

# Richard Wong

ASSISTANT ADJUNCT PROFESSOR (HE/HIM/HIS)

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## Employment

### Assistant Adjunct Professor in Mathematics, Step II

University of California, Los Angeles

July 2021 - Present

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## Education

### Ph.D. in Mathematics

University of Texas at Austin

May 2021

ADVISED BY ANDREW J. BLUMBERG

- 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

May 2015

MATHEMATICS HONORS TRACK

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

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## Publications

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

Jeroen Meer, Richard Wong

Submitted, arxiv: 2107.06308 (2021)

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## Teaching Experience

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

UCLA, Fall 2021-Winter 2022

- Proof-based treatment of the topics 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), 32BH (Winter 2022)

### Math 32A/B: Calculus of Several Variables

UCLA, Fall 2021-Present

- Topics in differential (32A) and integral (32B) multivariable calculus.
- Developed collaborative, inquiry-based assignments that emphasize mathematical exposition.
- 32A (Fall 2021, Spring 2022), 32B (Winter 2022)

### 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.

### University of Texas at Austin Summer Mincourses

UT Austin

MINICOURSE LEADER

Summers 2017-2020

- Minicourse Leader for Intro to Spectral Sequences; Equivariant Stable Homotopy Theory; and Homological Algebra.
- Gave lectures introducing graduate-level mathematics to graduate students and advanced undergraduate students.
- Created problem sets to accompany the lectures, and ran collaborative problem sessions.

### Teaching Assistant Experience

#### • UGS 303: From Numbers to Chaos.

UT Austin, Fall 2018

- Supplemental Instruction Leader for M 408K: Differential calculus.

UT Austin, Spring 2018

- M 408M: Multivariable calculus.

UT Austin, Fall 2017

- Young Scholars Program in Discrete Mathematics.

Rutgers University, Summer 2013

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# Outreach and Mentoring

## Founding Co-Organizer

MATHEMATICIANS OF COLOR ALLIANCE AT TEXAS (MOCAT)

UT Austin

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

## Directed Reading Program Mentor

UT Austin, Fall 2016 - Fall 2020

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

## Speaker

Virtual

GRADUATES ACHIEVING INCLUSION NOW (GAIN)

Fall 2021

- Discussed issues of discrimination and systemic inequity, as well as action items to improve graduate student experiences.
- Spoke on the topic of allyship and mentorship

## Speaker

UT Austin

SATURDAY MORNING MATH GROUP

Spring 2018, Spring 2020

- SMMG is an outreach program aimed at junior high and high school students, their parents, and their teachers.
- Gave an inquiry-based talk titled: "Surfaces, Space, and Hyperspace: An exploration of 2, 3, and higher dimensions".
- Gave an inquiry-based talk titled: "Number Games"

## Speaker

UT Austin

UT AUSTIN MATH CLUB

Spring 2017, Spring 2020

- Gave an introductory talk titled "An Overview of Algebraic Topology".
- Participated in a panel advertising summer opportunities in mathematics.
- Gave an introductory talk titled "Invertible Objects: An Elementary Introduction to Picard Groups".

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# Service

## Course Development Committee

UCLA

DEPARTMENTAL SERVICE

Fall 2021 - present

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

## Founding 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 Minicourse to an online format, serving over 400 participants from around the world.

## 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.

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## Scholarships, Honors & Awards

2020	<b>SSD Appreciation Award (“Clock Award”)</b>	<i>UT Austin</i>
2020	<b>FIC Graduate Student Teaching Award</b>	<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	<b>Wolfson Annual Award for Academic Excellence in Mathematics</b>	<i>Rutgers University</i>
2014, 2015	<b>Weill Scholarship in Mathematics</b>	<i>Rutgers University</i>
2014	REU Participant	<i>IU-Bloomington</i>
2014	<b>John Bogart Prize</b>	<i>Rutgers University</i>
2013	<b>Alan Marc Schreiber Memorial Scholarship</b>	<i>Rutgers University</i>

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## Invited Conference Talks

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>

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## Invited Seminar Talks

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>