Amelia Min Stokolosa

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Employment

Georgia Institute of Technology Aug 2025 – present
Visiting Assistant Professor, School of Mathematics

Education

University of Wisconsin - Madison Sep 2019 – August 2025
Ph.D. in Mathematics *Madison, WI*
- dissertation: Tame Algebra Estimates and Inverses of Product Kernels and Flag Kernels
- advisor: Brian Street

Boston University Sep 2014 – May 2018
B.A. in Mathematics, magna cum laude *Boston, MA*

Research Interests

My current research interests are two-fold: (1) discrete harmonic analysis and additive combinatorics, (2) quasilinear dispersive equations. Previously, my research focused on the study of multi-parameter singular integrals on graded Lie groups using tools from PDEs and Operator Algebra theory.

Publications

- A.S. *Inverses of product kernels and flag kernels on graded Lie groups*, J. Math. Anal. Appl., Volume 563, Issue 2, Part 2, 2026

Research manuscripts

- "Reasonable bounds for Restricted Polynomial Progressions in $\mathbb{F}_p^n$" - Burgin, Fragkos, Kruzel, Lacey, A.S. (2026)
- "Polynomial Ergodic Averages Along Short Intervals." - Fragkos, Mousavi, and A.S. - arXiv preprint arXiv:2608.24831 (2026).
- "Tame algebra estimates for product and flag kernels on graded Lie groups." - A.S. - arXiv:2410.11346 (2024).

Outreach

- Co-organizer for a special session titled *Special Session on New Developments in Discrete Harmonic Analysis and Applications to Other Fields* at the Southeastern AMS sectional meeting - Oct 10-11, 2026 at Kennesaw State University

Invited Talks

- **The 21st Prairie Analysis Seminar** - Nov 7-8 2025 - Kansas State University, Manhattan, KS - *Tame algebra estimates for product kernels and flag kernels on graded Lie groups*
- **Expanding Pathways in Harmonic Analysis** - April 5-6, 2025 - Washington University in St. Louis - *Tame algebra estimates for product kernels and flag kernels on graded Lie groups*
- **Joint Mathematics Meetings 2025** - January 8-11, 2025 - Seattle, WA - AMS Special Session on New Directions in Harmonic Analysis - *Inverses and tame algebra estimates for product kernels and flag kernels on graded Lie groups*
- **AMS Fall Western sectional meeting** - Oct 26-27, 2024 - University of California, Riverside, Riverside CA - *Inverses and tame algebra estimates for product kernels and flag kernels on graded Lie groups*
- **AMS Fall Central sectional meeting** - Oct 7-8 2023 - Creighton University, Omaha, NE - *Inverses of flag and product kernels on graded Lie groups*
- **Ohio River Analysis Meeting 2024** - Mar 16-17 2024 - University of Kentucky, Lexington KY - *Inverses of flag and product kernels on graded Lie groups*

Conferences and poster sessions

• **Harmonic Analysis and Differential equations - In Honor of Jill Pipher** - June 23-29 2024 - Macquarie University, Sydney, Australia - Early Career Researcher poster session
• **Madison Lectures in Harmonic Analysis (MLHA)** - May 13-17 2024 - University of Wisconsin-Madison, Madison, WI - Poster session
• **AMS Spring Central sectional meeting** - April 20-21 2024 - University of Wisconsin-Milwaukee, Milwaukee, WI
• **May Midwestern Microlocal Meeting** - May 2023 - Northwestern University
• **Harmonic Analysis and Fractal Sets (HAFS) 2023** - The Ohio State University

Workshops and summer schools

- **Dynamics in Geometric Dispersive Equations and the effects of Trapping, Scattering and weak Turbulence, III** - Nov 29-Dec 4 2024 - Hausdorff School for Advanced Studies in Mathematics, Bonn, Germany
- **Hausdorff School: "Maximal Operators and Applications"** - July 15-19 2024 - Hausdorff School for Advanced Studies in Mathematics, Bonn, Germany
- **Study guide writing workshop 2023** - August 2023 - University of Pennsylvania
- **Spring Opportunities Workshop at IAS 2023** - January 2023 - The Institute of Advanced Studies

Teaching

Instructor

Georgia Institute of Technology

- Integral Calculus - Math 1552 - Spring 2026
- Introduction to linear algebra - Math 1553 - Fall 2025
- Multivariable Calculus - Math 2551 - Fall 2026

Teaching Assistant

University of Wisconsin - Madison

- Elementary matrix and Linear algebra - Math 340 - Fall 2024
- Multivariable Calculus - Fall 2022
- Calculus II - Fall 2021 (Head TA), Summer 2021, Spring 2021, Fall 2020
- Calculus I - Spring 2020, Fall 2019
- Math Learning Center TA - Fall 2023

Capstone Teaching Award 2024-2025

Department of Mathematics, University of Wisconsin-Madison

Exceptional Teaching Award 2023

Department of Mathematics, University of Wisconsin-Madison

Other Outreach

AWM chapter co-organizer

UW Madison *Sep 2022 - Aug 2024*

Expanding Your Horizons Presenter Volunteer

STEM event for middle-schoolers *May 2023*

Graduate Peer Mentor Coordinator

UW Madison *Summer 2022 - Fall 2022*

Research Experience for Undergraduates

UW Madison *Summer 2022*

Directed Reading Program for undergraduates

UW Madison *Spring 2022, 2024, 2025*

• Thirty-three miniatures: Mathematical and Algorithmic Applications of Linear Algebra by Matoušek

• An introduction to Wavelets through Linear algebra

• Game theory : a Playful introduction

Study guide and notes

Study guide for "Trilinear smothing inequalities and a variant of the triangular Hilbert transform" by Christ, Durcik, Roos – with M. Hsu, and F. Lin (2023)

Other

citizenship: French and American.

languages: French (native), English (native), Korean (intermediate).