

# Weiwei Wu

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CONTACT INFORMATION	<b>Address:</b> Department of Mathematics University of Georgia Athens, Georgia 30606 USA	<b>Email :</b> weiwei.wu@uga.edu <b>URL:</b> <a href="https://weiweiwu-math.github.io/">https://weiweiwu-math.github.io/</a> <b>Phone:</b> 612-423-1827 <b>Citizenship:</b> China
RESEARCH INTERESTS	Symplectic geometry/topology, homological mirror symmetry and related algebraic geometry, low-dimensional topology	
EMPLOYMENT	<b>University of Georgia</b> Associate Professor	2021-present
	<b>University of Georgia</b> Assistant Professor	2016-2021
	<b>Centre de recherches mathématiques and Université de Montréal</b> CRM-ISM postdoctoral fellow	2014-2016
	<b>Michigan State University</b> FRG postdoctoral fellow	2012-2014
EDUCATION	<b>University of Minnesota</b> , Ph.D. 2012. <i>Advisor: Tian-Jun Li</i> <b>Peking University</b> , B. S. 2006	
PUBLICATIONS	<b>Published/Preprint</b> <ol style="list-style-type: none"><li>(1) Symplectic <math>(-2)</math>-spheres and the symplectomorphism group of small rational 4-manifolds, II <b>Trans. AMS</b>, <i>to appear</i>, (with J. Li and T.-J. Li)</li><li>(2) Symplectic rational <math>G</math>-surfaces and equivariant symplectic cones. <b>J. Differ. Geom.</b>, <i>to appear</i>, arXiv:1708.07500 (with W. Chen and T.-J. Li)</li><li>(3) Topology of symplectomorphism groups and ball-swappings. <b>Proceedings of ICCM 2018.</b>, <i>to appear</i>, (with Jun Li)</li><li>(4) Spherical twists and Lagrangian spherical manifolds. <b>Selecta Math. (N.S.)</b> 25, 68 (2019). (with C.-Y.Mak)</li><li>(5) Dehn twists exact sequences through Lagrangian cobordism <b>Compositio Math.</b> 154(12), 2485-2533. (with C.-Y. Mak)</li><li>(6) Gauged Floer homology and spectral invariants. <b>International Mathematics Research Notices</b>, rnx005 (with G. Xu)</li><li>(7) Equivariant split generation and mirror symmetry of special isogenous tori. <b>Adv. Math.</b>, 323 (2018), 279325.</li><li>(8) Stability and existence of surfaces in symplectic 4-manifolds with <math>b_+ = 1</math>. <b>J. Reine Angew. Math. (Crelle's Journal)</b>, 2018 (742), 115-155. (with J. Dorfmeister and T.-J. Li)</li><li>(9) On an exotic Lagrangian torus in <math>\mathbb{C}P^2</math>. <b>Compositio Math.</b> , 151 (2015), no. 07, pp 1372- 1394.</li><li>(10) On the symplectic mapping class groups of small rational manifolds. <b>Michigan Math. J.</b>, 64 (2015), no. 2, 319-333. (with J. Li and T.-J. Li)</li><li>(11) Exact Lagrangians in An-surface singularities. <b>Math. Ann.</b>, 359 (2014), no. 1-2, 153-168.</li><li>(12) Spherical Lagrangians via ball packings and symplectic cutting. <b>Selecta Math. (N.S.)</b>, 20 (2014), no. 1, 261-283.(with M.Borman and T.-J. Li)</li></ol>	

- (13) Symplectomorphism groups of non-compact manifolds and space of Lagrangians.  
**J. Symplectic Geom.**, to appear, arXiv:1305.7291 (with R. Hind, M. Pinsonnault)
- (14) Lagrangian spheres, symplectic surfaces and symplectic mapping class groups.  
**Geometry & Topology** 16 (2012), 1121-1169 (with T.-J. Li)
- (15) Note on a theorem of Bangert.  
**Acta Math. Sin. (Engl. Ser.)** 28 (2012), no. 1, 121-132. (with T.-J. Li)

