

# Curriculum Vitae

## Amanda Wilkens

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## Professional appointments

2024–2026 Postdoctoral Associate, Carnegie Mellon University  
2024 University of California President’s Postdoctoral Fellow, UC San Diego  
2021–2024 Research Training Group Postdoctoral Associate, University of Texas at Austin

## Education

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| PhD in Mathematics, University of Kansas             | 2021 |
| MS in Mathematics, University of Wisconsin–Milwaukee | 2013 |
| BS <i>cum laude</i> in Mathematics, Beloit College   | 2010 |

## Research interests

Ergodic and probability theory on locally compact second countable groups, the Poisson point process and applications to geometry, percolation.

## Preprints and publications

1. Vanishing uniqueness thresholds in Voronoi percolation on products, with Matteo D’Achille, Jan Grebík, Ali Khezeli, and Konstantin Recke. Preprint, arXiv:2511.23317, 2025. Submitted.
2. Poisson–Voronoi tessellations and fixed price in higher rank, with Mikołaj Frączyk and Sam Mellick. Preprint, arXiv:2307.01194, 2023. Accepted for publication in *Annals of Mathematics*.
3. Isomorphisms of Poisson systems over locally compact groups. *Annals of Probability*, 51(6): 2158–2191, 2023. DOI:10.1214/23-AOP1642
4. Equivariant thinning over a free group, with Terry Soo. *Ergodic Theory and Dynamical Systems*, 40(4): 1057–1067, 2020. DOI:10.1017/etds.2018.74
5. Finitary isomorphisms of Poisson point processes, with Terry Soo. *Annals of Probability*, 47(5): 3055–3081, 2019. DOI:10.1214/18-AOP1332
6. Reduced cozero-divisor graphs of commutative rings, with Josh Cain and Lindsey Mathewson. *International Journal of Algebra*, 5(17–20): 935–950, 2011.
7. Graphs and principal ideals of finite commutative rings, with Josh Cain and Lindsey Mathewson. *Rose–Hulman Undergraduate Mathematics Journal*, 11(2), 96–105, 2010.

## Invited talks

- 9/25 Poisson–Voronoi tessellations and fixed price in higher rank, Orbit Equivalence and Topological and Measurable Dynamics Conference, Centre International de Rencontres Mathématiques
- 8/25 **Mini-course**, Poisson–Voronoi tessellations and fixed price in higher rank (2 lectures in a 5 lecture series joint with Sam Mellick), Discrete Subgroups of Lie Groups: Dynamics, Actions, Rigidity, Summer School, Institut des Hautes Études Scientifiques
- 4/25 Poisson–Voronoi tessellations and fixed price in higher rank, University of Maryland, Logic Seminar
- 3/25 Poisson–Voronoi tessellations and fixed price in higher rank, University of Waterloo, Analysis Seminar
- 1/25 Poisson–Voronoi tessellations and fixed price in higher rank, JMM 2025, AMS Special Session on Combinatorial and Probabilistic Methods in Group Theory
- 10/24 Poisson–Voronoi tessellations and fixed price in higher rank, AMS 2024 Fall Western Sectional Meeting, Special Session on Random Walks on Groups and Dynamics of Group Actions
- 6/24 Poisson–Voronoi tessellations and fixed price in higher rank, Actions of Large Groups, Geometric Structures, and the Zimmer Program Workshop, Institut Henri Poincaré
- 6/24 Poisson–Voronoi tessellations and fixed price in higher rank, Université Paris–Saclay, Séminaire SuPerGRandMa
- 5/24 Poisson–Voronoi tessellations and fixed price in higher rank, University of California, Los Angeles, Logic Colloquium
- 3/24 The Poisson point process and an application to semisimple symmetric spaces, Rice University, Analysis Seminar
- 1/24 Poisson–Voronoi tessellations and fixed price in higher rank, Carnegie Mellon University, Mathematical Logic Seminar
- 1/24 The Poisson point process and an application to semisimple symmetric spaces, Boston College, Geometry, Topology, and Dynamics Seminar
- 10/23 Poisson–Voronoi tessellations and fixed price in higher rank, Louisiana State University, Topology Seminar (online)
- 10/23 Poisson–Voronoi tessellations and fixed price in higher rank, University of California, San Diego Group Actions Seminar
- 10/23 Poisson–Voronoi tessellations and fixed price in higher rank, Los Angeles Probability Forum
- 6/23 Poisson systems and fixed price in higher rank, Dynamics Summer School, Northwestern University
- 5/23 Poisson–Voronoi tessellations and fixed price for higher rank lattices, McGill Descriptive Dynamics and Combinatorics Seminar (online)

