Curriculum Vitae

Amanda Wilkens

Department of Mathematics
The University of Texas at Austin
2515 Speedway, PMA 8.100
Austin, Texas 78712

amanda.wilkens@math.utexas.edu
web.ma.utexas.edu/users/amandawilkens

Professional appointments

2021–2024   Research Training Group Postdoctoral Associate, University of Texas at Austin

Education

PhD in Mathematics, University of Kansas, 2021
        Dissertation: Bernoulli shift and Poisson system factor map constructions, passed with honors
        Advisors: Terry Soo and David Nualart
MS in Mathematics, University of Wisconsin–Milwaukee, 2013
BS *cum laude* in Mathematics, Beloit College, 2010

Research Interests

Ergodic and probability theory on locally compact second countable (lcsc) groups, map construction between measure preserving dynamical systems, the Poisson point process and its applications to the geometry of lcsc groups.

Preprints and publications

1. Poisson–Voronoi tessellations and fixed price in higher rank, with Mikołaj Frączyk and Sam Mellick. Submitted. arXiv:2307.01194

2. Isomorphisms of Poisson systems over locally compact groups. *Annals of Probability*, 51(6):2158-2191, 2023. DOI:10.1214/23-AOP1642

3. 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

4. Finitary isomorphisms of Poisson point processes, with Terry Soo. *Annals of Probability*, 47(5):3055-3081, 2019. DOI:10.1214/18-AOP1332

5. Reduced cozero-divisor graphs of commutative rings, with Josh Cain and Lindsey Mathewson. *International Journal of Algebra*, 5(17-20):935-950, 2011.

6. 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

10/2023   Poisson–Voronoi tessellations and fixed price in higher rank, Louisiana State University, Topology Seminar (online)
10/2023   Poisson–Voronoi tessellations and fixed price in higher rank, University of California, San Diego Group Actions Seminar
10/2023   Poisson–Voronoi tessellations and fixed price in higher rank, Los Angeles Probability Forum
06/2023   Poisson systems and fixed price in higher rank, Dynamics Summer School, Northwestern University

05/2023	Poisson–Voronoi tessellations and fixed price for higher rank lattices, McGill Descriptive Dynamics and Combinatorics Seminar (online)
03/2023	Poisson–Voronoi tessellations and the fixed price property in higher rank lattices, Texas A&M Groups and Dynamics Seminar
03/2023	Isomorphisms of Poisson systems over locally compact groups, South Eastern Logic Symposium, University of Florida
07/2022	Isomorphisms of Poisson systems over locally compact groups, Graduate Mini-school in Groups and Dynamics, University of Texas at Austin
03/2022	Isomorphisms of Poisson systems over locally compact groups, Workshop on Dynamical Systems and Related Topics, University of Maryland
12/2020	Monotone factor maps and finitary isomorphisms, University of Texas at Austin Groups and Dynamics Online Seminar
03/2020	Finitary isomorphisms of Poisson point processes, University of California, San Diego Group Actions Seminar
01/2019	Finitary isomorphisms of Poisson point processes, Joint Math Meetings, Symbolic Dynamics Special Session
04/2017	Lighting lamps and flipping coins on free groups, Beloit College Math Colloquium
10/2016	Equivariant thinning over a free group, A Celebration of Mathematics at the University of Wisconsin–Milwaukee, Topology Research Group Special Session

Contributed and departmental talks

09/2023	Poisson–Voronoi tessellations and fixed price in higher rank, University of Texas at Austin Groups and Dynamics Seminar
03/2023	Higher rank semisimple Lie groups have fixed price, University of Texas at Austin Junior Groups and Dynamics Seminar
09/2022	Constructions between infinite entropy systems, University of Texas at Austin Junior Groups and Dynamics Seminar
11/2021	Isomorphisms of Poisson systems on some locally compact Polish groups, University of Texas at Austin Groups and Dynamics Online Seminar
07/2017	Finitary isomorphisms of Poisson point processes, Pingree Park Dynamics Workshop
2017	Equivariant thinning over a free group, University of Kansas Probability Seminar
2016	Equivariant thinning over a free group, University of Kansas Graduate Student Seminar
2016	A geometric and algebraic investigation of the lamplighter group, University of Kansas Graduate Student Seminar
2013	Growth series of generalized lamplighter groups, University of Wisconsin–Milwaukee Topology Seminar

Awards

2021	Florence Black Graduate Teaching Award, University of Kansas

Teaching Experience

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 and Material Design:
    Calculus III (asynchronous online Summer 2020)
    Enhanced Calculus III (Spring 2019, Fall 2019, Spring 2020)
    Enhanced Calculus II (Spring 2018, Fall 2018)
Instructor of Record:
    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/Essentials of Algebra/Intermediate Algebra hybrid (Fall 2013)
    Survey of Calculus and Analytic Geometry (Fall 2011, Spring 2012)

Professional Service

University of Texas at Austin

Organizing:
    Groups and Dynamics Seminar (Fall 2023)
    Groups and Dynamics Seminar, mini-series on Factors of IID (Spring 2022)
    Summer Directed Reading Program (2022–2023)
    Graduate Mini-school in Groups and Dynamics, funded by NSF Grant DMS-1937215 (2022)
Talks:
    Mathematically modeling randomness, Sunday Morning Math Group (12/2022)

University of Kansas

Leadership Roles:
    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)
Organizing:
    Diversity training for graduate students (2019)
    Professional development seminars led by Department of Mathematics faculty (2018–2019)
    Outreach event with the Katherine Johnson Scholar Sisters, a middle school group (2018)

Qualifying exam study groups for math graduate students, *co-founder* (2017–2019)
Graduate student panels for prospective students (2017–2019)
Graduate Student Organization Seminar, about 8 occurrences per semester (2017–2018)
Graduate Student Combinatorics Conference, partially funded by NSF Grant DMS-1700464 (2017)
Mentoring:
Graduate mentor, Student Chapter of the AMS mentoring program (2020–2021)
Undergraduate mentor, Women in STEMM mentoring program (2018)
Other:
Panelist, Lessons from Fall 2020 webinar, Center for Teaching Excellence (2021)
Activity leader, Math awareness month workshop for middle schoolers (2016–2019)

General

Mentor, LGBT Tech PATHS program (2023)
Science Mentor, Frontiers for Young Minds Journal, Understanding Mathematics section (2017–2021)

Conferences and Workshops Attended

2023	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
2022	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
2021	Spectra LGBTQ+ in Mathematics Virtual Conference, ICERM
2021	Expanding Dynamics: Creative Online Ventures in Dynamics Summer School
2020	Graduate Teaching Assistant Flex and Online Teaching Program, Center for Teaching Excellence, University of Kansas
2019	Young Mathematicians in C*-algebras, University of Copenhagen
2019	Joint Mathematics Meetings, Baltimore, Maryland
2018	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
2017	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
2016	AMS Fall Western Sectional Meeting, University of Denver
2016	KUMUNUjr Commutative Algebra Conference, University of Nebraska Lincoln
2014	Underrepresented Students in Topology and Algebra Research Symposium, University of California, Berkeley
2014	Midwest Women in Mathematics Symposium, Notre Dame University
2011	Joint Mathematics Meetings, New Orleans, Louisiana
2010	Indiana Undergraduate Research Conference, Indiana University Bloomington
2010	Women and Mathematics Program, Institute for Advanced Study