CURRICULUM VITAE

Damon M. Hay

Address:
Sam Houston State University
Department of Mathematics & Statistics
[redacted]

Education:

Ph.D. Mathematics, University of Houston, 2006.

Advisor: Dr. David P. Blecher.

Dissertation: *Noncommutative Topology and Peak Interpolation for Operator Algebras.*

M.S. Mathematics, University of Houston, 2004.

B.S. Mathematics, University of Texas, 1996.

Field of Research: Functional analysis, operator spaces, and operator algebras.

Professional Experience:

Department Chair, August 2023 - present, Department of Mathematics & Statistics, Sam Houston State University.

Associate Professor, August 2014 - present, Department of Mathematics & Statistics, Sam Houston State University.

Assistant Professor, August 2011 - July 2014, Department of Mathematics & Statistics, Sam Houston State University.

Visiting Assistant Professor, August 2010 - July 2011, Department of Mathematics & Statistics, Sam Houston State University.

Assistant Professor, August 2006 - July 2011, Department of Mathematics & Statisitcs University of North Florida.

Lecturer, August 2005 - May 2006, University of Houston.

Teaching Fellow, August 2000 - May 2005, University of Houston.

Secondary Mathematics Teacher, August 1997 - May 2000, Lanier Middle School, Houston, TX.

Publications:

Non-stable K-theory for Leavitt path algebras, (with M. Loving, M. Montgomery, E. Ruiz, and K. Todd), Rocky Mountain J. Math., 44:6 (2014), 1817 - 1850.

Multipliers and hereditary subalgebras of operator algebras, Studia Mathematica, 205:1 (2011), 31-40.

Non-commutative partial matrix convexity, (with J.W. Helton, A. Lim, and S. McCullough), Indiana University Mathematics Journal, 57:6 (2008), Special Issue, 2815-2842.

Hereditary subalgebras of operator algebras, (with D. Blecher and M. Neal), Journal of Operator Theory, 59:2 (2008), 333-357.

Closed projections and peak interpolation for operator algebras, Integral Equations and Operator Theory, 57 (2007), 491-512.

Complete isometries - an illustration of noncommutative functional analysis, (with D. Blecher) Proceedings of 4th Conference on Function Spaces, Contemp. Math., AMS (2003).

Complete isometries into C-Algebras*, (with D. Blecher) Preprint (2002), Math.OA/0203182.

Grants

Academic Coaching Enhancing Scholarships (ACES), Co-PI (with Brian Loft) - 2016 NSF grant proposal for NSF Scholarships in Science, Technology, Engineering, and Mathematics; $877,500. Status: Not Funded.

Guiding the Emergence of Mathematics Scholars (GEMS), Co-PI (with Brian Loft) - 2016 NSF grant proposal for REU Site; $398,000. Status: Not Funded.

Mathematical Talks:

Noncommutative Analysis, Colloquium, Sam Houston State University, Nov. 13, 2013.

Multipliers and hereditary subalgebras of operator algebras, Analysis Seminar, Texas A&M University, April 13, 2012.

Multipliers and hereditary subalgebras of operator algebras, Analysis Seminar, University of Houston, Sept. 26, 2011.

Multipliers and hereditary subalgebras of operator algebras, Greater Plains Operator Theory Symposium, June, 2011.

Multipliers and hereditary subalgebras of operator algebras, AMS Contributed Paper Session - Operator Theory, January 9, 2011.

The Stone-Čech compactification and operator algebras, Colloquium, Sam Houston State University, Nov. 3, 2010. Jan. 22, 2007.

Noncommutative peak phenomena, Seminar in operator theory and operator algebras, University of Virginia, Nov. 11, 2008.

Noncommutative polynomials and convexity I, II and III, Seminar, University of North Florida, Oct. 5, 12 and 19, 2007.

Matrix Convexity I and II, Analysis Seminar, University of Florida, Feb. 6 and 20, 2007.

An ideal situation: closed sets, approximate identities, and operator algebras, Colloquium, University of Florida, Jan. 22, 2007.

