

Richard Wong

ASSISTANT ADJUNCT PROFESSOR (HE/HIM/HIS)

Department of Mathematics, UCLA, Los Angeles, CA 90095

☎ MS 6304 | ✉ richardwong@math.ucla.edu | 🏠 rwongmath.github.io/

Employment

Assistant Adjunct Professor in Mathematics, Step II

University of California, Los Angeles

July 2021 - Present

- 2023 Liggett Instructor Award
- 2023 Project NExT Fellow
- CEILS 2022 Scientific Teaching Fellow

Education

Ph.D. in Mathematics

University of Texas at Austin

ADVISED BY ANDREW J. BLUMBERG

May 2021

- Thesis: *Endotrivial modules for cyclic p -groups and generalized quaternion groups via Galois descent*
- Concentration in Teaching and Mentoring
- Concentration in Communicating Science

B.S. Summa Cum Laude in Mathematics, highest honors

Rutgers University

MATHEMATICS HONORS TRACK

May 2015

- SAS Honors Program
- Matthew Leydt Society, Class of 2015

Publications

[1] Endotrivial modules for cyclic p -groups and generalized quaternion groups via Galois descent

Jeroen Meer, Richard Wong

Under Revision, Journal of Homotopy and Related Structures, arxiv: 2107.06308 (2021)

Selected Teaching Experience

Math 32AH/32BH: Calculus of Several Variables (Honors)

UCLA, Fall 2021-Winter 2024

- Proof-based treatment of differential (32AH) and integral (32BH) multivariable calculus, spanning material in linear algebra, real analysis, and differential geometry.
- Developed collaborative, inquiry-based assignments that emphasize mathematical exposition.
- 32AH (Fall 2021, Fall 2022, Fall 2023), 32BH (Winter 2022, Winter 2023, Winter 2024)

Math 94: Explorations of Mathematics in the Physical World

UCLA, Summer 2023

- Taught incoming first year students from low-income and URM backgrounds that intend to major in STEM.
- Created an inquiry-based survey course to demonstrate how scientists utilize mathematics and programming.
- Taught Python for data science (scipy, pandas, matplotlib).

Math 115A: Linear Algebra

UCLA, Spring 2023, Spring 2024

- Proof-based linear algebra. This is a second course in linear algebra.
- Developed collaborative, inquiry-based assignments that emphasize proof-writing skills.

M 371E: Learning Assistant Experience in Mathematics

UT Austin

INSTRUCTOR OF RECORD AND CALCLAB COORDINATOR

Spring 2020 - Spring 2021

- Taught undergraduates how to effectively teach and support students in the learning of mathematics.
- Ran CalcLab, a program where students enrolled in calculus courses can receive help and work with classmates.
- Transitioned CalcLab to an online calculus resource through Zoom.

Other Teaching Experience

- Math 32A/32B: Calculus of Several Variables
- **Summer Bootcamp in Linear Algebra** for math graduate students.
- Minicourse Leader, University of Texas at Austin Summer Minicourses.

UCLA, Fall 2021 - Winter 2024

UCLA, Summer 2023

UT Austin, Summers 2017-2020

Teaching Assistant Experience

- UGS 303: From Numbers to Chaos.
- Supplemental Instruction Leader for M 408K: Differential calculus.
- M 408M: Multivariable calculus.
- Young Scholars Program in Discrete Mathematics.

UT Austin, Fall 2018
UT Austin, Spring 2018
UT Austin, Fall 2017
Rutgers University, Summer 2013

Outreach and Mentoring

Founding Co-Organizer

UT Austin

MATHEMATICIANS OF COLOR ALLIANCE AT TEXAS (MOCAT)

Summer 2020 - Summer 2021

- Created a community of undergraduate and graduate students of color to recruit, retain, support, and empower underrepresented groups in mathematics.
- Planned expository talks, held social events, and mentored undergraduate students.
- Organized *Existence and Uniqueness*, a departmental book club on *Living Proof*.
- Tensor SUMMA 2021 Grant Recipient.
- Presented at the 2021 Mathfest MAA Outreach Poster Session

Founder and Organizer

UT Austin

SUMMER MINI-COURSES 2017-2020

Summers 2017-2021

- Organized a series of week-long graduate student-run minicourses on various tools and research topics.
- Gave lectures on homological algebra, spectral sequences and equivariant stable homotopy theory.
- Transitioned the Minicourses to an online format, serving over 400 participants from around the world.

Directed Reading Program Mentor

UT Austin, Fall 2016 - Fall 2020

- Mentored 9 undergraduate student projects in various subjects in algebra and topology.

