Poincaré, France, October 8-12, 2012
26. Conformal and Kähler Geometry Conference/ Conformal and Kähler Geometry Trimester Conference, Institut Henri Poincaré, France, September 17-21, 2012
27. 2012 Workshop on Geometric Partial Differential Equations, Institute of Mathematics, Academia Sinica, Taiwan, June 11-13, 2012 National Tsing-Hua University, Hsinchu, Taiwan, June 7-9, 2012
28. The 5th Symposium on Analysis & PDEs, Purdue University, May 20-23, 2012

29. Great Lakes Geometry Conference 2012, Ohio State University, Columbus, OH, April 14-15, 2012
30. 68th Midwest PDE Seminar, University of Notre Dame, November 4-6, 2011
31. A Conference in Honor of the 70th Birthday of S. R. S. Varadhan, National Taiwan University, Taiwan, July 11 - July 15, 2011
32. 2011 Taiwan International Conference on Geometry, National Taiwan University, Taiwan, July 04 - July 07, 2011
33. Higher Order Equations in Geometry and Physics, SISSA International School for Advanced Studies, Trieste, Italy, May 30 - June 2, 2011
34. 2011 Joint Mathematics Meetings, New Orleans Marriott and Sheraton New Orleans, January 6-9, 2011
35. AMS Sectional Meeting - Fall 2010, University of Notre Dame, November 5-7, 2010
36. Interactions Between Geometry and Analysis, University of Notre Dame, October 21-24, 2010
37. PRIMA Conference on Geometric Analysis, University of British Columbia, Canada, July 20-30, 2010
38. NCTS/TPE-TIMS Mini-Course and Workshop on Geometric and Complex Analysis, National Taiwan University, Taiwan, June 21-July 2, 2010
39. Eighth Annual Graduate Student Topology and Geometry Conference, University of Michigan in Ann Arbor, April 10-11, 2010
40. 2009 Workshop on Complex Geometry, Academia Sinica, Taiwan, August 3-4, 2009
41. 2009 Program for Women and Mathematics (Geometric PDE), Institute of Advanced Study, June 8-19, 2009
42. The 4th Symposium on Analysis & PDEs, On the occasion of the 55th birthday of Nicola Garofalo, Purdue University, May 26-29, 2009.
43. Seventh Annual Graduate Student Topology and Geometry Conference, University of Wisconsin in Madison, April 18-19, 2009

Seminars and Activities Attended

1. Mini course “Asymptotic Geometry of Einstein Metrics”, Institut Henri Poincaré, France, October 15-19, 2012
2. Mini course “Min- Max Theory and the Willmore Conjecture”, Institut Henri Poincaré, France, October 15-19, 2012
3. Mini course “Introduction to the Cauchy Problem in General Relativity”, Institut Henri Poincaré, France, October 8-12, 2012
4. Mini course “An Introduction to Tian-Yau-Donaldson Conjecture”, Institut Henri Poincaré, France, September 10-14, 2012

5. Mini course “An Introduction to Conformal Geometry”, Insitut Henri Poincaré, France, September 10-14, 2012
6. TA Training Workshop Speaker, University of Notre Dame, August 14, 2012
7. Authoring Online Question Workshop - Professional Development Opportunity for Graduate Students and Post-docs, October 27, 2011
8. TA Training Workshop Speaker, University of Notre Dame, August 17, 2010

References

- **Prof. Daniel Burns**
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- **Prof. Sun-Yung Alice Chang**
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- **Prof. Matthew Gursky** (Ph.D. advisor)
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- **Prof. Fengbo Hang**
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- **Dr. Paul Kessenich**

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