

Vita

Matthew P. Neal

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Education

- Doctor of Philosophy, Mathematics, University of Virginia, January 1999 supervised by Dr. Kevin McCrimmon
- Studied under Dr. Martin Edwards at Queens College, University of Oxford, England, April 1998-August 1998
- Bachelor of Arts, Mathematics, Cum Laude, University of Virginia, May 1994
- Bachelor of Arts, History, University of Virginia, May 1994
- Phi Beta Kappa, May 1994

Teaching Experience

- Assistant Professor, Denison University, Fall 2001- Present
Calculus I for majors (7 times), Calculus I for non majors (3 times), Calculus II (5 times), Calculus III, Vector Calculus (twice), Fourier Analysis (3 times), Applied Math, Linear algebra (4 times), Introduction to Proofs (twice) Abstract algebra (twice), Advanced Analysis I, Advanced Analysis II, introductory Statistics, Intermediate Statistics, Advanced Statistics, Differential Equations (3 times), Probability, Mathematical Analysis in Sports, Mathematical Modeling
- Visiting Assistant Professor, University of California, Irvine, Fall 1999-Spring 2001
Statistics (2 times), Calculus II (2 times), Differential Equations (2 times), Precalculus (3 times), Linear Algebra
- Instructor and graduate instructor, University of Virginia, Fall 1994-Spring 1999
10 courses, 6 recitations. Calculus I, Calculus II, Calculus III, Non-Majors Statistics, Non-Majors Probability, Abstract Algebra

Research Grants/Awards

- NSF grant # 0101153 June 2001 to June 2003
- Bartlett pre-tenure leave fellow, Denison University, 2005
- C. Goode Faculty Fellowship 2007-2008

Professional Service

- Reviewer for American Mathematical Society

Publications

- A holomorphic characterization of operator algebras (2012) Submitted
- Metric linear characterizations of operator algebra structures (2012). Submitted
- Open Projections in Operator Algebras II: Compact Projections (2011). Submitted
- Open Projections in Operator Algebras I: Comparison Theory (2011). Submitted

- Metric characterizations of isometries and of unital operator spaces and systems (with D. Blecher). Proc. Amer. Math. Soc. **139** (2011), 985-998.
- Existence of contractive projections on preduals of JBW*-triples (with B. Russo) Israeli Journal of Mathematics **182** (2011), 293-331
- Hereditary subalgebras of operator algebras (with D. Blecher and D. May) in J. of Operator Theory **59:2** (2008), 333-357
- Open partial isometries and positivity in operator spaces (with D. Blecher) in Studia Math **182** (2007), 227-262. (accepted July 2007)
- Ordered involutive operator spaces (with D. P. Blecher, K. Kirkpatrick, and W. Werner) in Positivity **11** (2007), 497-510. (accepted April 2007)
- Classification of contractively complemented Hilbertian operator spaces (with B. Russo and E. Ricard), J. Funct. Anal. **237** 589-616 (2006)
- Representation of contractively complemented Hilbertian operator spaces on the Fock space (with B. Russo), Proc. Amer. Math. Soc. **134**, No. 2, 475-485 (2005)
- State spaces of JB*-triples (with B. Russo), Math. Ann. **328**, 585-624, (2004)
- Normal contractive projections preserve type (with C.H. Chu and B. Russo) J. Operator Theory **51**, 281-301, (2004)
- Contractive projections and operator spaces (with B. Russo), Trans. Amer. Math. Soc., Vol. 355, No.6, p. 2223-2262, (2003)
- Operator space characterizations of C*-algebras and ternary rings (with B. Russo), Pac. J. Math., Vol. 209, No. 2, (2003).
- Spectrum preserving maps on JBW*-triples, Archiv der Math., **79**, p.258-267, (2002)
- Projecteurs contractifs et espaces d'opérateurs, (with B. Russo) C. R. Acad. Sci. Paris, t. 331, Serie I, p. 873-878, (2000)
- Inner ideals and facial structure of the quasi-state space of a JB-algebra, J. Funct. Anal. **173** No. 2, p. 284-307, (2000)
- Ph. D. dissertation, Facial Structure in JB- algebras and their dual spaces, University of Virginia, (1999)