Speaker

- UMC and WIM Equity, Diversity, and Inclusion Panelist
- UMSA talk: "3-spheres and the Hopf map"
- Undergraduate Math Council: Speaker Series
- Graduates Achieving Inclusion Now (GAIN)
- Honors Linear Algebra Guest speaker
- SMMG: "Number Games"
- Math Club: "Invertible Objects: An Elementary Introduction to Picard Groups".
- Math Club: REU / Summer Opportunities Panelist
- SMMG: "Surfaces, Space, and Hyperspace: An exploration of 2, 3, and higher dimensions".
- Math Club: "An Overview of Algebraic Topology"

UCLA, Winter 2024
UCLA, Fall 2023
UCLA, Fall 2022
Virtual, Fall 2021
Rice University, Fall 2020
UT Austin, Spring 2020
UT Austin, Spring 2020
UT Austin, Spring 2018
UT Austin, Spring 2018
UT Austin, Spring 2017

Service

Co-Organizer

IPAM

SOCALGTOP

May 2024

- Co-organized miniconference for the Southern California algebraic topology community

Co-Organizer

Joint Math Meetings

PROJECT NEXT SPECIAL SESSION

Jan 2024

- Co-organized session titled "Active Learning Strategies for a Large Class."

Teaching Committee

UCLA

DEPARTMENTAL SERVICE

Fall 2022 - present

- Monitored departmental teaching policy and its effectiveness in undergraduate education.
- Evaluated nominations for departmental teaching awards.

Course Development Committee

UCLA

DEPARTMENTAL SERVICE

Fall 2021 - Spring 2022

- This committee is charged with developing and updating course syllabi, designing new courses in the curriculum, and maintaining and updating course web-pages.

Co-Organizer

UT Austin

UT AUSTIN LEARNING SEMINARS

Spring 2017, Fall 2018

- Quantum Topology and Categorification Seminar, on TQFT and the Jones Polynomial
- Homotopy Theory Learning Seminar, on families in the stable homotopy groups of spheres.

Scholarships, Honors & Awards

2023	Liggett Instructor Award	<i>UCLA</i>
2023	Project NExT (New Experiences in Teaching) Fellow	<i>MAA</i>
2022	CEILS 2022 Scientific Teaching Fellow	<i>UCLA</i>
2020	SSD Appreciation Award (“Clock Award”)	<i>UT Austin</i>
2020	FIC Graduate Student Teaching Award	<i>UT Austin</i>
2018	Teaching Preparation Certificate	<i>UT Austin</i>
2017	Inclusive Classrooms Leadership Certificate	<i>UT Austin</i>
2015-2020	Provost’s Graduate Excellence Fellowship	<i>UT Austin</i>
2015	Wolfson Annual Award for Academic Excellence in Mathematics	<i>Rutgers University</i>
2014, 2015	Weill Scholarship in Mathematics	<i>Rutgers University</i>
2014	REU Participant	<i>IU-Bloomington</i>
2014	John Bogart Prize	<i>Rutgers University</i>
2013	Alan Marc Schreiber Memorial Scholarship	<i>Rutgers University</i>

Invited Conference Talks

Jan. 2024	Joint Math Meetings (AIM and AMS Special Sessions)	<i>San Francisco</i>
Oct. 2023	2023 AMS Fall Central Sectional Meeting	<i>Creighton University</i>
Oct. 2022	2022 AMS Fall Western Sectional Meeting	<i>University of Utah</i>
Jul. 2021	Workshop on Homotopy Theory and Group Theory, IRP Higher Homotopical Structures	<i>CRM Barcelona</i>
Apr. 2021	Graduate Student Topology & Geometry Conference	<i>Indiana University</i>
Feb. 2021	eCHT Equivariant Algebra Reading Seminar	<i>Virtual</i>
Nov. 2020	eCHT Kervaire Invariant One Reading Seminar	<i>Virtual</i>
Oct. 2020	electronic Algebraic Topology Employment Network	<i>Virtual</i>
Sep. 2019	eCHT Kan Seminar	<i>Virtual</i>
Jul. 2019	Young Topologist’s Meeting 2019	<i>EPFL</i>
Mar. 2019	Graduate Student Topology & Geometry Conference	<i>UIUC</i>

Invited Seminar Talks

Apr. 2023	University of Oregon Topology Seminar	<i>University of Oregon</i>
Oct. 2021	University of Louisiana at Lafayette Algebra Seminar	<i>UL Lafayette</i>
May 2021	Rose-Hulman Institute of Technology Seminar	<i>Rose-Hulman</i>
Mar. 2021	Seminario Virtual de Topología Algebraica	<i>CIMAT Merida</i>
Oct. 2020	The Ohio State University Student Homotopy Theory Seminar	<i>OSU</i>
Oct. 2020	University of Illinois, Urbana-Champaign Topology Seminar	<i>UIUC</i>
Oct. 2020	University of Chicago-Northwestern University Joint Topology Seminar	<i>Northwestern</i>
Jul. 2020	GROOT Summer Seminar	<i>Virtual</i>