

Shaoyun Bai

CONTACT INFORMATION	MSRI/SLMath 17 Gauss Way Berkeley, CA 94720 USA	Email: shaoyunb@msri.org
RESEARCH INTERESTS	Symplectic Topology, Low-dimensional Topology, Enumerative Geometry, Homological Mirror Symmetry	
EMPLOYMENT	Mathematical Sciences Research Institute, Berkeley McDuff Postdoctoral Fellow, mentored by Mohammed Abouzaid Program: Floer Homotopy Theory	Fall 2022
	Simons Center for Geometry and Physics, Stony Brook Postdoctoral Associate	Spring 2023
	Columbia University Ritt Assistant Professor	Fall 2023 -
EDUCATION	Princeton University Ph.D. in Mathematics Advisor: John Pardon	2017 - 2022
	University of Cambridge Visiting Graduate Student Host: Ivan Smith	February 2019 - June 2019
	Tsinghua University B.S. of Mathematics, working under the supervision of Si Li and Pin Yu Senior Thesis: Gauge Theory and Hitchin Integrable Systems	2013 - 2017
PAPERS	<ol style="list-style-type: none">6. Arnold conjecture over integers (with Guangbo Xu), arXiv:2209.085995. An integral Euler cycle in normally complex orbifolds and \mathbb{Z}-valued Gromov-Witten type invariants (with Guangbo Xu), arXiv:2201.026884. On the Rouquier dimension of wrapped Fukaya categories and a conjecture of Orlov (with Laurent Côté), arXiv:2110.10663, <i>Compos. Math. (to appear)</i>3. Bifurcations of embedded curves and an extension of Taubes' Gromov invariant to Calabi–Yau 3-folds (with Mohan Swaminathan), arXiv:2106.012062. A symplectic formula of generalized Casson invariants, arXiv:2102.036651. Equivariant Cerf theory and perturbative $SU(n)$ Casson invariants (with Boyu Zhang), arXiv:2009.01118	
INVITED TALKS	<ul style="list-style-type: none">• IMSA University of Miami “Homological Mirror Symmetry”, January 23-27, 2023• Symplectic Zoominar, January 2023• MSRI “Floer Homotopical Methods in low dimensional and symplectic topology”, November 14-18, 2022• MIT “Symplectic Seminar”, October 20, 2022• Stanford “Topology Seminar”, October 18, 2022• MSRI Floer Homotopy Theory Program Seminar, September 22, 2022• Chinese Academy of Sciences “2022 Morningside Center of Mathematics Geometry Summer School”, August 15-20, 2022• MIT “Boston Informal Symplectic Seminar”, April 29, 2022	

- Tel Aviv “Seminar in Real and Complex Geometry”, April 28, 2022
- Princeton/IAS “Joint Symplectic Seminar”, April 11, 2022
- MIT “Boston Informal Symplectic Seminar”, April 1, 2022
- Hebrew University “Topology and Geometry Seminar”, March 22, 2022
- Simons Center “Recent developments in Lagrangian Floer theory” workshop, March 15, 2022
- University of Georgia “Geometry Seminar”, March 4, 2022
- Columbia “Enumerative Geometry Seminar”, February 28, 2022
- Iowa “Topology Seminar”, February 10, 2022
- University of Miami “Joint ICMS & IMSA Seminar”, November 22, 2021
- Stanford “Symplectic Geometry Seminar”, November 8, 2021
- Princeton “Topology Seminar”, September 30, 2021
- Western Hemisphere Virtual Symplectic Seminar, September 24, 2021
- University of Kansas “Geometry Seminar”, September 10, 2021
- Symplectic Zoominar (CRM-Montréal, Princeton/IAS, Tel Aviv and Paris), March 26, 2021
- MIT “Geometry and Topology Seminar”, November 9, 2020
- Stanford “Topology Seminar”, November 3, 2020
- Texas A&M “Topology Seminar”, October 14, 2020

SELECTED HONORS

- MSRI McDuff Postdoctoral Fellowship, Fall 2022
- Tsinghua Xuetao Mathematics Talent Program, 2015-2017
- Prizes of S.T. Yau College Students Mathematics Contests, 2016

ORGANIZATIONAL ACTIVITIES

- I (co-)organized the following graduate student seminars at Princeton University.
- Learning Seminar on Siefring’s Intersection Theory for Contact 3-manifolds, Fall 2020
 - Learning Seminar on Nearby Lagrangian Conjecture and Sheafy Symplectic Topology, Spring 2020
 - Learning Seminar on Combinatorial and Symplectic Khovanov Homology, Fall 2019
 - Learning Seminar on Symplectic Cohomology of Cotangent Bundles and Loop Spaces, Fall 2019

TEACHING

- Spring 2022 MAT 218 Multivariable Analysis and Linear Algebra II, Grader.
 Fall 2021 MAT 201 Multivariable Calculus, Preceptor.
 Spring 2021 MAT 355 Introduction to Differential Geometry, Grader.
 Fall 2020 MAT 103 Calculus I, Preceptor.
 Spring 2020 MAT 355 Introduction to Differential Geometry, Grader.
 Fall 2019 MAT 216 Accelerated Honors Analysis I, Grader.
 Fall 2018 MAT 216 Accelerated Honors Analysis I, Grader.

REFeree SERVICE

- Annals of Mathematics
- Journal of Differential Geometry
- Journal of Symplectic Geometry

LANGUAGES

Chinese (Native), English (Fluent)