

CURRICULUM VITA

PAULSEN, Vern Ival

Tenure: September 1983

Graduate Faculty: September 1, 1982

Degrees:

BA, Western Michigan University, 1973

Ph.D., University of Michigan, 1977

Positions:

Instructor, University of Kansas, 1977-79

Assistant Professor, University of Houston, 1979-83

Visiting Assistant Professor, SUNY at Stony Brook, Spring 1983

Associate Professor, University of Houston, 1983-1987

Visiting Associate Professor, University of Indiana, 1985-86

Professor, University of Houston, 1987-Present

John and Rebecca Moores Professor, 1996-Present

Director of Graduate Studies, Mathematics, January, 1998-August, 2000

Faculty Development Leave, 2000-2001

Invited Participant, Quantum Information Theory Semester,

Mittag-Leffler Institute, Stockholm, Sweden,

November 1–December 15, 2010

Field: Operator Theory, Operator Algebras, Frames, and C^* -Algebras

Organizations:

American Mathematical Society

Mathematical Association of America

Awards:

Research Excellence Award (Associate Professor level)-1988

John and Rebecca Moores Professor, 1996-Present

College of Natural Sciences and Mathematics, Teaching Excellence Award, 1997

Distinguished Alumni Award-Mathematics, Western Michigan University, 2007

University of Houston Teaching Excellence Award, 2008

Professional Activities:

Invited Addresses

University of Nebraska, at Lincoln, 1978
Texas A&M, 1979
 C^* -Algebra Mini-Conference, Tulane, 1981
Great Plains Operator Theory Seminar (GPOTS), Lawrence, Kansas, 1981
AMS Annual Meeting, Denver, 1983
Adelphi University, 1983
Bard College, 1983
SUNY at Buffalo, 1983
University of Pennsylvania, 1983
GPOTS, Boulder, Colorado, 1983
Bradley University, 1985
Purdue University, 1985
Wabash Seminar, Wabash, Indiana, 1986
 C^* -Algebras and Single Operators Conference, Principal Speaker, Indiana, 1986
Canadian Mathematical Society, Winter Meeting, Ottawa, 1986
Symposium on Operator Algebras, Durham, England, 1987
University of Georgia (3 lectures), 1987
 C^* -Algebra Conference, Oberwolfach, Germany, 1987
University of Tübingen, 1987
University of Cincinnati, 1987
Wright State University, 1987
University of Pennsylvania, 1988
University of Iowa, 1988
U.S.-Japan Operator Algebras Conference, Philadelphia, 1988
Thirty-Sixth AMS Summer Research Institute, Durham, New Hampshire, 1988
Fifth Southeastern Analysis Meeting, Principal Speaker, Athens, Georgia, 1989
University of Toronto, 1989
Distinguished Visiting Professor Series, Bucknell University, 1990
Canadian Operator Theory Symposium, Principal Speaker, Dalhousie University, 1990
Rice University, 1991
Distinguished Visiting Professor Series, Bucknell University, 1991
Summer Camp for Operator Algebraists, Lecturer; Copenhagen, Denmark, 1991
Canadian operator Theory Symposium, Principal Speaker, Calgary, 1992
LMS-SERC Durham Symposium, Durham, Principal Speaker, England, 1992
250th Anniversary of the Royal Danish Academy of Sciences and Letters,
Copenhagen, Denmark, 1992
EMS St. Andrews Colloquium, 1992
University of Waterloo, 1992
Virginia Tech, 1993
Texas A&M University, 1993
AMS Regional Meeting, Manhattan, Kansas, 1994
University of New Hampshire, 1994
Quantum Groups and their connection with Quantized Functional Analysis,
Fields Institute, Waterloo, Ontario, 1995
Banach Algebras 95, Principal Speaker, Newcastle, England, 1995

