XUJIA CHEN

xchen@mpim-bonn.mpg.de

homepage: https://xujia-c.github.io

November 20, 2025

EMPLOYMENT

Max-Planck Institute for Mathematics
Postdoc, *July 2024 - December 2025*

Harvard University, Society of Fellows
Junior Fellow, *July 2021 - June 2024*

EDUCATION

Stony Brook University *August 2016 - May 2021*
PhD in Mathematics

Thesis: *Real WDVV Relations for Symplectic 4-Manifolds*
Thesis advisor: Aleksey Zinger

University of Science and Technology of China *September 2012 - June 2016*
B.S. in Mathematics

PUBLICATIONS AND PREPRINTS

Kontsevich's characteristic classes as topological invariants of configuration space bundles,
arxiv/2302.03021v3

The cohomology ring of the Deligne-Mumford moduli space of real rational curves with conjugate marked points, with A. Zinger and P. Georgieva, arxiv/2305.08798

Blowdowns of the Deligne-Mumford spaces of real rational curves, with A. Zinger,
arxiv/2305.08811

Spin/Pin Structures and Real Enumerative Geometry (monograph, 320 pages), with A. Zinger,
arxiv/1905.11316v4, v5 to be published by World Scientific

Solomon-Tukachinsky's vs. Welschinger's open Gromov-Witten invariants of symplectic sixfolds, IMRN, Volume 2022, Issue 9, 7021–7055 (2022)

A geometric depiction of Solomon-Tukachinsky's construction of open GW-invariants,
Peking Mathematical Journal, Volume 5, 279–348 (2022)

WDVV-type relations for Welschinger's invariants: applications, with A. Zinger,
Kyoto Journal of Math. 61(2) 339-376 (2021)

WDVV-type relations for disk Gromov-Witten invariants in dimension 6, with A. Zinger,
Mathematische Annalen volume 379, 1231–1313 (2021)

Steenrod pseudocycles, lifted cobordisms, and Solomon's relations for Welschinger invariants,
Geometric and Functional Analysis, Volume 32, 490–567 (2022)

AWARDS

President's Award to Distinguished Doctoral Students, Stony Brook University, *2021*

Chairman's Award for Outstanding Research by a Graduate Student, Department of Mathematics, Stony Brook University, *2021*

John Marburger III Fellowship for Science, Engineering, and Mathematics, Stony Brook University, *2019-2020*

US Junior Oberwolfach Fellow, Mathematisches Forschungsinstitut Oberwolfach, Germany, *April 2019*

TEACHING

Stony Brook University

MAT 131 (Calculus I) recitation, *Fall 2018, Spring 2018, Fall 2016*

MAT 118 (Mathematical Thinking) recitation, *Fall 2017, Spring 2017*

University of Science and Technology of China

Mathematical Analysis B3 recitation, *Fall 2015*

INVITED TALKS

Séminaire ALPE, Institut de Mathématiques de Toulouse, *Nov. 17, 2025*

Edinburgh Geometry Seminar, University of Edinburgh, *Dec. 11, 2024*

Topology Seminar, MPIM Bonn, *Oct. 21, 2024*

Oberseminar, MPIM Bonn, *Sept. 5, 2024*

CGP Seminar, Institute for Basic Sciences–Center for Geomerey and Physics, Pohang, South Korea, *Aug. 22, 2024*

Enumerative Geometry Seminar, Institut de Mathématiques de Jussieu, Sorbonne Université, *June 18, 2024*

Conference on Geometry and Topology, Qingtian, China, *June 3-7, 2024*

Topology Seminar (on Zoom), University of Louisiana at Lafayette, *April 26, 2024*

Algebraic Geometry Seminar, Boston College, *April 25, 2024*

Geometry and Physics Seminar, Boston University, *April 17, 2024*

Geometry, Physics, and Representation Theory Seminar, Northeastern University, *April 11, 2024*

No Boundary Seminar, University of Chicago, *March 6, 2024*

Mini-conference on topology and mathematical physics, Boston University, *Nov. 11-12, 2023*

Online Seminar: Knots, Graphs and Groups (on Zoom), *Oct. 7, 2023*

Columbia Symplectic Geometry and Gauge Theory Seminar, Columbia University, *Sept. 29, 2023*

Topology Seminar, Northeastern University, *Sept. 26, 2023*

Loo-Keng Hua Lecture Series (on Zoom), Institute of Mathematics of Chinese Academy of Sciences, *Sept 8,11,13, 2023*

Mini-workshop on Geometric Topology, University of Science and Technology of China, *July 8, 2023*

Workshop "At the Crossroads of Topology and Enumerative Geometry", Hebrew University, *June 4-9, 2023*

Online Seminar: Manifolds, homotopy theory, and related topics, *Mar. 28, 2023*

UMass Boston Math Seminar, UMass Boston, *Nov. 30, 2022*

Special Session on Lagrangian and Legendrian Submanifolds, Fall Eastern AMS Sectional Meeting, UMass Amherst, *Oct. 1-2, 2022*

Geometry and Physics Seminar, Boston University, *April 6, 2022*

Informal Symplectic Seminar, MIT, *Oct. 8, 2021*

Algebraic Geometry in String Theory Seminar (on Zoom), Center of Mathematical Sciences and Applications, Harvard University, *Sept. 21, 2021*

Symplectic Seminar (on Zoom), IBS Center for Geometry and Physics, *May 17, 2021*

Geometry and Physics Seminar (on Zoom), Center of Mathematical Sciences and Applications, Harvard University, *Aug. 11, 2020*

Western Hemisphere Virtual Symplectic Seminar (on Zoom), *May 15, 2020*

Topology Seminar, University of Iowa, *Mar. 12, 2020*

Shanks Workshop "Real Enumerative Geometry and Beyond", Vanderbilt University, *Mar. 6, 2020*

Workshop "Tropical Geometry in Europe", University of Nantes, *Jan. 23, 2020*

Symplectic Geometry Seminar, Stony Brook, *Nov. 14, 2019*

Almost Complex Geometry Seminar, The Graduate Center of CUNY, *Oct. 11, 2019*

Algebraic Geometry and Number Theory Seminar, Colorado State University, *Oct. 3, 2019*

Enumerative Geometry Seminar, Columbia University, *Sept. 17, 2019*

Workshop "Tropical Methods in Real Algebraic Geometry", Casa Matemática Oaxaca, *Sept. 12, 2019*

Physical Mathematics Seminar, University of Heidelberg, *May 6, 2019*

Workshop "Tropical Geometry: New Directions", Mathematisches Forschungsinstitut Oberwolfach, *May 1, 2019*

Topology, Geometry, and Algebra Seminar, University of Nantes, *Mar. 21, 2019*

Enumerative Geometry Seminar, Institut de Mathématiques de Jussieu, Sorbonne Université, *Mar. 15, 2019*

Geometry and Physics Seminar, University of Michigan, *Mar. 11, 2019*

High-Level Academic Frontier Lectures, University of Science and Technology of China, *Jan. 2-4, 2019* (lecture series)

Mathematics Seminar, ShanghaiTech University, *Dec. 26, 2018*

Symplectic Geometry and Mathematical Physics Seminar, Beijing International Center for Mathematical Research, *Dec. 19, 2018*

Geometry/Topology Seminar, Stony Brook, *Oct. 23, 2018*