

# DORIAN SMITH

School of Mathematics  
University of Minnesota  
206 Church St. SE  
Minneapolis, MN 55455

Phone: (949) 903-0683  
Email: [smi01055@umn.edu](mailto:smi01055@umn.edu)  
[dorian.ayana.smith@gmail.com](mailto:dorian.ayana.smith@gmail.com)

## EDUCATION

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- University of Minnesota** – PhD Candidate in Mathematics Expected May 2025  
Advisor: Dr. Vic Reiner
- California State University Los Angeles**  
*Master of Science* in Mathematics [Concurrent enrollment after joining UMN] May 2021
- University of Arizona**  
*Bachelor of Science* in Mathematics May 2009

## RESEARCH INTERESTS

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Algebra, Combinatorics and Representation Theory.

## PAPERS-PREPRINTS

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- **Sandpile Groups for Cones Over Trees** [Arxiv:2402.15453](https://arxiv.org/abs/2402.15453) [accepted]  
*with Vic Reiner*
- **On the Lucky Statistic and Displacement of Stirling Permutations**  
[Journal of Integer Sequences, Vol. 27 \(2024\), Article 24.6.7](https://doi.org/10.1080/00036817.2024.2311183)  
*with Laura Colmenarejo, Aleyah Dawkins, Jennifer Elder, Pamela E. Harris, Kimberly J. Harry, Selvi Kara, Bridget Eileen Tenner.*
- **Arithmetical Structures on Coconut Trees** [ArXiv:2406.11183](https://arxiv.org/abs/2406.11183) [submitted]  
*with Alexander Diaz-Lopez, Brian Ha, Pamela E. Harris, Jonathan Rogers, Theo Koss.*

## TEACHING EXPERIENCE

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- University of Minnesota Twin Cities** Fall 2019 - Present  
*Instructor*  
Minneapolis, MN
- MATH 1031: Precalculus [Spring 2020]  
MATH 2263: Multivariable Calculus [Fall 2022, Spring 2023]  
MATH 1272: Calculus II (Online) [Fall 2023, Spring 2024]
- Teaching Assistant*  
MATH 1151 Precalculus II [Fall 2019]  
MATH 1272 Calculus II [Fall 2020, Spring 2021]  
MATH 1051: College Algebra [Fall 2021]  
MATH 1271: Calculus I [Spring 2022]
- Grader*  
MATH 2263: Multivariable Calculus [Fall 2019]  
MATH 8201: Grad Algebra I [Fall 2021, Fall 2022]  
MATH 8202: Grad Algebra II [Spring 2022]
- Curriculum Development Assistant*  
MATH 1051: Precalculus I [Summer 2021]  
MATH 1271: Calculus I [Summer 2021]

<b>Augustana College</b>	Fall 2024 - Present
<i>Instructor</i>	<i>Rock Island, IL</i>
Math 160: Calculus I [Fall 2024]	
Math 150: History of Math [Winter 2025]	
Math 140: Precalculus [Spring 2025]	
<b>University of Wisconsin Milwaukee</b>	Fall 2023
<i>Instructor</i>	<i>Milwaukee, WI</i>
MATH 115: Precalculus [Fall 2023]	
<b>California State University Los Angeles</b>	Spring 2019
<i>Instructor</i>	<i>Los Angeles, CA</i>
MATH 1083: Precalculus [Spring 2019]	

## TALKS / PRESENTATIONS

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<i>Invited Talk: Sandpile Groups of Cones Over Trees</i>	November 2024
USC Combinatorics Seminar - Los Angeles, CA	
<i>Invited Talk: Arithmetical Structures on Coconut Trees</i>	October 2024
AMS Fall Western Sectional Meeting hosted by University of California Riverside - Riverside, CA	
<i>Invited Talk: Stirling Permutations and the Lucky Statistic</i>	September 2024
AMS Fall Central Sectional Meeting hosted by University of Texas, San Antonio - San Antonio, TX	
<i>Invited Talk: Sandpile Groups of Cones Over Trees</i>	April 2024
AMS Spring Eastern Sectional Meeting hosted by Howard University - Washington, DC	
<i>Invited Talk: Stirling Permutations and the Lucky Statistic</i>	April 2024
AMS Spring Eastern Sectional Meeting hosted by Howard University - Washington, DC	
<i>Invited Talk: Stirling Permutations and the Lucky Statistic</i>	April 2024
AMS Spring Central Sectional Meeting hosted by University of Wisconsin Milwaukee - Milwaukee, WI	
<i>Invited Talk: Sandpile Groups of Cones over Trees</i>	January 2024
AMS Special Session on The EDGE Program - Joint Mathematical Meetings- San Fran, CA	
<i>Invited Talk / Panelist : Our Stories</i>	November 2023
Online Undergraduate Resource Fair for the Advancement and Alliance of Marginalized Mathematicians - Online	
<i>Panelist: How to be an Effective Teaching Assistant</i>	July 2022
EDGE Summer Program for Women hosted by Oxford University - Oxford, UK	
<i>Panelist: The Graduate School Experience</i>	July 2022
Mathematical Sciences Research Institute Undergraduate Program - Berkeley, CA	
<i>Algebraic Properties of Cones over Trees</i>	April 2022
AWM Special Session on Women of Color in Combinatorics - Joint Mathematical Meetings (Virtual)	
<i>Sandpile Groups of Cones over Trees (Poster)</i>	November 2021
Blackwell-Tapia Conference [Institute for Advanced Study] - Princeton, NJ	