Workshop on Cohomology of Operator Algebras, Principal Speaker, Newcastle, England, 1995
 GPOTS, Principal Speaker, Tempe, Arizona, 1996
 Aegean Conference on Operator Algebras and Applications, Principal Speaker, Samos, Greece, 1996
 SEAM, Principal Speaker, Gainesville, Florida, 1997
 Canadian Operator Theory Symposium, Invited Speaker, Edmonton, 1998
 GPOTS, Principal Speaker, Manhattan, Kansas, 1998
 University of Waterloo, 1998
 University of Houston-Downtown, Graduate Recruiting, 1998
 AMS Special Session, Annual Meeting, San Antonio, 1999
 Invited Speaker, Conference on Operator Spaces, University of Illinois, 1999
 University of Athens, Athens, Greece, 1999
 Visiting Scholar, Institut Henri Poincare, Centre Emile Borel, Paris, France, 2000
 East Carolina University(3 lectures), 2000
 Rice University(2 lectures), 2000
 Organizing Committee, Free Probability and Non-commutative Banach Spaces,
 Mathematical Sciences Research Institute, Berkeley, California, 2001
 Invited Speaker, ICBCAN, Newcastle, England, July, 2001
 AMS Special Session, Regional Meeting, Irvine CA, November, 2001
 Principal Speaker, SEAM, Chapel Hill, NC, March 2002
 Principal Speaker, GPOTS, Charlotte, NC, May 2002
 Invited Speaker, CIRM, Luminy, France, July 2003
 Frontiers Lecture Series, Texas A&M University, College Station, TX, March 2004.
 Principal Speaker, IWOTA, Newcastle, England, July 2004
 University of Athens, Athens, Greece, 2 lectures, May 2005
 Invited Speaker, SUMRIFAS, College Station, TX, August 2005
 Invited Special Session Speaker, AMS Annual Meeting, San Antonio, TX, January 2006
 Invited Speaker, Coarsely Quantized Redundant Representations of Signals,
 Banff International Research Station, March 2006
 Principal Speaker, GPOTS, Iowa City, Iowa, May 2006
 Principal Speaker, COTS, Calgary, Alberta, May 2006
 Trinity College, Dublin, Ireland, 3 lectures, June 2006
 Invited Speaker, Workshop on the Kadison-Singer Problem, American Institute of Mathematics,
 ARCC, Palo Alto, California, September 2006
 Invited Speaker, Operator Structures in Quantum Information Theory,
 Banff International Research Station, Banff, Alberta, February 2007
 Invited Speaker, COSY, Guelph, Ontario, June 2007
 Invited Speaker, Operator Spaces, non-commutative L_p -spaces and applications,
 CIRM, Luminy, France, June 2007
 Invited Speaker, Operator Spaces and Group Algebras,
 Banff International Research Station, Banff, Alberta, August 2007
 Principal Speaker, Virginia Operator Theory and Complex Analysis Meeting,
 Richmond, Virginia, November 2007
 Colloquium Speaker, Western Michigan University, Kalamazoo, Michigan, November 2007.
 AIM SQUARE participant, Palo Alto, California, April 2008.
 Plenary Speaker, GPOTS, Cincinnati, Ohio, June 2008.
 AIM SQUARE participant, Palo Alto, California, May 2009.
 Plenary Speaker, COSY, Regina, Saskatchewan, May 2009.
 Invited Speaker, CIRM, Luminy, France, June 2009.

Research Collaborator, Queen's University, Belfast, Ireland, June 2009.

Plenary Speaker, SEAM, Atlanta, Georgia, March 2010

AIM SQUARE participant, Palo Alto, California, May 2010

Plenary Speaker, From Banach spaces to frame theory and applications,
Norbert Weiner Center, College Park, Maryland, May 2010

Plenary Speaker, GPOTS, Denver, Colorado, June 2010

Invited Speaker, Noncommutative L_p spaces, operator spaces and applications,
Banff International Research Station, Banff, Alberta, June 2010

Invited Speaker, Multivariate operator theory,
Banff International Research Station, Banff, Alberta, August 2010

Invited Speaker, Quantum Information Theory Semester,
Institut Mittag-Leffler, Stockholm, Sweden, Fall 2010

Plenary Speaker, Operator Theory and Its Applications, Gothenburg, Sweden, April 2011

Grants & Awards:

NSF Grant to University of Kansas, "Operators and $*$ -Algebras of Operators on Hilbert Space", 1978-80, \$83,447.

NSF Grant to University of Houston, "Operators and $*$ -Algebras of Operators on Hilbert Space", 1980-82, \$14,999.

Research Initiation Grant, " C^* -Convexity and Metrical Invariants for Operators" Summer 1980 (declined), \$4,056.

NSF Grant to University of Houston, "Completely Bounded Maps Between C^* -Algebras", 1983-85, \$23,500.

NSF Grant to University of Houston, "Completely Bounded Maps on Operator Algebras", 1985-87, \$29,500.

NSF Grant to University of Houston, "Joint K -spectral Sets and Subnormal Operators", 1987-89, \$32,800.

NSF Grant to University of Houston, "Operator Algebras", with D. Blecher, 1989-1991, \$68,892.

