# Jonathan Alcaraz

#### **EDUCATION**

## University of California, Riverside

PhD in Mathematics — ENROLLED MS in Mathematics — JANUARY 2019 BS in Mathematics — JUNE 2016

#### **TEACHING EXPERIENCE**

## **Teaching Assistant**

University of California, Riverside

2016-PRESENT

In charge of leading discussion, grading quizzes, hosting office hours, and utililzing active learning techniques. A full list of courses I have taught and links to teaching evaluations available on my website.

## Instructor for College Math for the Sciences II

University of California, Riverside

SUMMER 2018

In charge of preparing and presenting lectures, hosting office hours, writing quizzes and exams, delegating and collaborating with a teaching assistant, and organizing a 7-week course.

#### **Private Tutor**

Freelance

2013-2017

Met with students to help with homework, studying, and exam preparation. Topics included high school algebra, geometry, and calculus and preparation for standardized tests such as the CBEST and the ASVAB.

### **CONTACT**

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# **ON-GOING PROJECTS**

## **AMS Chapter Vice President**

2019-2020

Acting Vice President of the UCR Graduate Student Chapter of the American Mathematics Society. The primary duty of this position is co-organizing the UCR Math Graduate Student Seminar.

#### **Grad Recruitment Ambassador**

2019-2020

Volunteer position helping the UCR Math department with recruitment of new graduate students. Duties include attending local and national recruitment events and assisting department administration with organizing events.

#### **SKILLS**

f Proficiency with LATEX

**G** Proficiency with Google products

A Experience with Linux systems

Graphic design experience

#### LANGUAGES

- English
- Spanish (Conversational)

#### **HOBBIES**

- Jogging
- Juggling
- **™** Tetris

#### **CONFERENCES & WORKSHOPS**

## 2019 Cascade Topology Seminar

University of Manitoba—SEPTEMBER

## MSRI Summer School: Geometric Group Theory

Casa Matemática Oaxaca—JULY

#### LG&TBQ

*University of Michigan*—JUNE

## Graduate Student Conference in Algebra, Geometry, and Topology

*Temple University—*JUNE

### **MathConnections**

University of California, Riverside—MAY

## **Redbud Topology Conference**

Oklahoma University—APRIL

## Graduate School on the Geometry of Teichmuller spaces

Simons Center for Geometry and Physics—APRIL

#### 2018 MathConnections

University of California, Riverside—MAY

## Joint Mathematics Meeting

San Diego Convention Center—JANUARY

## 2017 **AMS Fall Western Sectional**

University of California, Riverside—NOVEMBER

#### **MathConnections**

University of California, Riverside—MAY

## MAA SoCal-Nev Section Meeting

California State University, Northridge—APRIL

#### **PRESENTATIONS**

#### 2019 **The Bigon Criterion**

*MSRI: Geometric Group Theory—9 JULY* 

#### **Constructing Ativah-Kodaira Fibrations**

UCR Topology Seminar—23 MAY

#### Your Daily Recommended Serving of Fiber Bundles

UCR Graduate Student Seminar—8 MARCH

#### The Mapping Class Groups of Some Surfaces

UCR Topology Seminar—21 FEBRUARY

## An Introduction to Surfaces, Fiber Bundles, and Other Words

UCR Topology Seminar—14 FEBRUARY

## **Bigon Criterion**

UCR Topology Seminar—1 NOVEMBER

# **Intersection Numbers of Simple Closed Curves on Surfaces**

*UCR Topology Seminar*—25 OCTOBER

# **Constructing Arithmetic Hyperbolic Surfaces**

UCR Graduate Student Seminar—1 JUNE

## **SERVICE & PROJECTS**

## **Advanced Mathematics Program**

SUMMER 2019

Leading a workshop in Group Theory for undergraduate students transitioning from lower-division to upper-division coursework. The program particularly targets students from underrepresented groups.

## **Topology Qualifying Exam Prep**

**SUMMER 2019** 

Running a seminar to help junior graduate students in preparation for the topology qualifying exam.

#### Microtutorial in Mathematics

2017-2019

Writing and acting in videos working out application problems in calculus, particularly in the life sciences and business calculus.

## **Undergraduate Research Mentor**

SPRING 2019

A 10-week program helping undergraduate students learn about advanced topics in maps and understand open problems in the field.

# MathConnections Co-organizer

2019

Organizing a graduate student conference at UCR in an effort bring together the math community in Southern California.

# Undergraduate Research

SPRING 2016

A 10-week research project exploring results in number theory regarding perfect numbers and related topics.

# Undergraduate Research

SPRING 2015

A 10-week research project exploring methods for rating and ranking for applications in sports and online content curation.