Samantha Pilgrim
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Research Interests

Mathematics (Operator algebras, geometric group theory, topological dynamics)

Education

Bachelor of Science in mathematics, June 2017 – Indiana University
M.S. in mathematics, June 2020 – University of Hawai`i at Mānoa
PhD in mathematics, December 2022 – University of Hawai`i at Mānoa

Appointments

Graduate Assistant, Fall 2018 to December 2022 – UH Mānoa
Research Assistant, January 2023-present – University of Glasgow

Teaching Experience

Instructor of record – University of Glasgow
        Operator Algebras (Fall 2023)
Instructor of record -- UH Mānoa
        Precalculus (Spring 2022)
        Calculus II (Spring 2020)
        Calculus I (Summer 2018, Fall 2021)
Teaching assistant -- UH Mānoa
        Mathematics for elementary school teachers (Spring 2021)
        Calculus for the life sciences (Fall 2019, Fall 2022)
        Calculus I and II (Spring 2018, Spring 2019, Fall 2020, Spring 2020)
Prepared other graduate students for qualifying exams (Summer 2020)
Tutor for Indiana University (2014-17)

Service Experience

Referee for Mathematische Zeitschrift and Taiwanese Journal of Mathematics (2024, 2023)
Organizer for YMC^*A conference 2024 – University of Glasgow (2023)
Organizer for analysis seminar – University of Glasgow (2023, 2024)
AMS graduate student chapter -- UH Mānoa
        President (2021-22 academic year)
        Secretary (2020-21 academic year)
        Planned social events for graduate students
        Helped organize math and science activities for elementary school students
Graduate student representative on department graduate committee -- UH Mānoa (2022)
UH Manoa Directed reading program – lead organiser (2021)

Peer mentor to new graduate students (2018-2021)

Invited Talks
Invitation to speak at Structure of Dynamical C*-algebras conference in Jaca (June 2025)
Invitation to speak at geometry seminar in Birmingham (Fall 2024)
Analysis Seminar in Newcastle (March 2024)
Geometry and Topology Seminar in Bristol (February 2024)
Functional analysis seminar in Oxford (February 2024)
Coarse Geometry and Dynamics Workshop in Lyon (August 2023)
Operator Algebras Seminar in Odense (May 2023)
Operator Algebras in the South UK (March 2023)
University of Glasgow Analysis Working Seminar (Spring 2023)
East Coast Operator Algebra Symposium (October 2022)
Culminating workshop speaker -- Groundwork for Operator Algebras Lecture Series (2022)
Oberseminar in Muenster (Summer 2022)
JMM special session on advances in operator algebras (April 2022)
Culminating workshop speaker -- Groundwork for Operator Algebras Lecture Series (2021)
ARCS research symposium (2021)

Contributed Talks
UK Operator Algebras Conference in Newcastle (June 2024)
ICMS Conference in Edinburgh (Fall 2023)
Young Mathematicians in C*-algebras conference (Summer 2022)
University of Hawai'i non-commutative geometry seminar (Spring 2022)
Arizona State University C*-seminar (Fall 2021)
Young Mathematicians in C*-algebras conference (Summer 2021)
UH Mānoa AMS graduate seminar talk (Spring 2021)

Awards
2021 Sara Ann Martin ARCS award in Mathematics

References
Rufus Willett (PhD advisor), University of Hawai`i, +1 (808) 956-4666, rufus@math.hawaii.edu
Xin Li (current mentor), University of Glasgow, +44 (0)141 330 2940, xin.li@glasgow.ac.uk
Stuart White (collaborator), University of Oxford, +44 1865 615353, stuart.white@maths.ox.ac.uk
David Hume (collaborator), University of Birmingham, +44 (0)121 414 6594, d.hume@bham.ac.uk
Mirjana Jovovic (for teaching), University of Hawai`i, +1 (808) 956-4663, jovovic@math.hawaii.edu

Publications

Samantha Pilgrim. *Isometric Actions and Finite Approximations.* Ergodic Theory and Dynamical Systems. 2023

Samantha Pilgrim. *Isometric Actions are Quasidiagonal.* Rocky Mountain Journal of Mathematics. 2024

Samantha Pilgrim. *A Hurewicz-type Theorem for the Dynamic Asymptotic Dimension with Applications to Coarse Geometry and Dynamics*. Under review by Journal of the London Mathematical Society.

Samantha Pilgrim. *Topological Rigidity of the Dynamic Asymptotic Dimension.* Revised for Groups, Geometry, and Dynamics. 2024