

Jonathan Dugan

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EDUCATION

Ph.D. Candidate, Mathematics June 2022 (anticipated)
University of California Riverside
Advisor: Professor Vyjayanthi Chari

M.S., Mathematics March 2019
University of California Riverside

B.S., summa cum laude, Computational Mathematics June 2016
University of California Riverside

TEACHING EXPERIENCE

Teaching Associate—UC Riverside 2019–present

- Precalculus I, Highlander Early Start Academy Summer 2020
- Integral Single Variable Calculus Fall 2021
- Single Variable Calculus: Sequences and Series Summer 2019, Winter 2020, Winter–Spring 2021
- Multivariate Differential Calculus Summer 2021
- Introduction to Linear Algebra Summer 2021

Teaching Assistant—UC Riverside Fall 2016–Fall 2020

- Precalculus for Business and Social Sciences Fall 2016, Winter 2017, Spring 2018
- Precalculus I Spring 2017, Summer 2020
- Precalculus II Fall 2018, Spring 2020
- Differential Calculus for the Life Sciences Fall 2018
- Single Variable Differential Calculus Fall 2019
- Single Variable Integral Calculus Summer 2018, Winter 2019
- Single Variable Calculus: Sequences and Series Summer 2019
- Multivariable Differential Calculus Spring 2017, Summer 2018
- Business Calculus Fall 2017
- Intro to Discrete Mathematics Spring 2018, Spring 2019, Spring 2020
- Intro to Linear Algebra Winter 2018
- Optimization Fall 2020
- Combinatorics and Graph Theory Spring 2018
- Linear Algebra II Winter 2019
- Numerical Analysis I Fall 2018
- Real Analysis I Fall 2019

AWARDS & DISTINCTIONS

Awards

- Outstanding Teaching Assistant Award, *UC Riverside* May 2019
- Academic Excellence Awards for College of Natural and Agricultural Sciences: Mathematics, *UC Riverside* May 2016

Fellowships

- Dissertation Year Program Fellowship, *UC Riverside* Spring 2022
- Jones Junior Fellowship in Pure Mathematics, *UC Riverside* Spring 2019
- Chancellor’s Distinguished Fellowship, *UC Riverside* Fall 2016–Spring 2018
- Regent’s Scholarship, *UC Riverside* Fall 2012–Spring 2016

ACADEMIC SERVICE

UC Riverside

- Organizer, Graduate Student Representation Theory Seminar Spring 2020–present
- Organizer, 2021 Mathematics Department Teaching Workshop September 2021
- Treasurer, Math Department Graduate Student Association February 2019–March 2021
- Teaching Fellow Fall 2019, Fall 2020
Observed the teaching of new math graduate students, and provided feedback and mentoring on their teaching.
- Microtutorials Winter–Spring 2019, Spring 2020
Wrote scripts for and starred in online videos teaching students how to solve word problems in math courses. Wrote follow-up worksheets for videos.
- Advanced Mathematics Program Instructor Summer 2019
Collaborated with fellow graduate student to write curriculum, teach, and mentor underrepresented students to prepare them for upper division math courses, with the goal of increasing diversity in math graduate programs and increase the career prospects of undergrad students.

Ramona High School, Riverside, CA

- AVID Tutor in Math January 2015–June 2016
Worked as in-class tutor to help high school students with their mathematics.

PROFESSIONAL CERTIFICATIONS

- University Teaching Certificate, *UC Riverside*. June 2020
- The Art and Craft of Remote Teaching Certificate, *UC Riverside*. June 2020

SELECTED TALKS

UC Riverside Seminars

- Macdonald Polynomials and Demazure Modules for the Current Algebra $\mathfrak{sl}_{n+1}[t]$: A Detailed Look at Explicit Examples, *Graduate Student Representation Theory Seminar*. April 2021
- Macdonald Polynomials and Demazure Modules for the Current Algebra $\mathfrak{sl}_{n+1}[t]$, *Graduate Student Representation Theory Seminar*. January 2021
- The Symmetric Group, Representation Theory, and Paradoxes in Voting Theory, *Graduate Student Representation Theory Seminar*. October 2020
- Graded Representations of the Current Algebra $\mathfrak{sl}_n[t]$, *Graduate Student Representation Theory Seminar*. May 2020
- An Introduction to Lie Algebras, *Graduate Student Representation Theory Seminar*. January 2020
- An Introduction to Macdonald Polynomials, *Graduate Student Representation Theory Seminar*. October 2019
- An Introduction to Quantum Lie Algebras in the Example of \mathfrak{sl}_2 , *Graduate Student Seminar*. June 2019
- Demazure Flags and Character Formulas, *Graduate Student Representation Theory Seminar*. April 2019
- Examples of Diagram Foldings and Invariant Subalgebras, *Graduate Student Representation Theory Seminar*. November 2018
- Cluster Algebras of Finite Type, *Representation Theory Seminar*. April 2018

CONFERENCES ATTENDEND

- Mastery Grading Conference, University STEM Focus, *virtual conference* June 2021
- Women in Combinatorics and Representation Theory–Diversity & Excellence Workshop, *UC Riverside virtual conference* May 2021
- Spring 2021 SoCal-Nevada (Virtual) Section Meeting, *virtual conference* April 2021
- Fall 2020 SoCal-Nevada (Virtual) Section Meeting, *virtual conference* November 2020
- Geometry and Representation Theory, *UC Riverside* December 2019
- AMS Fall Western Sectional Meeting, *UC Riverside* November 2019

- Riverside Mathematics Workshop for Excellence and Diversity, *UC Riverside* November 2019
- Math Connections Graduate Student Seminar, *UC Riverside* May 2019
- Southeastern Lie Theory Workshop XI, *Louisiana State University, Baton Rouge, LA*. Funding provided by conference. May 2019
- AMS Spring Central and Western Joint Sectional Meeting, *University of Hawai'i at Mānoa*. Funding Provided by UC Riverside. March 2019
- AMS Fall Western Sectional Meeting, *San Francisco State University* October 2018
Funding provided by UC Riverside.
- Riverside Mathematics Workshop for Excellence and Diversity, *UC Riverside* October 2018
- Math Connections Graduate Student Seminar, *UC Riverside* May 2018
- Joint Mathematics Meetings 2018, *San Diego Convention Center* January 2018
- AMS Fall Western Sectional Meeting, *UC Riverside* November 2017
- Math Connections Graduate Student Seminar, *UC Riverside* May 2017

PROFESSIONAL MEMBERSHIPS

- American Mathematical Society
- Mathematical Association of America
- Association for Women in Mathematics
- National Association of Mathematicians