NSF Grant, "Operator Algebras and Reproducing Kernel Hilbert Spaces" (with D. Blecher), 1991-1993, \$82,785.

NSF Grant, "Operator Algebras and Reproducing Kernel Hilbert Spaces" (with D. Blecher), 1993-1996, \$144,000.

NSF Grant, "Operator Algebras, Modules and Completely Bounded Maps" (with D. Blecher), 1997-2000, \$213,758.

NSF Grant, "Operator Algebras, Operator Spaces, Frames and Applications" (with D. Blecher and M. Papadakis), 2000-2003, \$241,470.

NSF Grant, "Operator Algebras, Interpolation and Frames", 2003-2006, \$115,000.

NSF Grant, "Frames, Interpolation and Injective Envelopes", 2006-2009, \$145,598

NSF Grant, "Collaborative Research: GPOTS 2011 & 2012", 2011-2012, \$25,000

Visiting Positions:

SUNY at Stony Brook Spring, 1983
Indiana University, Fall 1985-Spring 1986
Institut Henri Poincare, Centre Emile Borel, Paris, France, January, 2000

Editorial Boards:

Houston Journal of Mathematics, Managing Editor, 1990-1993
Houston Journal of Mathematics, Editor, 1993-Present
Positivity in Analysis, Kluwer, Editor, 1997-2009
Journal of Geometric Analysis, Associate Editor, 2009–2011
Operator Theory: Advances and Applications, Birkhauser, Associate Editor, 2010–Present
Journal of Operator Theory, Associate Editor, 2011–Present

Scholarly Review Panels:

Presidential Faculty Fellowships, NSF, 1995
Faculty Early Career Development (CAREER), NSF, 1995
Review Panel for Program in Operator Algebras, NSF, 1996,1999, 2004, 2008

Referee/Reviewer:

National Science Foundation
NSERC of Canada
National Security Agency, Mathematical Sciences Program
Houston Journal of Mathematics
Journal of Operator Theory
Mathematical Reviews
Michigan Mathematical Journal
Proceedings of the AMS
Indiana University Mathematics Journal
Journal of Functional Analysis
Transactions of the AMS
Pacific Journal of Mathematics
Quarterly Journal of Mathematics
Proceedings of the Edinburgh Mathematical Society
Iranian Journal of Science & Technology
Canadian Journal of Mathematics
Journal of Mathematical Analysis and Applications
Linear Algebra and Applications
Journal of Integral Equations and Operator Theory
Rocky Mountain Journal of Mathematics
Illinois Journal of Mathematics
Journal of the Mathematical Society of Japan
Journal of the American Mathematical Society
Mathematica Scandanavica
American Journal of Mathematics
Canadian Mathematical Bulletin
Semigroup Forum
Bulletin of the London Mathematical Society
Journal fur die Reine und Angewandte Mathematik(Crelle's Journal)

Communications in Mathematical Physics
 Studia Mathematica
 Mathematisches Annalen
 Advances in Computational Mathematics
 Proceedings of the Indian Academy of Science
 Glasgow Mathematical Journal

Theses and Dissertations Supervised:

Suen, C.Y.	“The Representation Theory of Completely Bounded Maps on C^* -Algebras”	PhD	1983
Tiballi, Terry	“Symmetric Orthogonalization of Vectors in Hilbert Space”	PhD	1991
Chu, Peter (Che-Chen)	“Finite Dimensional Representations of Function Algebras”	PhD	1992
Zhang, Shuang	“Representation and Geometry of Operator Spaces”	PhD	1995
Ferguson, Sarah	“Ext, Analytic Kernels and Operator Ranges”	PhD	1996
Khoury, Raja	”Closest Matrices in the Space of Doubly Stochastic Matrices”	PhD	1997
Solazzo, James	”Interpolation and Computability”	PhD	2000
Holmes, Roderick B.	”Optimal Frames”	PhD	2003
Kaneda, Masayoshi	”Multipliers and Algebrizations of Operator Spaces”	PhD	2003
Kalra, Deepti	”Equiangular Cyclic Frames”	PhD	2006
Abdulbaki, Soha	”Generalized Sigma-Delta Quantization”	PhD	2006
Raghupathi, Mrinal	“Constrained Nevanlinna-Pick Interpolation”	PhD	2008
Xhabli, Blerina	“Universal operator system structures on ordered spaces and their applications”	PhD	2009
Mittal, Meghna	“Function Theory on the quantum analysis and other domains”	PhD	2010
Singh, Preeti	“Applications of finite groups to Parseval frames”	PhD	2010
Lata, Sneha	“The Feichtinger conjecture and reproducing kernel Hilbert spaces”	PhD	2010
Kavruk, Ali	“Tensor Products of Operator Systems and Applications”	PhD	2011

