

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

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

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

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

8. Joint Math Meetings, Special Session on Research in Mathematics by Undergraduates and Students in Post-Baccalaureate Programs, Expected January 2021
Minimum Rank of Regular Bipartite Graphs
7. Canadian Mathematical Society Winter Meeting, Algebraic Combinatorixx (Women in AC), Expected December 2020
Minimum Rank of Regular Bipartite Graphs

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 $\mathfrak{sl}_4(\mathbb{C})$

Awards and Honors

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

Writing Contributions to the Profession

[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, <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, <i>High School Math Mayhem Competition</i> - Stockton University, NJ.	April 2019

Grants and Other Funding

2. Stockton University REU (\$1,000)
1. Stockton Student Travel Fund (\$1,250)

December 2019
October 2019

Memberships

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

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.