- 3/23 Poisson–Voronoi tessellations and the fixed price property in higher rank lattices, Texas A&M Groups and Dynamics Seminar
- 3/23 Isomorphisms of Poisson systems over locally compact groups, South Eastern Logic Symposium, University of Florida
- 7/22 Isomorphisms of Poisson systems over locally compact groups, Graduate Mini-school in Groups and Dynamics, University of Texas at Austin
- 3/22 Isomorphisms of Poisson systems over locally compact groups, Workshop on Dynamical Systems and Related Topics, University of Maryland
- 12/20 Monotone factor maps and finitary isomorphisms, University of Texas at Austin Groups and Dynamics Online Seminar
- 3/20 Finitary isomorphisms of Poisson point processes, University of California, San Diego Group Actions Seminar
- 1/19 Finitary isomorphisms of Poisson point processes, JMM 2019, Symbolic Dynamics Special Session, January 2019
- 4/17 Lighting lamps and flipping coins on free groups, Beloit College Math Colloquium

## Awards

Florence Black Graduate Teaching Award, University of Kansas 2021

## Teaching experience

### Carnegie Mellon University

Matrices and Linear Transformations (Fall 2025, Spring 2026)

Multivariate Analysis (Spring 2025, Summer 2025)

### University of Texas at Austin

Geometry of Locally Compact Groups (graduate topics course Spring 2024)

Probability I (Fall 2023)

Introduction to Stochastic Processes (Spring 2023)

Multivariable Calculus (Fall 2022)

Integral Calculus (hybrid Spring 2022)

Differential and Integral Calculus (hybrid Fall 2021)

### University of Kansas

*Instructor of Record:*

Calculus III (asynchronous online Summer 2020)

Enhanced Calculus III (Spring 2019, Fall 2019, Spring 2020)

Enhanced Calculus II (Spring 2018, Fall 2018)

Precalculus Mathematics (Spring 2016)

College Algebra online (Summer 2016)

*Teaching Assistant:*

Honors Calculus II (synchronous online Fall 2020)

Calculus II (Spring 2017, Fall 2017, synchronous online Spring 2021)

Calculus I (Fall 2016)

College Algebra (Fall 2015)

### **Milwaukee Area Technical College**

College Mathematics (Fall 2014, Spring 2015)

College Technical Mathematics I (Fall 2014)

### **University of Wisconsin–Milwaukee**

*Lecturer:*

Intermediate College Algebra (Spring 2015)

Algebraic Literacy I (Fall 2014)

Survey of Calculus and Analytic Geometry (Spring 2014)

Essentials of Algebra (Spring 2014)

*Instructor of Record:*

Intermediate Algebra online (Spring 2013)

Essentials of Algebra (Fall 2012)

*Teaching Assistant:*

Prep for College Mathematics (Fall 2013)

Survey of Calculus and Analytic Geometry (Fall 2011, Spring 2012)

## **Professional service**

### **General**

Referee for various journals

Review panelist for NSF DSM research program (2024)

Mentor, LGBT Tech PATHS program (2023)

Science Mentor, Frontiers for Young Minds Journal, Understanding Mathematics (2017–2021)

### **Carnegie Mellon University**

Organizer, Logic Reading Group (Fall 2025, Fall 2024)

Panelist, SIAM Postdoc Panel (02/2025)

### **University of Texas at Austin**

Panelist, What is math research?, Math For All in Austin Conference (2024)

