

Ming Zhang

CONTACT INFORMATION	Department of Mathematics University of California, San Diego (UCSD) AP&M 6341, 9500 Gilman Drive La Jolla, CA USA 92093-0112	(734)3550803 miz017@ucsd.edu https://www.math.ucsd.edu/~miz017/
RESEARCH INTERESTS	Quantum K -theory, gauged linear sigma model, mirror symmetry, and wall-crossing.	
EMPLOYMENT	Department of Mathematics, University of California, San Diego <input type="checkbox"/> SEW assistant professor, July 2021-June 2024 Department of Mathematics, The University of British Columbia <input type="checkbox"/> Postdoctoral fellow, August 2019-July 2021	
EDUCATION	Department of Mathematics, University of Michigan <input type="checkbox"/> Ph.D., Mathematics, August 2013-April 2019 <ul style="list-style-type: none">• Dissertation Topic: Quantum K-theory with Level Structure• Advisor: Yongbin Ruan Tsinghua University <input type="checkbox"/> B.S. in Mathematics, August 2009-July 2013	
HONORS AND AWARDS	2018	Mathematics Department Graduate Fellowship Department of Mathematics, University of Michigan
	2018	Rackham Conference Travel Grant Rackham Graduate School, University of Michigan
	2017	Mathematics Department Graduate Fellowship Department of Mathematics, University of Michigan
	2017	Rackham Conference Travel Grant Rackham Graduate School, University of Michigan
	2017	Department of Mathematics Fellowship Department of Mathematics, University of Michigan
	2016	Mathematics Department Graduate Fellowship Department of Mathematics, University of Michigan
	2015	Mathematics Department Graduate Fellowship Department of Mathematics, University of Michigan
	2014	Alice Webber Glover in Math Scholarship Department of Mathematics, University of Michigan
PREPRINTS	6.	W. Gu, D. Pei, and M. Zhang. “Equivariant Verlinde/Grassmannian Correspondence in K -theory.” In preparation.
	5.	M. Zhang. “Verlinde/Grassmannian Correspondence in K -theory.” In preparation.

4. W. Gu, D. Pei, and M. Zhang. “On Phases of 3d $\mathcal{N} = 2$ Chern-Simons-Matter Theories.” arXiv:2105.02247
3. M. Zhang and Y. Zhou. “ K -theoretic Quasimap Wall-Crossing.” arXiv:2012.01401
2. Y. Ruan and M. Zhang. “Verlinde/Grassmannian Correspondence and Rank 2 δ -Wall-Crossing.” Submitted. arXiv:1811.01377
1. Y. Ruan and M. Zhang. “The Level Structure in Quantum K -theory and Mock Theta Functions.” Submitted. arXiv:1804.06552

- RESEARCH TALKS
24. “Verlinde/Grassmannian Correspondence,” Algebraic Geometry Seminar, University of California San Diego, November 2020.
 23. “Verlinde/Grassmannian Correspondence,” Online China Geometry and Physics Seminar, Institute for Advanced Study in Mathematics, Zhejiang University, Hangzhou, November 2020.
 22. “Verlinde/Grassmannian Correspondence,” Algebraic Geometry Seminar, The University of British Columbia, November 2020.
 21. “Verlinde/Grassmannian Correspondence,” Algebra Seminar, University of Oregon, October 2020.
 20. “Verlinde/Grassmannian Correspondence,” Mathematical Physics Seminar, Center of Mathematical Sciences and Applications, Harvard University, October 2020.
 19. “ K -theoretic wall-crossing,” Algebraic Geometry Seminar, University of California San Diego, February 2020.
 18. “ K -theoretic wall-crossing,” Algebraic Geometry Seminar, Colorado State University, January 2020.
 17. “ K -theoretic quasimap wall-crossing for GIT quotients,” Joint Mathematics Meetings, AMS Special Session on Cohomological Field Theories and Wall Crossing, Denver, January 2020.
 16. “ K -theoretic wall-crossing,” Moduli and Invariants, Casa Matemática Oaxaca, Oaxaca, November 2019.
 15. “ K -theoretic wall-crossing,” 3D Mirror symmetry and AGT conjecture, Institute for Advanced Study in Mathematics, Zhejiang University, Hangzhou, October 2019.
 14. “ K -theoretic quasimap wall-crossing for GIT quotients,” Algebraic Geometry Seminar, The University of British Columbia, September 2019.
 13. “Verlinde algebra and quantum K -theory with level structure,” Algebraic Geometry Seminar, Huazhong University of Science and Technology, Wuhan, June 2019.
 12. “Verlinde algebra and quantum K -theory with level structure,” Verlinde Algebra and Grassmannian, Sun Yat-sen University, Guangzhou, June 2019.
 11. “Quantum K -theory and Mock Theta Functions,” Workshop on modular structures in Gromov-Witten theory and related topics, University of Michigan, January 2019.
 10. “Verlinde algebra and quantum K -theory with level structure,” Quantum K -theory and Related Topics, KIAS, Seoul, November 2018.
 9. “Verlinde algebra and quantum K -theory with level structure,” AMS Fall Western Sectional Meeting 2018, Special Session on Algebraic Geometry, San Francisco State University, October 2018.
 8. “Verlinde algebra and quantum K -theory with level structure,” Algebraic Geometry Seminar, Columbia University, October 2018.

