# Lucy Martinez

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## **Education**

BS in Mathematics, Stockton University	May 2021
Minor in Computer Science, Stockton University	May 2021

#### **Academic Positions**

#### **Stockton University**

1. Head Mathematics Tutor

September 2020-May 2021

2. Educational Opportunity Fund (EOF) Instructional Assistant

June-August 2018

Assisted the professor and students with course material. Attended afternoon and evening tutoring modules for a six week program designated for low-income, underprivileged students.

3. Mathematics Tutor

April 2018-Present

4. Workshop Mathematics Tutor

January 2018-Present

Serve as a math workshop tutor to linked sections of Quantitative Reasoning courses. Proctored quizzes and graded them. Provided one-on-one assistance and reinforced material learned in class to the students.

#### **Awards and Honors**

NSF Graduate Research Fellowship	2021 - 2026
Princeton Prospective PhD Preview (P3) Program - Honorific Mention	2020
Stockton University Foundation Scholarship	2019 - 2021
Math Alliance Scholar	2019 - 2021
Hispanic Fund Scholarship	2019 - 2021
Dean's List	2017 - 2021

# **Research Experiences**

#### East Tennessee State University, ETSU REU

June-August 2020

- 1. Research advised by Dr. Fernando Piñero.
- 2. Title: Minimum Rank of Regular Bipartite Graphs.

# East Tennessee State University, ETSU REU

June-August 2020

- 1. Research advised by Dr. Anant Godbole.
- 2. Title: Involution Derangement Graphs.

# Stockton University

March 2020-Present

- 1. Research advised by Dr. Bradley Forrest.
- 2. Title: Nonisomorphic Trees and their Chromatic Symmetric Function.

### Mathematical Sciences Research Institute, MSRI-UP

June-July 2019

- 1. Research advised by Dr. Pamela E. Harris.
- 2. Title: On Kostant's weight q-multiplicity formula for  $\mathfrak{sl}_4(\mathbb{C})$ . AAECC (2020).

#### **Research Publications**

On Kostant's weight q-multiplicity formula for  $\mathfrak{sl}_4(\mathbb{C})$ , with Rebecca E. Garcia, Pamela E. Harris, Marissa Loving, David Melendez, Joseph Rennie, Gordon Rojas, and Daniel Tinoco. AAECC (2020).

# **Talks and Presentations**

#### **Poster Presentations**

- 2. Colorado Convention Center, Joint Math Meetings (JMM), January 2020 Weyl alternation sets for  $\mathfrak{sl}_4(\mathbb{C})$
- 1. The Hawaii Convention Center, SACNAS Conference, November 2019 Weyl alternation sets for  $\mathfrak{sl}_4(\mathbb{C})$

#### **Research Talks**

- 10. Moravian College, Student Mathematics Conference, February 2021 Minimum Rank of Regular Bipartite Graphs
- Joint Math Meetings, Special Session on Research in Mathematics by Undergraduates and Students in Post-Baccalaureate Programs, January 2021 Minimum Rank of Regular Bipartite Graphs
- 8. Canadian Mathematical Society Winter Meeting, Algebraic Combinatorixx (Women in AC), December 2020
  - Minimum Rank of Regular Bipartite Graphs
- 7. Stockton University, New Jersey, Math Seminar, November 2020, December 2020 *Chromatic Symmetric Function of Trees*
- 6. The Ohio State University, Young Mathematicians Conference, August 2020 *Involution Derangement Graphs*
- 5. Clemson University, South Carolina, REU Conference, July 2020 *Involution Derangement Graphs*
- 4. Stockton University, New Jersey, Math Seminar, March 2020 Geometric Constructions for Lie Algebra Type A<sub>3</sub>
- 3. Moravian College, Student Mathematics Conference, February 2020 Closed formulas for Kostant's Partition Function for  $sl_4(\mathbb{C})$
- Dalhousie University, Canada, Combinatorial Algebra meets Algebraic Combinatorics, January 2020
   Geometric Constructions for Lie Algebra Type A<sub>3</sub>
- 1. Mathematical Sciences Research Institute, MSRI, Berkeley, CA, July 2019 The q-Analog of Kostant's Weight Multiplicity Formula for  $\mathfrak{sl}_4(\mathbb{C})$

# **Writing Contributions to the Profession**

Ten Tips to Being Productive Online for Students - and Everyone. Math Values. February 25, 2021. Supporting math majors and grad students in the time of pandemic, with Pamela E. Harris, and Giovanny Marquez, e-Mentoring Network in the Mathematical Sciences-connecting students and mentors. AMS blogs. January 26, 2021.

Evidence-based Practices for Effective Mentorship, with Abbe Herzig, Notices of the AMS. Submitted. Networking Basics for Math Undergrads, with Joanne Beckford, Alex Christensen, Pamela E. Harris, Eduardo Torres Davila, and Fabrice O. Ulysse, e-Mentoring Network in the Mathematical Sciences-connecting students and mentors, AMS blogs, July 21, 2020.

Learning During the Pandemic: What we wish our professors and mentors knew, with Mayleen Cortez, Melissa Gutierrez, Pamela E. Harris, Brooke Keene-Gomez, Amaury Minino, Alicia Prieto Langarica, Kelemua Tesfaye, and Stephanie, e-Mentoring Network in the Mathematical Sciences-connecting students and mentors. AMS blogs. May 04, 2020.

Bank of REU/Grad Fair Questions, with Eduardo Torres Davila, e-Mentoring Network in the Mathematical Sciences-connecting students and mentors. AMS blogs. January 24, 2019.

### **Professional Activities**

The Women of Color Project- Harvard University	October 2020
IMA/Math Alliance Workshop on Career Paths in the Mathematical Sciences	July 13-15, 2020
Modern Math Workshop- MSRI	October, 2019
Field of Dreams- Math Alliance	November, 2019
Alliance of Educational Opportunity Fund (EOF) Students of NJ	
(Service-Learning Coordinator)	September 2019- May 2020
Math Club (Member)	September 2018- May 2021

### **Community Service**

Panelist, AMS Committee on Education Panel Current Issues - Joint Mathematics Meetings	January 2021
Panelist, The Summer Math and Science Honors Academy (SMASH) - Berkeley, CA.	July 2020
Panelist, IMA/Math Alliance Workshop - University of Minnesota.	July 2020
Panelist, Educational Opportunity Fund Academy (EOF) - Stockton University, NJ.	July 2020
Homework Completion Volunteer, Atlantic City Library, NJ.	March 2020

Panelist, The Summer Math and Science Honors Academy (SMASH) - Berkeley, CA.
Proctor, High School Math Mayhem Competition - Stockton University, NJ.

July 2019 April 2019

# **Grants and Other Funding**

2. Stockton University REU (\$1,000)

December 2019

1. Stockton Student Travel Fund (\$1,250)

October 2019

# **Memberships**

Association for Women in Mathematics (AWM)

American Statistical Association (ASA)

Pi Mu Epsilon (Member, 2019-2020 Secretary)

Advancement of Chicanos/Hispanics and Native Americans in Science,

(SACNAS) July 2019-July 2021

### **Skills**

# **Technology**

Proficient in LATEX, Sage, and Maple. Familiar with virtualization and assembly code. Some experience with HTML, Java and Python.

#### Other

Fluent in English and Spanish, both written and verbal.