

JOHN M. WEEKS

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ACADEMIC APPOINTMENTS

Texas A&M University, Department of Mathematics

College Station, TX

Graduate Teaching Assistant Director

2024-

- Oversee hiring assignments and teaching-related mentoring for over 150 Master's and Ph.D. students

Instructional Assistant Professor

2022-

Instructor of Record

2020, 2019

Graduate Teaching Assistant

2017-2022

EDUCATIONAL HISTORY

Texas A&M University

College Station, TX

Ph.D. in Mathematics

2017-2022

- Committee: Eric Rowell, Michael Brannan (U. Waterloo), Kenneth Dykema, Kenneth Easwaran
- Thesis: "Property of Rapid Decay and Free Wreath Products"

Lee University

Cleveland, TN

B.S. in Mathematics

2013-2017

- Major GPA 4.0, Summa Cum Laude

RECENT CLASSES TAUGHT

Hullabaloo U, Fall 2024

- University orientation course for first-year A&M math majors

Introduction to Classical Analysis (online asynchronous), Summer 2024

Linear Algebra for Engineering, Spring 2025 & Spring 2024

Transition to Graduate Mathematics (online asynchronous), Fall 2024 & Fall 2023

- Elevates student understanding of advanced and several-variable calculus, linear algebra, and differential equations to prepare for graduate coursework

Advanced Calculus, Summer 2023

- Created reading curriculum in online annotation platform Perusall

Engineering Mathematics III (Calculus III), Summer 2023 & Spring 2023

Mathematics for Business and Social Science (online asynchronous), Fall 2023 & Fall 2022

- Created original online curriculum

Business Calculus, Spring and Fall 2020

- Created video curriculum to supplement at-home student learning
- Partially taught online synchronous

SERVICE & OUTREACH

Texas A&M Mathematics & Statistics Fair

Director

2024-

- Featured in *Spirit Magazine* Winter 2025 issue
- Work with faculty and student volunteers to create and host activities for all school-grade students on A&M campus
- Advertise to students locally and in nearby municipalities - over 150 families attend on average each year
- Recruit students from local schools (Rock Prairie Elementary, River Bend Elementary, College Station High School, Allen Academy) by bringing interactive activities to their classroom

Aggie Honor System Office

Honor Council Member

2022-

- Served as panel member and/or investigator for student rule violation cases

Texas A&M Math Learning Center

Hands-On, Grades-Up Program Designer

2023-2024

- Designed an interactive learning program to supplement mathematics service courses
- Created inquiry-based content and manage student tutors
- Had regular voluntary attendance of ~200 students

Texas A&M Math Circle

Co-Director

2022-2024

- Gave several public lectures on interactive inquiry-based activities for 5-12 grade gifted/talented students
- Created and designed activities for other instructors
- Coordinated faculty and student volunteers
- Maintained online presence and coordinate with hybrid online sessions
- Recruited at local schools and at local job fairs

Organizer

2018-2019

- Designed topology mini-curriculum for 9-12 students

American Mathematical Society Graduate Student Chapter (Texas A&M)

President

2020-2021

- Cofounded Texas A&M Diversity Committee (with colleague Elise Walker)
- Co-organized 2020 and 2021 GIG'EM department conferences

Journal of the Institute of Mathematics of Jussieu

December 2020

Referee

Department Committee Work

Outreach Committee

2023-

- Co-chair since Fall 2024

Communications and Fundraising Committee

2024-

RECENT CONFERENCE PRESENTATIONS

MAA MathFest

The Never-Ending War - A Math Circle Activity (w/ M. King, P. Yasskin) August 2024

The Math and Stat Fair: The Thrill of Discovery for Younger K-12 Students (w/ S. Crawford, P. Alonso Ruiz, P. Kuchment, S. Sengupta, P. Yasskin) August 2024

Lights Out! - A Math Circle Activity (w/ K. Murphy, P. Yasskin) August 2023

Canadian Operator Symposium

Property RD for Free Wreath Products with the Quantum Automorphism Group June 2021

PUBLICATIONS

Forthcoming. Brannan, M.; Gao, L.; and Weeks, J. "Property RD and Free Wreath Products."

Forthcoming. Gao, L.; and Weeks, J. "The Furstenberg Boundary of the Quantum Automorphism Group."

2017 December. Johnson, P.; and Weeks, J. "On the Secure-Domination Number of the Full Balanced Binary Tree with 2^n Leafs." *International Journal of Mathematics and Computer Science*, 11.2 (2017).

FIELDS OF INTEREST

Quantum Information Theory

Operator Algebras

Quantum Groups

Topological Groups

Outreach to K-12 Students and Teachers

RESEARCH EXPERIENCE

University of Waterloo

September 2021-October 2021, May 2022-June 2022

Visitor

Waterloo, ON

- Networked with University of Waterloo pure mathematics department; worked with Michael Brannan, Priyanga Ganesan on quantum groups and quantum graphs research

Oak Ridge National Laboratory

May 2017-August 2017

Recent B.S. Intern

Oak Ridge, TN

- Worked with Dr. Clayton Webster on problems in sparse information in image processing

ACADEMIC ACHIEVEMENTS

Outstanding TA Award

April 2021

- Awarded to a graduate student for showing a notable effort in their TA positions at Texas A&M

Outstanding Service Award

April 2019

- Awarded as a Math Circle organizer for the 2018-2019 academic year

MEMBERSHIPS

Mathematical Association of America

Project NExT Fellow Blue '24 Cohort

2024-

- National fellowship for networking between new faculty in university mathematics

Member

2023-

GRADUATE STUDENTS MENTORING

Served as Primary Advisor

- Jeffrey Leskiw (current, co-chair with O. Shatalov)
- Taylor Schofield (current, co-chair with V. Nekrashevych)
- Hunter Shepard (current, co-chair with O. Shatalov)
- Nicolas Towers (current, co-chair with O. Shatalov)
- Sarah Vastani (current, co-chair with M. Tran)

Served as Committee Member

- Rachel Bevan (current, chair J. White)
- Adam Dajani (current, chair G. Petrova)

RECENT WORKSHOPS ATTENDED

Designing Professional Development Programs for Graduate Teaching Assistants, OPENMath MAA - July 2024 and ongoing

G.P.S.: Guided Pathways to Success for Academic Professional Track Faculty Planning Your Journey, Texas A&M University - May 2023

Workshop in Classification in von Neumann Algebras, Banff International Research Station - October-November 2019

RECENT CONFERENCES ATTENDED

Joint Mathematics Meetings, January 8-11, 2025, Seattle Convention Center

MathFest, August 7-10, 2024, JW Marriott Indianapolis

MathFest, August 2-5, 2023, Tampa Convention Center

Brazos Analysis Seminar, April 1-2, 2023, Texas A&M University

Canadian Operator Symposium, May 30-June 3, 2022, University of Ottawa

Canadian Operator Symposium, May 31-June 4, 2021, Online via Zoom

Brazos Analysis Seminar, November 7-8, 2020, Texas A&M University (hybrid)

QLA Meets QIT, November 14-16, 2019, Purdue University

Brazos Analysis Seminar, November 9-10, 2019, Baylor University

ICMAT Thematic Research in Operator Algebras and Quantum Information, May 5-17, 2019, Universidad Automata de Madrid

Brazos Analysis Seminar, March 30-31, 2019, University of Houston