

Adam D. Gregory
14 October 1996

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Office Address

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EDUCATION

Doctor of Philosophy, Mathematics
University of Florida; Gainesville, FL
Advisor: Zachary Hamaker

Ongoing

Bachelor of Science, Mathematics
Western Carolina University; Cullowhee, NC
Minor in Chemistry
Major GPA: 4.00; Overall: 3.99
Summa Cum Laude

May 2019

TEACHING EXPERIENCE

- MAC2313 — Analytical Geometry & Calculus III
University of Florida; Gainesville, FL
Instructor
Summer 2024
- MAC1114 — Trigonometry
University of Florida; Gainesville, FL
Instructor
Spring 2024
- MAC2233 — Survey of Calculus I
University of Florida; Gainesville, FL
Teaching Assistant
Fall 2023
- MAC2234 — Survey of Calculus II
University of Florida; Gainesville, FL
Teaching Assistant
Fall 2023
- MAC2313 — Analytical Geometry & Calculus III
University of Florida; Gainesville, FL
Teaching Assistant
Fall 2021
- MAC1147 — Precalculus, Algebra & Trigonometry
University of Florida; Gainesville, FL
Teaching Assistant
Spring 2020
- MAC2313 — Precalculus, Algebra & Trigonometry
University of Florida; Gainesville, FL
Teaching Assistant
Fall 2019
- MATH250 — Introduction to Logic & Proof
Western Carolina University; Cullowhee, NC
Teaching Assistant
Fall 2018

PUBLICATIONS

1. Lenart's Bijection via Bumpless Pipe Dreams
The Electronic Journal of Combinatorics **30(1)** (2023), #P1.24
Joint work with Z. Hamaker

2. Pattern Restricted quasi-Stirling Permutations
Australas. J. Combin. **74(3)** (2019), 389–407
Joint work with K. Archer, B. Pennington and S. Slayden
3. Edge-Transitive Graphs and Combinatorial Designs
Involve, a Journal of Mathematics **12-8** (2019), 1329–1341
Joint work with D. Narayan, H. Newman and H. Miranda
4. Infinite Families of Asymmetric Graphs
AKCE International Journal of Graphs and Combinatorics, **17-3** (2020), 1000–1009
Joint work with A. Brewer, R. Flórez, Q. Jones, D. Narayan, and L. Rodriquez

PREPRINTS

5. Vexillary double Edelman–Greene coefficients are Graham positive
In preparation
Joint work with Z. Hamaker and T. Yu
6. The Asymmetric Index of a Graph
arXiv: 1808.10467
Joint work with A. Brewer, E. Farnsworth, N. Gomez, Q. Jones, H. Lino and D. Narayan
7. On Covers of Dihedral 2-Groups by Powerful Subgroups
arXiv: 1901.03372
Joint work with R. Atanasov, L. Guatelli and A. Penland

PRESENTATIONS

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|---|----------------|
| 1. “Vexillary double Edelman–Greene coefficients are Graham positive” (poster)
SaganFest – The Conference on Enumerative and Algebraic Combinatorics
University of Florida; Gainesville, FL | February 2024 |
| 2. “Vexillary double Edelman–Greene coefficients are Graham positive”
North Carolina State University Algebra & Combinatorics Seminar; Raleigh, NC | November 2023 |
| 3. “Utility of combinatorial formulas for special polynomials”
UF Graduate Mathematics Association Colloquium; Gainesville, FL | September 2023 |
| 4. “Vexillary double Stanley symmetric functions”
Michigan State University Combinatorics & Graph Theory Seminar; online | April 2023 |
| 5. “Lenart’s Bijection via Bumpless Pipe Dreams”
Kennesaw State University Discrete Mathematics Seminar; Marietta, GA | November 2022 |
| 6. “Some open problems from a new insertion algorithm”
UF Graduate Student Combinatorics Seminar; Gainesville, FL | October 2022 |
| 7. “The Asymmetric Index of a Graph”
University of Florida Combinatorics Seminar; Gainesville, FL | November 2019 |
| 8. “Pattern Restricted quasi-Stirling Permutations”
AMS Fall Southeastern Sectional Meeting; Gainesville, FL | November 2019 |
| 9. “Computational Chemistry Studies of Europium (III) Metal-based
Coordination Complexes for Luminescent Applications”
National Conference on Undergraduate Research; Kennesaw, GA | April 2019 |
| 10. “The Asymmetric Index of a Graph and Families of Asymmetric Graphs”
MAA Southeastern Section Conference at Lee University; Cleveland, TN | March 2019 |
| 11. “The Powerful Subgroup Covering Number of Dihedral 2-Groups”
Joint Mathematics Meetings Contributed Session; Baltimore, MD | January 2019 |
| 12. “The Asymmetric Index of a Graph and Families of Asymmetric Graphs”
Joint Mathematics Meetings Special Session; Baltimore, MD | January 2019 |

