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	As a lecturer at Caltech:

As a lecturer at Caltech:

- Ma 151a: Algebraic and differential topology. Autumn 2023

- Ma 151c: Algebraic and differential topology. Spring 2024

As a teaching assistant at Stanford University:

- 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

Organizing committee for Kylerec 2022, 2023.

Organizer of Student Topology Seminar at Stanford University during the academic year 2021-2022.