**Papers in Preparation/Unpublished work**

- (1) Lagrangian surgery formula for clean intersections and applications (with C.Y. Mak, G. Xu)
- (2) Gromov compactness for Lagrangian degenerations (with C.Y. Mak, G. Xu)
- (3) A note on handle attaching in monotone wrapped Fukaya categories  
*Preprint*, (with C.-Y. Mak)
- (4) Finite symplectic symmetries and orbifold cohomology. (with L. Amorim, S.C. Lau)
- (5) Donaldson hypersurfaces in orbifold theory. (with G. Xu)
- (6) Detecting non-displaceable Lagrangians in toric degenerations, (unpublished)  
*available at* <http://www.crm.umontreal.ca/~wuweiwei/>

INVITED  
PRESENTATIONS

**Conference/Colloquium presentations/Lecture series**

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| 1. Purdue University, AMS meeting.   | 2020 Apr   |
| 2. Fields Institute, Geometry and Algebra of Landau-Ginzburg Models workshop                                 | 2019 Sept  |
| 3. U Michigan, RTG conference in symplectic topology,  | 2019 May   |
| 4. IMPA, Symplectic Topology Conference  | 2019 Aug.  |
| 5. National Taiwan University, International Consortium of Chinese Mathematicians (ICCM)                     | 2018 Dec.  |
| 6. Georgia Southern U., Colloquium   | 2018 Sept. |
| 7. Peking U, Young Mathematician Forum 2018  | 2018 Jun.  |
| 8. U of Ottawa, Workshop on immersed Lagrangian cobordisms   | 2018 Apr.  |
| 9. Master Lecture Series workshop on Prof. McDuff's works at TSIMF;  | 2017 Dec.  |
| 10. Boston University/Keio University Workshop 2017;   | 2017 Jun.  |
| 11. U of Warwick, Interactions of symplectic and algebraic geometry  | 2017 Aug.  |
| 12. U of Thomas, Special session of AMS meeting  | 2016 Oct.  |
| 13. Chinese U of HongKong, Lecture series.<br><i>On Fukaya categories and split generations</i>              | 2016 Apr.  |
| 14. National U of Singapore, Department Colloquium   | 2016 Feb.  |
| 15. Dartmouth College, Department Colloquium   | 2016 Jan.  |
| 16. U of Georgia, Department Colloquium  | 2016 Jan.  |
| 17. Sichuan U, Workshop on Symplectic Geometry and Mathematical Physics                                      | 2015 Jun.  |
| 18. U of Georgia, 2015 Georgia Topology Conference   | 2015 Jun.  |
| 19. The Chinese U of Hong Kong, Workshop on Geometry   | 2015 Mar.  |
| 20. U of Michigan, FRG conference on symplectic birational geometry and its connection to algebraic geometry | 2014 Oct.  |
| 21. IBS-CGP in POSTECH (2 one hour lectures)   | 2014 Feb.  |
| 22. U of Massachusetts, Amherst, Workshop on Group actions on smooth 4-manifolds                             | 2013 Oct.  |
| 23. U of Minnesota, Workshop and Conference on the Topology and Invariants of Smooth 4-Manifolds             | 2013 Apr.  |
| 24. Sun Yat-Sen U, Department Colloquium   | 2013 Apr.  |
| 25. U of Miami, FRG Topology Workshop 2013   | 2013 Mar.  |
| 26. Mirror Symmetry special session, Spring AMS regional meeting   | 2012 Mar.  |
| 27. U of Georgia, Georgia Topology Conference 2011   | 2011 June  |
| 28. Sun Yat-Sen U, Department Colloquium   | 2010 Dec.  |