7. “Verlinde algebra and quantum K -theory with level structure,” Geometry and Physics Seminar, University of Michigan, October 2018.
6. “Verlinde algebra and quantum K -theory with level structure,” Crossing the Walls in Enumerative Geometry, Snowbird, Utah, May 2018.
5. “The Level Structure in Quantum K -theory and Mock Theta Functions,” Workshop on Quantum K -theory, Sun Yat-sen University, Guangzhou, January 2018.
4. “The R -matrix of the sum of LG-model and decomposition of FJRW CohFT,” Geometry and Physics Seminar, University of Michigan, October 2016.
3. “Tautological relations of moduli space of curves via quasi-modular forms,” Seminar of Algebraic Geometry, Institut de Mathématiques de Jussieu, Paris, May 2016.
2. “Tautological relations of moduli space of curves via quasi-modular forms,” Yau’s Students’ Seminar, Harvard University, April 2016.
1. “Tautological relations of moduli space of curves via quasi-modular forms,” Symplectic Geometry and Mathematical Physics Seminar, Beijing International Center for Mathematical Research, December 2015.

TEACHING
EXPERIENCE

University of California, San Diego:

Fall 2021 Instructor, Math 103A: Modern Algebra I

The University of British Columbia:

Winter 2021 Instructor, Math 307: Applied Linear Algebra

Fall 2020 Instructor, Math 253: Multivariable Calculus

Summer 2020 Instructor, Math 221: Matrix Algebra

Winter 2020 Instructor, Math 152: Linear Systems

Fall 2019 Instructor, Math 253: Multivariable Calculus

University of Michigan:

Winter 2019 Lab instructor, Math 215: Multivariable Calculus

Fall 2018 Lab instructor, Math 215: Multivariable Calculus

Summer 2018 Instructor, Math 116: Calculus II

Winter 2018 Lab instructor, Math 215: Multivariable Calculus

Fall 2017 Lab instructor, Math 215: Multivariable Calculus

Summer 2017 Instructor, Math 115: Calculus I

Fall 2016 Instructor, Math 116: Calculus II

Winter 2016 Instructor, Math 115: Calculus I

Fall 2014 Instructor, Math 115: Calculus I

Winter 2014 Instructor, Math 115: Calculus I

Fall 2013 Instructor, Math 105: Precalculus

SERVICE

- Organizer for Algebraic Geometry seminar at the University of British Columbia.
- Referee for International Mathematics Research Notices, SIGMA, Forum of Mathematics, Sigma.

EXTENDED
PROFESSIONAL
TRAVEL

Summer 2016 Trimester on the mathematics of string theory, Institut Henri Poincaré, Paris, France

CONFERENCE
PARTICIPATION

New Perspectives in Gromov-Witten Theory, IMJ-PRG, Sorbonne Université, Paris, June 2019.

Mirror Symmetry Conference for Young Researchers, University of Michigan, May 2017.

FRG Workshop on Quasimaps and Geometric Representation Theory, University of Michigan, April 2017.

Crossing the Walls in Enumerative Geometry, Columbia University, January 2017.

RTG Conference on Witten's r -spin class and related topics, University of Michigan, January 2017.

String-Math 2016, Collège de France, Paris, June 2016.

Curves on surfaces and 3-folds, Bernoulli Center - EPFL, Lausanne, June 2016.

Wall-crossing and quiver varieties, Bernoulli Center - EPFL, Lausanne, May 2016.

Workshop on moduli spaces in algebraic geometry and mathematical physics, Chern Institute, Tianjin, September 2015.

Summer Research Institute on Algebraic Geometry, University of Utah, July 2015.

Mid-West Algebraic Geometry Graduate Conference, The University of Illinois at Chicago, April 2015.

Workshop on Landau-Ginzburg B-model, University of Michigan, March 2014.