

EMAIL	chrislpkuo@berkeley.edu
INTEREST	<ul style="list-style-type: none"> • Microlocal Sheaf Theory • D-modules • Symplectic and Contact Geometry • Noncommutative Geometry • Geometric Representation Theory • Mirror Symmetry
EDUCATION AND TRAINING	<ul style="list-style-type: none"> • Ph.D. in Mathematics, UC Berkeley, 2016-2022. Advisor: Vivek Shende. Thesis title: Symplectic geometric methods in microlocal sheaf theory. • B.S. in Mathematics, National Taiwan University, Taipei, Taiwan 2010-2014. Advisor: Chung-Jun Tsai. Thesis title: A calculation for the Hard Lefschetz map on six-manifolds constructed by Coisotropic Luttinger Surgery
APPOINTMENTS	<ul style="list-style-type: none"> • Postdoc for Noncommutative Algebraic Geometry, SLMATH, Spring 2024. • Assistant Professor (RTPC) of Mathematics, University of Southern California, Fall 2022 – Present (on leave during Spring 2024). <ul style="list-style-type: none"> – Herbert and Ruth Busemann Assistant Professor in Mathematics, Fall 2023 – Spring 2024.
RESEARCH	<ul style="list-style-type: none"> • Tomohiro Asano, Yuichi Ike, C. Kuo, and Wenyan Li, Sheaf quantization of symplectic isotopies, in preparation. • Sheel Ganatra, C. Kuo, Wenyan Li, and Haosen Wu, Integral transforms and compactness, in preparation. • C. Kuo and Harold Williams, Homological combinatorics of Lagrangian coambolae, in preparation. • C. Kuo and Wenyan Li, Relative Calabi-Yau structure on microlocalization. arXiv:2408.04085, submitted to JEMS in August 2024. • C. Kuo and Wenyan Li, Duality, Künneth formulae, and integral transforms in microlocal geometry. arXiv:2405.15211, submitted to IMRN in June 2024. • Laurent Côté, C. Kuo, David Nadler, and Vivek Shende, The microlocal Riemann-Hilbert correspondence for complex contact manifolds. arXiv:2406.16222. • C. Kuo, Vivek Shende and Bingyu Zhang. On the Hochschild cohomology of Tamarkin categories. arXiv:2312.11447. • C. Kuo and Wenyan Li, Spherical adjunction and Serre functor from microlocalization, arXiv:2210.06643. • Laurent Côté, C. Kuo, David Nadler, and Vivek Shende, Perverse Microsheaves. arXiv:2209.12998. • C. Kuo, Wrapped sheaves, Adv. Math 415 (2023): 108882.
PH.D. STUDENTS SUPERVISED	<ul style="list-style-type: none"> • Haosen Wu, current, co-supervised with Wenyan Li under Sheel Ganatra.

