

WILL HOFFER

WEBSITE: <https://willhoffer.com> ◊ EMAIL: email@willhoffer.com

EDUCATION

University of California, Riverside

September 2019 - Present

Masters of Mathematics, June 2021

PhD Doctoral Candidate (Mathematics)

Overall GPA: 3.98/4.00

Advisor: Michel Lapidus

The Ohio State University

August 2015 - May 2019

Bachelors of Science in Mathematics and Physics (*cum laude; with Honors in the Arts & Sciences*)

RESEARCH

Research Interests

Resurgent Asymptotics

Fractal Geometry

Mathematical Physics

Publications

- W. Hoffer, A. Vengal, and V. Winstein, "The Structure of Biquandle Brackets," *Journal of Knot Theory and its Ramifications*, Vol. 29, Is. 6 (May 2020.) <https://doi.org/10.1142/S021821652050042X>

SELECTED SEMINAR AND CONFERENCE PRESENTATIONS

American Mathematical Society, Western Sectional Meeting

May 2021

https://www.ams.org/meetings/sectional/2282_program_saturday.html#2282:SS8A

- *On resurgent analysis of explicit formulae in fractal geometry* 05/01/2021

Functional Analysis and Mathematical Physics Seminar

December 2020

<https://www.fresnostate.edu/csm/math/colloquia-seminars/famp.html>

CSU Fresno

- *From Rainbows to Resurgence: Asymptotics of the Airy Function* 12/11/20

Fractal Research Group/Math. Physics and Dynamical Systems Seminar

2020-Present

<http://www.math.ucr.edu/~frgmpds/seminars.html>

UC Riverside

- *A First Introduction to Resurgence, Parts I & II* 4/16/20, 5/27/20
- *Rainbows Quantum Billiards, and the Birth of Reflections, Parts I & II* 10/22/20, 11/12/20
- *On Zeta Functions and the Stokes Phenomenon* 04/15/21

Young Mathematicians Conference

8/10/18 - 8/12/18

<https://ymc.math.osu.edu/2018/program.php>

Ohio State/National Science Foundation

- *Combining Quandle Cohomological and State-Sum Polynomial Knot Invariants*

Shenandoah Undergraduate Mathematics and Statistics Conference

10/13/18

<http://www.jmu.edu/mathstat/sums/index.shtml>

James Madison University

- *Combining Biquandle Knot Invariants*

RELEVANT EMPLOYMENT

Teaching Fellow

Fall 2021

Mathematics Department

University of California, Riverside

- I help mentor and train new graduate students, in particular those who are new to teaching.

UCR Graduate Student Mentor

<https://gradmentors.ucr.edu/>

Fall 2021 - Present

University of California, Riverside

- I mentor a group of first year graduate students, helping them to adjust and succeed.

Microtutorials in Mathematics Video Program

<https://microtutorials.ucr.edu/>

Spring 2020

University of California, Riverside

- Content creator for UCR's mathematics supplementary instructional videos project

Teaching Assistant

Mathematics Department

September 2019 - Present

University of California, Riverside

- TA & additional lecturer for courses including dynamical systems, differential equations, regular and multivariable calculus, linear algebra, etc.

Student Instructional Associate

Mathematics Department

August 2016 - Spring 2019

Ohio State

- TA & Grader for courses including precalculus, trigonometry, and algebra
- Tutor for the Mathematics and Statistics Learning Center

SOFTWARE PROFICIENCY**Programming Languages**

- Proficient: Java/Javascript, Python, C/C++, HTML/CSS/SCSS
- Familiar: Ruby, R, Liquid, Julia

Software Programs/Tools

- Proficient: Mathematica, LaTeX, Git/GitHub, RStudio, VSCode
- Familiar: MatLab

NOTABLE ACHIEVEMENTS & ACCOLADES**Research Accolades**

- First Place in the Research Poster Competition at James Madison's SUMS Conference 2018

Academic Accolades

- Phi Beta Kappa Honorary Society Member

LEADERSHIP, ORGANIZATIONS, & OUTREACH**Professional Memberships**

- American Mathematical Society (AMS) Member September 2019 - Present
- Spectra: The Association for LGBTQ+ Mathematicians Member November 2020 - Present

President of UCR's AMS Graduate Student Chapter

September 2021-Present

- I am the lead officer, and I am in charge of running UCR's Graduate Student Seminar.

Mentorship Positions (Volunteer & Employment)

- University of California, Riverside Graduate Student Mentor (Fall 2021 - Present)
- University of California, Riverside Teaching Fellow (Fall 2021)
- Ohio State University Honors & Scholars Program Peer Mentor (August 2016-May 2019)