Organizer, Groups and Dynamics Seminar (2022–2024)

Organizer, Summer Directed Reading Program (2022–2023)

Organizer, Graduate Mini-school in Groups and Dynamics, funded by NSF DMS-1937215 (2022)

Speaker, Mathematically modeling randomness, Sunday Morning Math Group (12/2022)

### **University of Kansas**

Vice President, Student Chapter of the Association for Women in Mathematics (2020–2021)

President, Student Chapter of the American Mathematical Society (AMS) (2018–2019)

Secretary, Student Chapter of the AMS (2017–2018)

Mentor, Student Chapter of the AMS mentoring program (2020–2021)

Mentor, Women in STEMM mentoring program (2018)

Co-founder, Qualifying exam study groups for math graduate students (2017–2019)

Organizer, Outreach event with the Katherine Johnson Scholar Sisters (2018)  
Organizer, Graduate Student Organization Seminar (2017–2018)  
Organizer, Graduate Student Combinatorics Conference, funded by NSF DMS-1700464 (2017)  
Activity leader, Math awareness month workshop for middle schoolers (2016–2019)  
Panelist, Lessons from Fall 2020 webinar, Center for Teaching Excellence (2021)

## Conferences and workshops attended

Orbit Equivalence and Topological and Measurable Dynamics Conference, Centre International de Rencontres Mathématiques, 2025

Discrete Subgroups of Lie Groups: Dynamics, Actions, Rigidity Summer School, Institut des Hautes Études Scientifiques, 2025

Joint Mathematics Meetings, Seattle, Washington, 2025

AMS Fall Western Sectional Meeting, Special Session on Random Walks on Groups and Dynamics of Group Actions, 2024

Actions of Large Groups, Geometric Structures, and the Zimmer Program Workshop, Institut Henri Poincaré, 2024

Dynamics Summer School, Northwestern University, 2023

Graduate Mini-school in Groups, Dynamics, and Probability, University of Texas at Austin, 2023

Dynamics, Rigidity and Arithmetic in Hyperbolic Geometry Workshop, ICERM, 2023

Measured Group Theory Workshop, Centre de Recherches Mathématiques, 2023

South Eastern Logic Symposium, University of Florida, 2023

Graduate Mini-school in Groups and Dynamics, University of Texas at Austin, 2022

Summer School: Graphs, Groups, Stochastic Processes, Erdős Center, Alfréd Rényi Institute of Mathematics, 2022

Ergodic Theory and its Connections: A Conference in Honor of the Legacy of Michael Boshernitzan, Rice University, 2022

Workshop on Dynamical Systems and Related Topics, University of Maryland, 2022

Expanding Dynamics: Creative Online Ventures in Dynamics Summer School, 2021

Young Mathematicians in  $C^*$ -algebras, University of Copenhagen, 2019

Joint Mathematics Meetings, Baltimore, Maryland, 2019

Houston Summer School on Dynamical Systems, University of Houston, 2018

Critical Issues in Mathematics Education: Access to Mathematics by Opening Doors for Students Currently Excluded from Mathematics, MSRI, 2018

Midwest Dynamical Systems Conference, Northwestern University, 2017

Midwest Probability Colloquium, Northwestern University, 2017

Current Trends in Dynamical Systems and the Mathematical Legacy of Rufus Bowen, University of British Columbia, 2017

Pingree Park Dynamics Workshop, University of Denver, 2017

Ergodic Theory and Operator Algebras, Texas A&M University, 2017

Graduate Student Combinatorics Conference, University of Kansas, 2017

AMS Fall Western Sectional Meeting, University of Denver, 2016

KUMUNUjr Commutative Algebra Conference, University of Nebraska Lincoln, 2016

Underrepresented Students in Topology and Algebra Research Symposium, University of California, Berkeley, 2014

Midwest Women in Mathematics Symposium, Notre Dame University, 2014

Joint Mathematics Meetings, New Orleans, Louisiana, 2011

Indiana Undergraduate Research Conference, Indiana University Bloomington, 2010

Women and Mathematics Program, Institute for Advanced Study, 2010