<i>Sandpile Groups of Cones over Trees</i> University of Minnesota Student Combinatorics and Algebra Seminar	October 2021
<i>The Radio Number of Banana Trees</i> The 27th Annual Student Symposium on Research, Scholarship, and Creative Activities [CSULA]	February 2019
<i>The AGM and Lemniscate.</i> The 4th Annual Pacific Coast Undergraduate Mathematics Conference	March 2009
<i>Dynamical Systems and Chaos</i> Arizona Undergraduate Mathematics Research Conference	February 2004

## WORKSHOPS AND SUMMER SCHOOLS ATTENDED

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Conference on Advances in Lie Theory, Representation Theory, and Combinatorics -Mathematical Sciences Research Institute - Berkeley, CA <i>A celebration of the work of Georgia M. Benkart</i>	May 2024
ISM Discovery School: Advances in Geometric Combinatorics and Representation Theory. Flow Polytopes, Gentle Algebras, and Associated Posets - University of Quebec in Montreal - Montreal, Quebec	May 2024
Conference on 100 Years of Noetherian Rings- Institute for Advanced Study- Princeton, NJ <i>A celebration of Noether's legacy with research talks from many areas of algebra</i>	June 2023
Gems of Combinatorics- American Institute of Mathematics- San Jose, CA <i>A Workshop to Work on Open Questions in Combinatorics.</i>	March 2023
Critical Issues in Mathematics Education-Mathematical Sciences Research Institute - Berkeley, CA <i>Mentoring for Equity</i>	March 2023
Spring Opportunities Workshop- Institute for Advanced Study- Princeton, NJ <i>A Workshop for Underrepresented Groups in the Mathematical Sciences</i>	January 2023
Representation Theory, Combinatorics and Geometry Winter School and Workshop <i>National University of Singapore -Singapore</i>	Dec 2022- Jan 2023
Mathematical Sciences Research Institute Summer School-Berkeley, CA <i>Random Graphs.</i>	July 2022
Graphs and Groups, Geometries and GAP Summer School and Conference, Online <i>Introduction to vertex algebras and vertex operator algebras</i>	July 2021
Program for Women in Mathematics IAS/ Princeton – Online <i>Representation Theory: Categories &amp; Combinatorics.</i>	May 2021
EDGE Program for Women in Mathematics -Online <i>Enhancing Diversity in Graduate Education for Women Summer Bootcamp</i>	Summer 2020
Graphs and Groups, Representations and Relations Summer School - Novosibirsk, Russia <i>Graph Coverings and Harmonic Morphisms Between Graphs</i>	August 2018
Program for Women and Mathematics IAS/ Princeton <i>Analysis and Nonlinear PDEs</i>	May 2004

## SERVICE / OUTREACH

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Organizer, Summer Student Representation Theory Seminar	Summer 2024
Grad Student Rep, Enhancing Diversity in Graduate Education (EDGE) Information Booth JMM	2022, 2024
Grad Student Rep, UMN Recruitment Table Field of Dreams Conference	2019, 2020, 2022
Grant Reviewer, UMN Council of Graduate Students	April 2022, Feb 2024
Talk Moderator, Graduate Student Combinatorics Conference (GSCC) - Online	April 2021
Graduate Student Volunteer for Faculty Hiring Committee	Fall 2019

## SPECIAL RESEARCH PROGRAMS

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GSDO Summer Institute Research Program - UMN - Minnesota, MN <i>Algebraic Number Theory</i>	Summer 2019
NASA Direct Stem Research Assistantship- CSULA - Los Angeles, CA <i>Radio Number of Trees</i>	August 2018 - May 2019
Rice University Summer Institute of Statistics Rice University - Houston, TX <i>Cumulative Hazard Functions</i>	Summer 2005
Undergraduate Research Assistantship- Carnegie Mellon University <i>Calculus of Variations</i>	Summer 2004
Undergraduate Research Assistantship University of Arizona <i>Dynamical Systems and Chaos</i>	Spring 2004

## STUDY ABROAD

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Math in Moscow - Moscow, Russia	Spring 2005- Spring 2006
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## FELLOWSHIPS, GRANTS, AND AWARDS

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Augustana College Diversity Dissertation Fellows Program <i>To conclude dissertation \ academic research \$40,000.</i>	Academic Year 2024-25
Summer Research Assistantship (NSF Funded) <i>To conduct research with Dr. Vic Reiner \$7335.</i>	Summer 2024
AMS Graduate Student Travel Grant <i>To attend Spring AMS Sectional Meeting 2024 \$250.</i>	April 2024

AMS Graduate Student Travel Grant <i>To attend JMM 2024 \$1430.</i>	Jan 2024
UW Milwaukee Teaching Assistantship <i>To conduct research with Dr. Pamela Harris \$9839.</i>	Fall 2023
Travel Assistantship <i>To conduct research with Dr. Pamela Harris \$1560.</i>	Fall 2023
Summer Research Assistantship (NSF Funded) <i>To conduct research with Dr. Vic Reiner \$7335.</i>	Summer 2023
Dr. Sylvia T. Bozeman Predoctoral Fellowship <i>To cover academic travel expenses \$500.</i>	Fall 2022
Summer Research Assistantship (NSF Funded) <i>To conduct research with Dr. Vic Reiner \$6,835.</i>	Summer 2022
2020-21 Outstanding Teaching Award <i>Given to 3 TAs who have demonstrated exemplary teaching ability \$500.</i>	Summer 2021
Summer Research Assistantship (NSF Funded) <i>To conduct research with Dr. Vic Reiner \$4,000.</i>	Summer 2021
Grants to Advance Graduate Education (GAGE) Fellowship <i>School of Mathematics, University of Minnesota \$3,000.</i>	Summer 2020

## PROFESSIONAL MEMBERSHIPS

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American Mathematical Society

Association for Women in Mathematics

Math Alliance

National Society of Black Engineers and Scientists

Society for the Advancement of Chicanos/Hispanics and Native Americans in Science