Benjamin Lantz

University of Rhode Island
Department of Mathematics
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Education

2017 - 2020
PhD Mathematics
University of Rhode Island, Kingston, RI
Degree Conferred: May 2020
Advisor: Michael Barrus   GPA: 4.0

2012 - 2014
M.S. Mathematics
Northern Arizona University, Flagstaff, AZ
Thesis Title: Symmetries of Tetravalent Metacirculant Graphs of Type III
Thesis Advisor: Stephen Wilson   GPA: 3.89

2008-2012
B.S. Mathematics and B.S. Geography
Northern Arizona University, Flagstaff, AZ
Graduated Magna Cum Laude GPA: 3.91

Employment

2020 - Present
University of Rhode Island , Kingston, RI
Lecturer

2019-Present
Community College of Rhode Island, Warwick, RI
Adjunct Instructor

2017 - 2020
University of Rhode Island , Kingston, RI
Graduate Teaching Assistant

2014-2017
Northern Arizona University, Flagstaff, AZ
Instructor

2012-2014
Northern Arizona University, Flagstaff, AZ
Graduate Teaching Assistant

Teaching Experience

Pre-Calculus Assistant Coordinator (Fall 2015 - Spring 2017)
Helped run weekly coordination meetings, observed/mentored GTAs, helped implement co-teaching in Fall 16 and Spring 17, used MyMathLab to help create/edit assignments and use gradebook, and helped create schedule

Alternative Teaching Strategies Used
Emporium model, hybrid flipped classroom, co-teaching, and co-requisite course

Transition Pre-Calculus course at URI to open-source textbook (Summer 18)
Created WeBWorK assignments, reworked schedule, mapped old textbook to new one, and created supplemental lectures.

Transition College Algebra at URI to open-source textbook (Summer 19)
Created WeBWorK assignments and helped map old textbook to new one.

Technology
Proficient in WeBWorK, MyMathLab, Cengage, WileyPLUS, online learning management portals (BBlearn, Blackboard, Sakai, Brightspace)

Classes Taught

Community College of Rhode Island

College Algebra (1 section in 1 academic term)

Calculus I (1 section in 1 academic term) (shifted online due to COVID-19)

Applied Precalculus (1 section in 1 academic term)

University of Rhode Island

Linear Algebra (1 section in 1 academic term)

Calculus II (7 sections in 6 academic terms) (Spring 2020 shifted online due to COVID-19)

Applied Calculus II (1 section in 1 academic term)

Calculus I (4 sections in 3 academic terms)

Pre-Calculus (2 sections in 2 academic terms)

Northern Arizona University

Differential Equations (2 sections over 2 academic terms)

Discrete Math (3 sections over 2 academic terms)

Calculus III (2 sections over 2 academic terms)

Calculus II (5 sections over 2 academic terms)

Calculus I (6 sections over 4 academic terms)

Pre-Calculus: (6 sections over 3 academic terms)

    Assistant Coordinator: Fall 2015 - Spring 2017

Finite (Business) Mathematics (2 sections in 1 academic term)

Quantitative Reasoning (7 sections over 5 academic terms)

College Algebra (2 sections in 1 academic term)

Relevant Skills

Proficient in Latex, Tikz, Lyx, Microsoft Office, Overleaf, Google Docs.

Experience using Python, Sage, Magma, Mathematica, MATLAB, GAP, Groups and Graphs, and Geogebra.

Papers

Lantz, Benjamin (2019) "Graphs in which the Maxine heuristic produces a maximum independent set" (submitted to Graphs and Combinatorics), arXiv:1910.06201

Barrus, Guillaume, Lantz, "The distinguishing chromatic number of circulant graphs," (2019+) (manuscript in preparation)

Lantz, Benjamin (2017) "Symmetries of Tetravalent Metacirculant Graphs of Type III," Master's Thesis, NAU.

Lantz, Ben and Zowada, Michael (2012) "An Overview of Complex Hadamard Cubes," Rose-Hulman Undergraduate Mathematics Journal: Vol. 13 : Iss. 2, Article 3.

Presentations

"Graphs in which the Maxine heuristic produces a maximum independent set", <u>MCCCC 33</u>, October 12, 2019, Rochester, NY

"Symmetries of Tetravalent Metacirculant Graphs of Type III", <u>Discrete Math Seminar URI</u>, March 2019, Kingston, RI

"Symmetries of Tetravalent Metacirculant Graphs of Type III", <u>ACGT Seminar NAU</u>, February/March 2019, Flagstaff, AZ

"Symmetries of Tetravalent Metacirculant Graphs of Type III", <u>Math Dept Colloquium NAU</u>, April 2014, Flagstaff, AZ

"An Overview of Complex Hadamard Cubes", with Michael Zowada, <u>SUnMaRC</u>, April, 2012, Tucson, AZ

"An Overview of Complex Hadamard Cubes", with Michael Zowada, <u>NAU Undergraduate Symposium</u>, April, 2012, Flagstaff, AZ (poster presentation)

"Flagstaff Food Deserts", with Zhujun Liu, <u>NAU Undergraduate Symposium</u>, April, 2012, Flagstaff, AZ (poster presentation)

Service Activities

2015-2016: NAU Honor's Day Committee (Fall 15 - Spring 16), organizing the annual Honor's Day in which undergraduate and graduate students are honored for academic achievement

2015-2017: NAU Contest Committee (Fall 15 - Spring 17), organizing high school and middle school math contests in the Northern Arizona area, including creating all questions and grading

2008-2012: Treasurer (and four year member) of NAU's Student Athlete Advisory Committee (SAAC) (Spring 09 - Spring 12). Acted as liaison between student athletes and administration and advocated for the men's tennis team to the administration.

2004-2008: Vice President of *In Youth We Trust* of the *Community Foundation of Northern Illinois* completing over 150 hours of community service including the assistance of many youth led programs in Northern Illinois

Awards and Honors

2013: Recipient of Johnson-Ratliff Scholarship Recipient at NAU

2008-2012: Dean's List at NAU

2008-2012: Four year member of NAU's NCAA Division 1 Men's Tennis Team

2011-2012: Big Sky Conference All-Academic Team