

Matt Dallas CV

Department of Mathematics
University of Florida
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Education

Ph.D. in Mathematics (expected) 2024
Advisor: Sara Pollock
University of Florida, Gainesville, Florida

M.S. in Mathematics 2021
University of Florida, Gainesville, Florida

B.S. in Mathematics and Physics 2019
Georgia College and State University, Milledgeville, Georgia

Research Interests

Nonlinear solvers, acceleration and extrapolation methods and their applications to nonlinear partial differential equations, fractional calculus.

Employment

Research Assistant, *University of Florida* 2020-present
– Projects: Application of Anderson Acceleration to Newton's Method

Teaching Assistant, *University of Florida* 2019-present
– Lecturer for Calculus I
– Instructor for Trigonometry
– Grader for Introduction to Numerical Analysis
– Teaching assistant for Precalculus and Calculus I
– Tutor for Calculus I-III, Precalculus, and Trigonometry.

Supplementary Instruction (SI) Coach, *Georgia College and State University* 2018-2019
– Trained and developed new SI leaders

Supplementary Instruction Leader, *Georgia College and State University* 2017-2018
– Introductory Physics I and Survey of Calculus I
– Developed and lead two 90 minute study sessions per week to supplement lectures

Peer Tutor, *Georgia College and State University* 2016-2019

Publications

M. Dallas and S. Pollock, Newton-Anderson at Singular Points, In Press, *International Journal of Numerical Analysis and Modeling*.

M. Dallas, Fractional Calculus and its Connection to the Tautochrone, *Proceedings of the National Conference on Undergraduate Research*, 2019.

Conference Talks

Florida-Georgia Applied Computational Math Student Workshop 2023
Florida State, Tallahassee, Florida

Society of Industrial and Applied Mathematics (SIAM) Southeastern Atlantic Section (SEAS) 2023
Virginia Tech, Blacksburg, Virginia

Copper Country Workshop on Applied Mathematics, Statistics, and Data Science 2022
Michigan Tech, Houghton, Michigan

National Conference for Undergraduate Research 2019
Kennesaw State, Atlanta, Georgia

Seminar Talks

Singular Newton-Anderson and Bifurcation Phenomena 2023
SIAM Gators Applied/Numerical Seminar, University of Florida

The Newton-Anderson Algorithm at Singular Points 2022
SIAM Gators Applied/Numerical Seminar, University of Florida

Newton's Method at Singular Points 2021
SIAM Gators Applied/Numerical Seminar, University of Florida

Fractional Calculus: Motivation and Fundamentals 2019
Graduate Mathematics Association Colloquium, University of Florida

Poster Presentations

Newton-Anderson at Singular Points 2023
Acceleration and Extrapolation Methods Workshop, Institute for Computational and Experimental Research in Mathematics (ICERM), Brown University, Providence, Rhode Island

Service

Vice President of American Mathematical Society Graduate Student Chapter 2023-present
University of Florida

Mathematics Festival Volunteer 2023
University of Florida

President of SIAM Gators 2022-2023
University of Florida

Vice President of SIAM Gators <i>University of Florida</i>	2021-2022
Graduate Student Mentor for First Year Mathematics Graduates Students <i>University of Florida</i>	2021-present
Julia Robinson Mathematics Festival Volunteer <i>Harn Museum, Gainesville, Florida</i>	2019

Organization

Minisymposium	March 2023
<ul style="list-style-type: none"> - SIAM SEAS at Virginia Tech - Title: Advances in numerical partial differential equations solvers for nonlinear and complex multi-physics systems. 	
Simple Words Seminar, <i>University of Florida</i>	2023-present
<ul style="list-style-type: none"> - Talks given by faculty members from a variety of specializations aimed a general mathematical audience. - Primarily attended by first and second year graduate students. 	
ApplyIt, <i>University of Florida</i>	2023-present
<ul style="list-style-type: none"> - Biweekly coding sessions attended by graduate students. - Examples of sessions: programming Turing machines, solving systems of differential equations, programming simple games, and general problem solving. 	
Math Slam, <i>University of Florida</i>	2023
<ul style="list-style-type: none"> - Competition where graduate students have ten minutes to present their research to a general mathematical audience. - Attended by undergraduates and graduates. Two faculty members served as judges. 	
Applied Book Club, <i>University of Florida</i>	2022-present
<ul style="list-style-type: none"> - Attended by graduate students biweekly to discuss applied mathematics literature, both classic and recent. 	
SIAM Gators Applied/Numerical Seminar, <i>University of Florida</i>	2022-2023
<ul style="list-style-type: none"> - Weekly seminar attended by faculty and graduate students with talks from internal and external speakers. 	

Awards and Honors

First place: SIAM SEAS Student Presentation Awards <i>Virginia Tech</i>	2023
Graduate Teaching Certificate of Excellence <i>University of Florida</i>	2021