Research Presentations

- Invited Speaker “Metric linear and holomorphic characterizations of operator algebra structures“ American Mathematical Society/SouthAfrican Maths Society satellite conference on Abstract Analysis. University of Pretoria, South Africa, November 2011
- Invited Speaker “Metric linear and holomorphic characterizations of operator algebra structures“ American Mathematical Society/SouthAfrican Maths Society satellite conference on Abstract Analysis. University of Pretoria, South Africa, November 2011
- Invited Speaker “Geometric structure of TRO’s, operator algebras, and operator spaces” Jordan Colloquium at National Tsing Hua University, Hsinchu Taiwan, April 2010
- Invited speaker “JB*-triples in Banach space theory and operator space theory”, University of Virginia Operator Theory Seminar March 2009
- Invited speaker “JB*-triples in Banach space theory and operator space theory”, Workshop on Jordan structures in Analysis and Operator space theory, Granada, Spain, November 2008
- Speaker, “A solution to the generalized contractive projection problem ”, GPOTS, University of Cincinnati, June 2008
- Invited Speaker “A solution to the generalized contractive projection problem ”, University of Houston, April 2008

- Invited Speaker “Classification of contractively complemented Hilbertian operator spaces”, University of California at Irvine, August 2007
- Invited Speaker, “An operator space classification of contractively complemented operator spaces”, Functional Analysis Seminar, University of Houston, August 2005.
- Speaker, “An operator space classification of contractively complemented operator spaces”, Workshop on operator spaces, operator algebras, and non-commutative probability, Universite Franche-Compte, June 2005
- Invited Speaker, “Contractively complemented operator spaces and fermions”, Functional Analysis seminar, University of California at Irvine, February 2005.
- Speaker, “Representations of contractively complemented operator spaces on the Fock space”, Great Plains Operator Theory Seminar, Texas A&M, May 2004.
- Invited Speaker, “JB*-triples in operator space theory”, SUMIFRAS, Texas A&M University, August 2003.
- Speaker, “An affine operator space characterization of TROs and left ideals of C*-algebras”, Banach Algebras Conference, University of Alberta, July 2003.
- Speaker, “An affine operator space characterization of TROs and left ideals of C*-algebras”, Great Plains Operator Theory Seminar, University of Illinois, May 2003.
- Speaker, “Contractive projections, holomorphy, and facial geometry in operator space and operator algebra theory”, Wabash Miniconference, IUPUI, September 2002.
- Invited Speaker, “The role of ternary products in analysis”, Mathematics colloquium, University of Miami, OH April 2002
- Speaker, “An operator space characterization of TRO’s and C*-algebras”, Regional AMS meetings, Irvine, CA, November 2001
- Invited Speaker, “On the classification of mixed injectives”, University of Texas, Austin, July 2001
- Speaker, “An operator space characterization of TRO’s”, Great Plains Operator Theory Conference, University of New Hampshire, June 2001
- Invited Speaker, “Contractive projections in operator space theory”, special session for operator algebras, Regional AMS meetings, San Francisco, October 2000
- Invited Speaker, “Contractive projections in operator space theory”, Conference on Jordan theory at Oberwolfach, Germany, August 2000
- Speaker, “Contractive projections in operator space theory”, Great Plains Operator Theory Conference, Puerto Rico, May 2000
- Speaker, “Spectrum preserving maps on JBW*-triples”, special session for Jordan theory, AMS joint meetings, Washington, D.C. January 2000
- Invited Speaker, “Facial structure in JB-algebras”, Functional Analysis Seminar, Oxford University, July 1998

Other Presentations

- Speaker, “Ruining Baseball with Math”, Numerous times at Denison alumini events in Los Angeles (June 2004) and Cincinnati (May 2006), three times at Denison’s Alumini Reunion Weekend (June 2005, June 2006, June 2011), UERPA’s summer retreat (May 2005), and at Denison’s Tuesday lunch series (October 2003 and November 2009), Denison Mathematics and Computer Science Department Fast Talk Series (Fall 2003)
- Speaker, ”Algebranalysisology”, Kenyon College, April 2011
- Speaker, ”Noncommutative Mathematics”, Denison Scientific Association, March 2003