TEACHING EXPERIENCE	<ul style="list-style-type: none"> • Instructor, Math 425a, Fundamental Concepts of Analysis, University of Southern California, Fall 2024 • Instructor, Math 144, Foundations of Statistics, University of Southern California, Fall 2023 • Instructor, Math 245, Mathematics of Physics & Engineering I, University of Southern California, Spring 2023 • Instructor, Math 125g, Calculus I, University of Southern California, Fall 2022 • Graduate Student Instructor, Math 110 Linear Algebra, UC Berkeley, Spring 2020 • Graduate Student Instructor, Math 16B Analytic Geometry and Calculus, UC Berkeley, Spring 2019 • Graduate Student Instructor, Math 54 Linear Algebra and Differential Equations, UC Berkeley, Fall 2017 and Fall 2018 • Graduate Student Instructor, Math 53 Multivariable Calculus, UC Berkeley, Spring 2017 • Graduate Student Instructor, Math 1A Calculus, UC Berkeley, Fall 2016 • Teaching Assistant, Geometry (Required course for juniors), National Taiwan University, Fall 2013
SEMINARS	<ul style="list-style-type: none"> • Co-organizer, Topology seminar, University of Southern California, Fall 2022-24 • Organizer, Deformation quantization modules learning seminar, Syddansk Universitet, Fall 2021-Spring 2022
INVITED TALKS	<ul style="list-style-type: none"> • A quick introduction of microlocal sheaf theory, NAG GRT Seminar, SLMATH (formerly MSRI), February 2024. • Globalizing the microlocal Riemann-Hilbert correspondence, Algebraic Geometry Seminar, UC Davis, January 2024. • Globalizing the microlocal Riemann-Hilbert correspondence, Algebraic Geometry Seminar, Academia Sinica, January 2024. • Globalizing the microlocal Riemann-Hilbert correspondence, Geometry Seminar, Kyushu University, January 2024. • Microlocal Riemann-Hilbert correspondence, QM Research Seminar, University of Southern Denmark, December 2023. • Microlocal Riemann-Hilbert correspondence, Bonn symplectic geometry seminar, December 2023. • Perverse Microsheaves, Mathematics Seminars, Montana State University, October 2023. • Perverse Microsheaves, Differential geometry and symplectic topology seminar, University of Minnesota, September 2023. • Sheaf Theoretic Methods in Symplectic Geometry, NCTS Differential Geometry Seminar, National Center for Theoretical Sciences, Taipei City, May 2023. • Microlocal sheaf theory in noncommutative geometry, Algebraic Geometry Seminar, Academia Sinica, Taipei City, May 2023. • Microlocal sheaf theory in noncommutative geometry, UCSB Seminar on Geometry and Arithmetic, University of California, Santa Barbara, May

	<p>2023.</p> <ul style="list-style-type: none"> • Wrapped sheaves, Topology Seminar in USC, September 2022 • Wrapped sheaves, QM Research Seminar in SDU, March 2022 • Wrapped sheaves, U. Iowa Topology Seminar, December 2021
SEMINAR AND TALKS	<ul style="list-style-type: none"> • Sheaf quantization and the topology of cotangent bundles, Guest lecture for MATH 699 by Sheel Ganatra, Fall 2022. • Nondisplaceability results for Lagrangians in toric symplectic manifolds, Southern California Symplectothon, October 2022 • Hochschild homology, Deformation quantization modules learning seminar, Syddansk Universitet, February 2022 • Kernels, Deformation quantization modules learning seminar, Syddansk Universitet, December 2021 • Algebroids, Deformation quantization modules learning seminar, Syddansk Universitet, November 2021 • Nonlinear regularity and local existence, J-Holomorphic curves learning seminar, Syddansk Universitet, October 2021 • Deformation of a sheaf of rings, Deformation quantization modules learning seminar, Syddansk Universitet, October 2021 • E_n-algebras and iterated loop spaces, Geometric Representation Theory seminar, UC Berkeley, Spring 2020 • Speaker, Wrapped Floer Homology Learning Seminar, Fall 2019 • Hochschild-Kostant-Rosenberg theorem through loop spaces, Geometric Representation Theory seminar, UC Berkeley, November 27 and December 14 2018 • Koszul duality for algebras, Deformation Theory Seminar, UC Berkeley, October 15 2017 • Gerbes. Mayer-Vietoris calculations, K-theory Seminar, UC Berkeley, April 2017 • Adams operation, K-theory Seminar, UC Berkeley, February 2017 • Winter Camp for Fundamentals in Mathematics for College Students, National Taiwan University, January 23-February 8, 2013
PROFESSIONAL SERVICE	<ul style="list-style-type: none"> • Topology Screening Exam Committee, University of Southern California, Fall 2024. • Referee for Compositio • Co-organizer, The Los Angeles Workshop on Representations and Geometry (LAWRGe), Summer 2023 • Referee for Annals of Mathematics
AWARDS AND HONORS	<ul style="list-style-type: none"> • Shing-Tung Yau College Student Mathematics Contest, Bronze medal in geometry and topology, 2014 • Honors Program in Mathematics, National Taiwan University, 2014 • Chow Hung-Ching Scholarship, Institute of Mathematics - Academia Sinica, 2013