

Daren Chen

CONTACT INFORMATION

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EMPLOYMENT

California Institute of Technology

Olga Taussky & John Todd Postdoctoral Scholar Teaching Fellow,
Sep 2023 - June 2026.

EDUCATION

Stanford University

Ph.D. in Mathematics, Sep 2018 - June 2023.

Advisor: Ciprian Manolescu

Thesis: Some variations of Khovanov homology for null homologous links in \mathbb{RP}^3

University of Cambridge, Trinity College

MMath and BA, Sep 2014 - Jun 2018.

PREPRINTS AND PAPERS

1. Bar-Natan Homology for null homologous links in \mathbb{RP}^3 , preprint(2023), arXiv:2307.11461
2. Adiabatic compactness for holomorphic curves with boundary on nearby Lagrangians (with Dylan Cant), preprint(2023), arXiv:2302.13391
3. Floer Lasagna modules from link Floer homology, preprint(2022), arXiv:2203.07650
4. Twistings and the Alexander polynomial, preprint(2022), arXiv:2202.12489
5. Generalised homomorphisms, measuring coalgebras and extended symmetries (with M. Batchelor, W. Boulton, J.Rawlinson, M.Warsi), preprint(2021), arXiv:2105.02527
6. Khovanov-type homologies of null homologous links in \mathbb{RP}^3 , *Quantum Topology*, under revision, arXiv:2104.04779

TALKS

1. Some variations of Khovanov homology for null homologous links in \mathbb{RP}^3 , Virginia Topology Conference, June 2023
2. Bar-Natan homology for null homologous links in \mathbb{RP}^3 , Stanford University Topology Seminar, April 2023
3. Khovanov-type homologies of null homologous links in \mathbb{RP}^3 , Caltech Geometry & Topology Seminar, January 2023
4. Introduction to Floer lasagna module, AMS sectional meeting, University of Utah, October 2022
5. [Online] Khovanov-type homologies of null homologous links in \mathbb{RP}^3 , Australian Geometric Topology Webinar, September 2022
6. Introduction to Floer lasagna modules, University of Hamburg, August 2022
7. [Online] Twistings and the Alexander polynomial, Knots in Washington 49.75, April 2022
8. [Online] Lasagna algebra and Floer lasagna module, GT GAPS, March 2022
9. Khovanov-type homologies of null homologous links in \mathbb{RP}^3 , GSTGC 2022 GaTech, March 2022
10. Khovanov-type homologies of null homologous links in \mathbb{RP}^3 , Stanford University Topology Seminar, September 2021

TEACHING	<p>As a instructor at Caltech:</p> <ul style="list-style-type: none"> • Math 151a: Algebraic and differential topology. Autumn 2023 • Math 151c: Algebraic and differential topology, Spring 2024 <p>As a teaching assistant at Stanford University:</p> <ul style="list-style-type: none"> • Math 20: Calculus. Autumn 2018 • Math 51: Linear Algebra, Multivariable Calculus, and Modern Applications. Winter 2020, Winter 2021, Summer 2021, as Admin TA for Winter 2022 • Math 53: Differential Equations with Linear Algebra, Fourier Methods, and Modern Applications. Spring 2023 • Math 116: Complex Analysis. Autumn 2022 • Math 120: Groups and Rings. Autumn 2019 • Math 143: Differential Geometry. Spring 2019 • Math 148: Algebraic Topology. Winter 2023 • Math 215A: Algebraic Topology. Autumn 2020, Autumn 2021
AWARDS	Pólya Teaching Fellow Award, Stanford University, 2023
PROFESSIONAL SERVICES	<p>Organizing committee for Kylerec 2022, 2023.</p> <p>Organizer of Student Topology Seminar at Stanford University during the academic year 2021-2022.</p>