Departmental and University Service:

Executive Committee, 1981-82,1984-85,1986-2009, 2010-2011
Graduate Studies Committee, 1980-81,1983-85,1986-90, 2000-2009
Curriculum Committee, 1981-83
Colloquium Committee, 1980-85,1986-87
Faculty Recruiting Committee, 1981-82,1983-84,1987-88,1994-95
Bourgin Scholar Committee, 1986-87(chair), 1987-88
Course Evaluation and Program Revision Committees, 1980-81,1984-86
NS&M Faculty Development Leave Committee, 1992-93
NS&M Policy Committee, 1993-94, 1994-95(chair), 2003-05
Director of Graduate Studies, January, 1998-August, 2000
Provost's Ad Hoc Committee on the Institutionally Designated Option, 1998
Chair, ARP Physical Sciences Selection Committee, 2005
Chair, Hiring Committee, 2006
Hiring Committee, 2007–Present
NS&M Dean Search Committee, 2010

Publications: *-indicates a primarily expository article.

1. "Continuous canonical forms for matrices under unitary equivalence", *Pacific Journal of Mathematics* **76** (1978), 129-142.
2. "Weak compalence invariants for essentially n -normal operators", *American Journal of Mathematics* **101** (1979), 979-1006.
3. "Two examples of non-trivial essentially n -normal operators," (with N. Salinas), *Indiana University Mathematics Journal* **28** (1979), No. 5, 711-724.
4. "A classification theorem for essentially binormal operators", (with R. McGovern and N. Salinas), *Journal of Functional Analysis* **41** (1981), 213-235.
5. "Some remarks on C^* -convexity," (with R. Leobl), *Linear Algebras and Applications* **35** (1981), 63-78.
6. "The group of invertible elements in a Banach algebra," *Colloquium Mathematicum* **47** (1982), 97-100.
7. " C^* -extreme points," (with A. Hopenwasser and R.L. Moore), *Transactions of the American Mathematical Society* **266** (1981), 291-307.
8. "A covariant version of Ext.," *Michigan Mathematical Journal*, **29** (1982), 131-142.
9. "Completely bounded maps on C^* -algebras and invariant operator ranges," *Proceedings of the American Mathematical Society* (1) **86**
10. "Preservation of essential matrix ranges by compact perturbations," *Journal of Operator Theory* **8** (1982), 297-313.
11. "Every completely polynomially bounded operator is similar to a contraction," *Journal of Functional Analysis*, **55** (1984), 1-17.
12. "Commutant representations of completely bounded maps," (with C.Y. Suen), *Journal of Operator Theory*, **13** (1985), 87-101.
13. "Completely bounded maps and hypo-Dirichlet algebras," (with R. Douglas) *Acta Mathematica*, **50** (1986), 143-157.
14. "Completely bounded homomorphism," *Proceedings of the American Mathematical Society*, **92** (1984), 225-228.
15. " K -spectral values for some finite matrices," *Journal of Operator Theory* **18** (1987), 249-263.
16. "Multilinear maps and tensor norms on operator systems," (with R. Smith), *Journal of Functional Analysis*, **73** (1987), 258-276.
17. "Universal compressions of representations of $H(G)$," (with G. Bercovici and C. Hernandez-Garciadiego), *Mathematische Annalen*, **281** (1988), 177-191.
- *18. "Toward a theory of K -Spectral sets," *Surveys of Some Recent Results in Operator Theory, Volume I*, Pitman Press, vol. 171, (1988), 221-240.