Urysohn's lemma, ideals, and peak interpolation for operator algebras, Southeastern Analysis Meeting, University of Florida, Spring 2006.

Noncommutative topology, Analysis Seminar, University of Houston, Nov. 11, 2005.

Noncommutative peak sets and Glicksberg's theorem, Workshop in Linear Analysis and Probability, Texas A&M University, July 28, 2005.

A noncommutative Banach-Stone theorem, Graduate Seminar, University of Houston, March 28, 2003.

Graduate Work Directed:

Petero Kwizera, M.S., August 2010, Thesis: *Matrix Singular Value Decomposition*, University of North Florida.

T. Ryan Johnson, M.S., 2014, Thesis: *The Mathematics of Optimal Commodity Taxation*, Sam Houston State University.

Service:

Fall 2021-Summer 2022, Chair of SHSU Faculty Senate

Fall 2020-Summer 2021, Chair-Elect of SHSU Faculty Senate

Fall 2017 - Summer 2023, Chair, Department Policy Committee

Refereed for several journals, e.g. American Mathematical Monthly, Journal of Operator Theory, Mathematische Nachrichten, Houston Journal of Mathematics, Journal of Mathematical Analysis and Applications.

Written many Math Reviews for MathSciNet.

SHSU Faculty Senate - COSET Senator, Fall 2018 - Summer 2023

SHSU Colloquium organizer, Fall 2016 - Spring 2020.

Fall 2015-Spring 2022, Faculty Advisor, AMS Student Chapter at SHSU.

Fall 2015-Present, Faculty Advisor, SHSU eSports.

Undergraduate Advisor, Fall 2014 - Summer 2023

Fall 2014-Spring 2015, departmental committee member, Search Committee.

Spring 2015, Ph.D. thesis committee member for Tristan Whalen (Advisor: Mark Tomforde), University of Houston.

Fall 2014 - Spring 2015, departmental committee member, Mathematics Search Committee

Spring 2014, departmental committee member, FES Committee

Fall 2013, Colloquium co-organizer.

Spring 2013, Ph.D. thesis committee member for Maureen Royce (Advisor: David Blecher), University of Houston.

2011-Present, departmental committee member, Graduate Committee.

2011-Present, departmental committee member, Curriculum Committee.

Spring 2012, departmental committee member, Textbook Committee for Calculus sequence, Spring 2012.

2011-2012, departmental committee member, Search Committee.

Spring 2011, departmental committee member, Textbook Committee for MATH 1332.

2009-2010, departmental committee member, Statistics Search Committee, University of North Florida.

2008-2010, departmental committee chairperson, General Education Committee, University of North Florida.

2007-2010, departmental committee member, Graduate Committee, University of North Florida.

2007-2009, university committee member, Honors Council, University of North Florida.

2007-2008, departmental committee member, Mathematics Search Committee, University of North Florida.

2006-2008, departmental committee member, General Education Committee, University of North Florida.

2006-2007, departmental committee member, Travel Policy Committee, University of North Florida.

Fall 2004, organizer of Graduate Student Seminar, University of Houston.

Community:

Fall 2013, Advisor for 'Spatial Math' education program, Texas Seaport Museum, Galveston, Texas.

Spring 2008, Co-coordinator and instructor for a series of workshops for elementary teachers of the Diocese of St. Augustine.

Summer 2005, *G.E. Summer Math Program* instructor (coordinated by the University of Houston Mathematics Department and select Houston area public schools).

Professional Certifications:

Passing candidate - Society of Actuaries/Casualty Actuarial Society Exam P/1 (Probability), January 2010.

State of Texas Secondary Mathematics Teacher Certification, May 1998.

Additional Training:

2001 IMA PI Summer Program for Graduate Students on *Poisson and Quantum Structures*, University of Cincinnati, June 18-July 13, 2001.

Clay Mathematics Institute Spring School on Noncommutative Geometry, Vanderbilt University, May 2003.

Languages:

English (native).

Spanish (limited working proficiency).

Professional Memberships:

American Mathematical Society.