13. "The Asymmetric Index of a Graph" November 2018
Carolina Math Seminar at the University of South Carolina; Columbia, SC
14. "The Asymmetric Index of a Graph" October 2018
Western Carolina University Departmental Colloquium; Cullowhee, NC
15. " p -Groups Covered by Powerful p -Subgroups" March 2018
MAA Southeastern Section Conference at Clemson University; Clemson, SC
16. "Pattern Avoidance and Statistics of quasi-Stirling Permutations" January 2018
Joint Mathematics Meetings Undergraduate Poster Session; San Diego, CA
17. "Pattern Avoidance and Statistics of quasi-Stirling Permutations" November 2017
UNC Greensboro Regional Mathematics and Statistics Conference; Greensboro, NC
18. "Pattern Avoidance and Statistics of quasi-Stirling Permutations" September 2017
Western Carolina University Departmental Colloquium; Cullowhee, NC

ADDITIONAL RESEARCH EXPERIENCE

- "Computational Chemistry Studies of Uranium-based Materials with Applications in Nuclear Waste Treatments" Spring 2018 - Spring 2019
Western Carolina University; Cullowhee, NC
Joint work with C. DeSilva and N. Joyner
- "Structure of Powerful p -Groups and their Subgroups" Fall 2017 - Spring 2019
Western Carolina University; Cullowhee, NC
Joint work with R. Atanasov and A. Penland

SERVICE

- Chair for the Professional Development Seminar Fall 2021 - Spring 2022
University of Florida; Gainesville, FL
- Graduate student mentor to Fatima Akinola and Sean Mandrick Fall 2021 - Spring 2024
University of Florida; Gainesville, FL
- Committee member for Chancellor's Distinguished Teaching Award Fall 2018 - Spring 2019
Western Carolina University; Cullowhee, NC
- Hiring committee member for Mathematics Tutoring Center Fall 2018 - Spring 2019
Western Carolina University; Cullowhee, NC
- Advisory Board member for Mathematics Tutoring Center Fall 2018 - Spring 2019
Western Carolina University; Cullowhee, NC
- Departmental Office Assistant Fall 2018 - Spring 2019
Mathematics & Computer Science Department
Western Carolina University; Cullowhee, NC
- Departmental Student Ambassador Fall 2017 - Spring 2019
Mathematics & Computer Science Department
Western Carolina University; Cullowhee, NC

AWARDS

- UF Mathematics Graduate Student Teaching Award Fall 2022 - Spring 2023
University of Florida; Gainesville, FL
- Dean's Outstanding Scholar Award Fall 2018 - Spring 2019
Western Carolina University; Cullowhee, NC
- Senior Mathematics Excellence Award Fall 2018 - Spring 2019
Western Carolina University; Cullowhee, NC

- Walt and Susan Patterson Prize (\$100) – Outstanding Presentation March 2019
MAA Southeastern Section Conference at Lee University; Cleveland, TN
- Mathematics Jeopardy Contest (First Place) March 2019
MAA Southeastern Section Conference at Lee University; Cleveland, TN
- Crum Mathematics Scholarship Fall 2017 - Spring 2019
Western Carolina University; Cullowhee, NC
- Curtis and Enid Meltzer Scholarship Fall 2017 - Spring 2019
Western Carolina University; Cullowhee, NC
- Freshman Mathematics Excellence Award Fall 2015 - Spring 2016
Western Carolina University; Cullowhee, NC
- Chancellor's List (3.8 GPA or higher) Fall 2015 - Spring 2019
Western Carolina University; Cullowhee, NC
- Chancellor's Academic Scholarship Award Fall 2015 - Spring 2019
Western Carolina University; Cullowhee, NC

EXTRACURRICULAR ACTIVITIES

- Mathematics Club
 - President Fall 2018 - Spring 2019
 - Vice President Fall 2017 - Spring 2018
 - Member Fall 2015 - Spring 2019
 - Western Carolina University; Cullowhee, NC
- *Kryptos* – International Cryptanalysis Challenge
 - Fourth place overall Spring 2019
 - Third place overall Spring 2018
 - Honorable mention Spring 2017
- William Lowell Putnam Contest
 - Score: 1 (B2) Fall 2018
 - Score: 0 Fall 2017
 - Score: 0 Fall 2016
- Mathematics Jeopardy Team Fall 2016 - Spring 2019
Western Carolina University; Cullowhee, NC

REFERENCES

- Zachary Hamaker, Assistant Professor
University of Florida; Gainesville, FL
e-mail: zhamaker@ufl.edu
- Sherry Tornwall, Master Lecturer Emeritus
University of Florida; Gainesville, FL
e-mail: tornwall@ufl.edu
- Darren Narayan, Professor
Rochester Institute of Technology; Rochester, NY
e-mail: dansma@rit.edu
- Risto Atanasov, Professor
Western Carolina University; Cullowhee, NC
e-mail: ratanasov@email.wcu.edu