19. "Semi-discreteness and dilation theory for nest algebras," (with S. Power and J. Ward), *Journal of Functional Analysis*, **80** (1988), 76-87.
20. "Lifting theorems for nest algebras," (with S. Power), *J. Operator Theory*, **20** (1988), 311-317.
21. "Schur products and matrix completions," (with S. Power and R. Smith), *Journal of Functional Analysis*, **85** (1989), 151-178.
22. "Tensor products of nonselfadjoint operator algebras," (with S. Power), *Rocky Mountain Journal of Mathematics*, **20** (1990), 1-19.
23. "A note on joint hyponormality," (with S. McCullough), *Proceedings of the American Mathematical Society*, **107** (1989), 187-195.
24. "Operator Theory and Algebraic Geometry," (with R. Douglas and K. Yan), *Bulletin of the American Mathematical Society*, **20** (1989), 67-72.
25. "Three Tensor Norms for Operator Spaces,". Mappings of Operator Algebras: Proceedings of the 1988 Japan-US Joint Seminar in Honor of Professor Sakai, Birkhauser, Boston.
26. "Rigidity Theorems in Spaces of Analytic Functions," Proceedings of Symposia in Pure Mathematics Operator Theory/Operator Algebras and their Applications, eds. William B. Arveson and Ronald G. Douglas.
27. "Positive Completions of Matrices Over C^* -algebras," (with L. Rodman), *Journal of Operator Theory*, **25** (1991), 237-253.
28. "Tensor Products of Operator Spaces" (with D. Blecher), *Journal of Functional Analysis*, **99** (1991), 262-292.
29. "Representations of Function Algebras, Abstract Operator Spaces, and Banach Space Geometry," *Journal of Functional Analysis*, **109** (1992), 113-129.
30. "Explicit Construction of Universal Operator Algebras and Applications to Polynomial Factorization," (with D. Blecher), *Proceedings of the American Mathematical Society*, **109** (1992), 113-129.
31. "Analytic Reproducing Kernels and Multiplication Operators" (with G. Adams and P. McGuire), *Illinois Journal of Mathematics* **36** (1992), 404-419.
32. " K -hyponormality of Weighted Shifts" (with S. McCullough), *Proceedings of the American Mathematical Society*, **116** (1992), 165-169.
33. "Tree Algebras, Semidiscreteness, and Dilation Theory" (with K. Davidson and S.C. Power), *Proceedings of the LMS*, **(3)68** (1994), 178-202.
34. "Algebraic Reduction and Rigidity for Hilbert Modules" (with R.G. Douglas, C.H. Sah, and K. Yan), *American Journal of Mathematics*, **117** (1995), 75-92.
35. "On Centered and Weakly Centered Operators" (with C. Pearcy and S. Petrovic), *Journal of Functional Analysis*, **128** (1995), 87-101.
36. "Operator Ideals and Operator Spaces" (with D. B. Mathes), *Proceedings of the AMS*, **123** (1995), 1763-1772.

37. "Analytic Reproducing Kernels and Factorization" (with G. Adams, J. Froelich, and P. McGuire), *Indiana University Mathematics Journal*, **43** (1994), 839-856.
38. "Categories of Operator Modules-Morita Equivalence and Projective Modules" (with D. Blecher and P. Muhly), **Memoirs of the AMS**, **143**, Number 681, January 2000, 94 pages.
39. "The Maximal Operator Space of a Normed Space", *Proceedings of the Edinburgh Math. Soc.*(1996) **39**, 309-323.
40. "Resolutions of Hilbert Modules", *Rocky Mountain J. of Math.*, (1997) **27**, 271-297.
41. "Relative Yoneda Cohomology for Operator Spaces", *Journal Functional Anal.* **157** (1998), 358-393.
42. "Polynomially Bounded Operators" (with K. Davidson), *J. reine angew. Math.* **487**(1997),153-170.
- *43. "Relative Yoneda Cohomology for Operator Spaces—An Overview", in **Operator Algebras and Applications, NATO ASI Series**, Vol. 495, Aristides Katavolos, Editor, Kluwer Academic Publishers, 1997, 389-402.
44. "Matrix-valued Interpolation and Hyperconvex Sets", *Integral Equations and operator Theory* **41**(2001), 38-62.
45. "Operator Algebras of Idempotents", *Journal of Functional Analysis* **181**(2001), 209-226.
46. "Symmetric Approximation of Frames and Bases in Hilbert Space" (with M. Frank and T. R. Tiballi), *Transactions of the AMS* **354**(2001), 777-793.
47. "A Helson-Lowdenslager-DeBranges Theorem in L^2 " (with D. Singh), *Proceedings of the AMS* **129**(2000), 1097-1103.
48. "Injective Envelopes of C*-algebras as Operator Modules"(with M. Frank), *Pacific J. of Math.* **212**(2003), 57-69.
49. "Multipliers of Operator Spaces and the Injective Envelope"(with D. Blecher), *Pacific J. Of Math.* **200**(2001), 1-17.
50. "Characterizations of essential ideals as operator modules over C*-algebras"(with M. Kaneda), *J. Operator Theory* **49**(2003), 245-262.
51. "On Bohr's Inequality"(with G. Popescu and D. Singh), *Proc. London Math. Soc.*, (3)**85**(2002), 493-512.
52. "Schur multipliers and operator-valued Foguel-Hankel operators"(with C. Badea), *Indiana University Math. J.* **50**(2001), 1509-1522.
53. "Diagonals in tensor products of operator algebras"(with R. Smith), *Proceedings of the Edinburgh Mathematical Society* **45**(2002), 1-6.
54. "C*-envelopes and interpolation theory"(with S. McCullough), *Indiana University Math. J.* **51**(2002), 479-505.
55. "Diffusing with Stefan and Maxwell"(with N. Amundson and T.-W. Pan), *AIChE J.* **49**(2003), 813-830.