## Invited Seminar Talks

29. Universidade Federal do Rio de Janeiro - UFRJ	2020 Mar.
30. University of Cambridge	2019 Apr.
31. Stony Brook University	2019 Mar.
32. U Michigan, Mathematical Physics seminar	2019 Mar.
33. Chinese U of HongKong	2019 Jan.
34. UC Irvine, Geometry seminar	2018 Mar.
35. U Michigan, Mathematical Physics seminar	2018 Feb.
36. Kansas State U, Geometry seminar	2018 Feb.
37. Princeton U, Symplectic Geometry seminar	2018 Feb.
38. Cornell U, Lie groups seminar	2017 Sept.
39. Columbia U, SGGTC	2017 Apr.
40. UIUC, Geometry seminar	2016 Sept.
41. U Georgia, Geometry seminar	2016 Aug.
42. IAS-Princeton, Symplectic seminar	2015 Oct.
43. Harvard U, Yau's seminar	2015 Oct.
44. U de Montréal, Mathematical Physics seminar	2015 Oct.
45. Boston U, Differential geometry seminar	2015 Oct.
46. U Minnesota, Differential/Symplectic geometry seminar	2015 Oct.
47. CIRGET seminar, (joint Montréal city geometry seminar)	2015 Feb.
48. U Minnesota, Differential/Symplectic geometry seminar	2014 Dec.
49. U Massachusetts, Differential geometry seminar	2014 Nov.
50. U Toronto, Geometry seminar	2014 Oct.
51. U de Montreal, Symplectic seminar	2014 Oct.
52. U Chicago, Geometry seminar	2014 Apr.
53. U Miami, Special session, 2014 Miami FRG conference	2014 Mar.
54. U California, Irvine, Geometry seminar	2014 Jan.
55. U Southern California, DG seminar	2013 Sept.
56. U Notre Dame, Felix Klein seminar	2013 Mar.
57. U Minnesota, DG/SG seminar	2013 Feb.
58. Michigan State U, Geometry and Topology seminar	2012 Feb.
59. U Minnesota DG/SG seminar	2013 Jan.
60. Michigan State U, Geometry and Topology seminar	2012 Sept.
61. U Georgia, Geometry seminar	2012 Mar.
62. U Chicago, Geometry seminar	2012 Mar.
63. Kansas State U, Poster session of Mirror Symmetry 2011	2011 Nov.
64. U Minnesota, DG/SG seminar	2011 Oct.

## PROFESSIONAL ACTIVITIES

### Invited Conference Participation

- Nov 2015, Inaugural conference of the Simons Collaboration on Homological Mirror Symmetry (Upenn);
- Sept 2015, Geometry and topology of symplectic 4-manifolds (UMass);
- Sept 2015, Lalondefest: Conference on Topology, Geometry and Dynamics (Montreal);
- Jun 2014, Workshop on Moduli Spaces of Pseudo-holomorphic Curves II (Simons Center);
- Feb 2014, Workshop on Moduli Spaces of Pseudo-holomorphic Curves II (Simons Center);
- Mar 2013, FRG workshop on low-dimensional topology (Miami)

### Grants and Awards

2018 ICCM Best Paper Award

2017-2022 Simons Foundation: Collaboration Grant for Mathematicians

2013-2015 AMS-Simons travel grant.

**Referee:**

- Algebraic and Geometric Topology
- Commentarii Mathematici Helvetici
- Geometry and Topology
- Journal of Differential Geometry
- Journal of Geometry and Physics
- Pacific Journal of Mathematics
- Selecta Mathematica, New Series
- New World Mathematics Awards panelist (Ph.D. Thesis)

TEACHING  
EXPERIENCE

- 2019 Fall, Topology of Manifolds, Instructor
- 2018 Fall, Complex Analysis, Instructor
- 2018 Fall, Calculus III, Instructor
- 2017 Fall, Vertical Research Group in Mirror Symmetry, Instructor
- 2017 Fall, Calculus III, Instructor
- 2016 Fall, Calculus III, Instructor
- 2013 Fall, Calculus III, Lecturer
- 2012 Fall, Linear Algebra, Lecturer
- 2011 Spring, Math 2372, CSE Calculus II, TA Instructor
- 2011 Spring, Math 1031, College Algebra and Probability, TA Instructor
- 2010 Fall, Math 1271, Calculus I, TA Instructor
- 2010 Summer, Math 1142, Short Calculus, Lecturer
- 2010 Spring, Math 1272, Calculus II, TA Instructor
- 2009 Fall, Math 2263, Multivariable Calculus, TA Instructor
- 2007-09 Spring, Math 1031, College Algebra and Probability, TA Instructor
- 2006-07 Spring, Math Tutor