

# Lucy Martinez

Stockton University, Department of Mathematics  
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## Education

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

\*(Applied to 2020 NSF Graduate Research Fellowship and P.D. Soros Fellowship for New Americans)

## 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.

## Research Experiences

<b>East Tennessee State University, ETSU REU</b>	June-August 2020
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1. Research advised by Dr. Fernando Piñero.
2. Title: Minimum Rank of Regular Bipartite Graphs.

<b>East Tennessee State University, ETSU REU</b>	June-August 2020
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1. Research advised by Dr. Anant Godbole.
2. Title: Involution Derangement Graphs.

<b>Stockton University</b>	March 2020-Present
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1. Research advised by Dr. Bradley Forrest.
2. Title: Nonisomorphic Trees and their Chromatic Symmetric Function.

<b>Mathematical Sciences Research Institute, MSRI-UP</b>	June-July 2019
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1. Research advised by Dr. Pamela E. Harris.
2. Title: On Kostant's weight  $q$ -multiplicity formula for  $\mathfrak{sl}_4(\mathbb{C})$ . AAEECC (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. AAEECC (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

9. 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  $A_3$*
3. Moravian College, Student Mathematics Conference, February 2020  
*Closed formulas for Kostant's Partition Function for  $sl_4(\mathbb{C})$*
2. Dalhousie University, Canada, Combinatorial Algebra meets Algebraic Combinatorics, January 2020  
*Geometric Constructions for Lie Algebra Type  $A_3$*
1. Mathematical Sciences Research Institute, MSRI, Berkeley, CA, July 2019  
*The  $q$ -Analog of Kostant's Weight Multiplicity Formula for  $sl_4(\mathbb{C})$*

## Awards and Honors

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Princeton Prospective PhD Preview (P3) Program - Honorific Mention	October 2020
Stockton University Foundation Scholarship	September 2019-May 2021
Math Alliance Scholar	September 2019-September 2021
Hispanic Fund Scholarship	September 2019-September 2021
Dean's List	All semesters

## Writing Contributions to the Profession

[Supporting math majors and grad students in the time of pandemic](#), with Pamela E. Harris, and Giovanni 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

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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

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Panelist, <i>AMS Committee on Education Panel Current Issues</i> - Joint Mathematics Meetings	January 2021
Panelist, <i>The Summer Math and Science Honors Academy (SMASH)</i> - Berkeley, CA.	July 2020
Panelist, <i>IMA/Math Alliance Workshop</i> - University of Minnesota.	July 2020
Panelist, <i>Educational Opportunity Fund Academy (EOF)</i> - Stockton University, NJ.	July 2020
Homework Completion Volunteer, <i>Atlantic City Library, NJ.</i>	March 2020
Panelist, <i>The Summer Math and Science Honors Academy (SMASH)</i> - Berkeley, CA.	July 2019

Proctor, *High School Math Mayhem Competition* - Stockton University, NJ.

April 2019

## Grants and Other Funding

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

December 2019

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

October 2019

## Memberships

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Association for Women in Mathematics (AWM)

July 2020-July 2021

American Statistical Association (ASA)

November 2019-November 2020

Pi Mu Epsilon (Member, 2019-2020 Secretary)

September 2019- May 2021

Advancement of Chicanos/Hispanics and Native Americans in Science,  
(SACNAS)

July 2019-July 2021

## Skills

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### Technology

Proficient in  $\text{\LaTeX}$ , 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.