56. "Optimal Frames for Erasures"(with R.B. Holmes), *Lin. Alg. and Appl.* 377(2004), 31-51.
57. "Two reformulations of Kadison's similarity problem"(with D. Hadwin), *J. Operator Theory*, 55:1(2006), 3-16.
58. "On ranges of bimodule projections"(with A. Katavolos), *Canadian Mathematical Bulletin* 48(1), 2005, 97-111.
59. "Bohr's inequality for uniform algebras"(with D. Singh), *Proceedings of the AMS* 132(12), 2004, 3577-3579.
60. "Lie ideals in operator algebras"(with A. Hopenwasser), *J. Operator Theory* 52(2004), 325-340.
61. "Quasimultipliers of operator spaces"(with M. Kaneda), *Journal of Functional Analysis* 217(2004), 347-365.
62. "Extensions of Bohr's inequality"(with D. Singh), *Bull. London Math. Soc.* 38(2006), 991-999.
63. "Frames, Graphs and Erasures"(with B. Bodmann), *Linear Algebra and its Applications* 404(2005), 118-146.
64. "Modules over subalgebras of the disk algebra"(with D. Singh), *Indiana University Math. J.*, 55, No. 5(2006), 1751-1766.
- *65. "Loss-Insensitive Vector Encoding with Two-Uniform Frames"(with B. Bodmann), in *Wavelets XI, Proceedings of the SPIE*, vol. 5914, M. Papdakis, A. F. Laine, M. A. Unser (Eds.), pp. 591403-1-12, 2005.
66. "Frame Paths and Error Bounds for Sigma-Delta Quantization"(with B. Bodmann), *Applied and Computational Harmonic Analysis*, 22(2007), no. 2, 176-197.
67. "Equivariant Maps and Bimodule Projections", *Journal of Functional Analysis*, 240(2006), 495-507
- *68. "A Simple Proof of Bohr's Inequality"(with D. Singh), Conference Proceedings, to appear.
69. "Smooth Frame-Path Termination for Higher Order Sigma-Delta Quantization"(with B. Bodmann and S. Abdalbaki), *J. Fourier Anal. and Appl.*, Vol. 13, Issue 3(2007), 285-307.
70. "Interpolation and Balls in \mathbb{C}^k "(with J. Solazzo), *Journal of Operator Theory*, 60:2(2008), 379-398.
71. "Decoherence-insensitive quantum communication by optimal C^* -encoding"(with B. Bodmann and D. Kribs), *IEEE Trans. on Information Thy.*, Vol 53, Number 12, December 2007, 4738-4749.
72. "Injective and projective Hilbert C^* -modules"(with M. Frank), preprint.
73. "Projections and the Kadison-Singer Problem"(with P. Casazza, D. Edidin, and D. Kalra), *Matrices and Operators*, 1(2007), no. 3, 391-408.
- *74. "Three Approaches to the Kadison-Singer Problem", AIM ARCC Workshop on the Kadison-Singer Problem.

- *75. “State Extensions and the Kadison-Singer Problem”(with C. Akemann), American Institute of Mathematics, ARCC Workshop on the Kadison-Singer Problem,
<http://www.aimath.org/WWN/kadisonsinger/ARCC-ap.pdf>
- *76. “Paving and the Kadison-Singer Problem”(with P. Casazza and G. Weiss), American Institute of Mathematics, ARCC Workshop on the Kadison-Singer Problem,
<http://www.aimath.org/WWN/kadisonsinger/Pavingtext.pdf>
- *77. “A Survey of Completely Bounded Maps”, Banff International Research Station, Workshop on Operator Structures in Quantum Information Theory,
<http://birs.pims.math.ca/07w5119/Paulsen.pdf>
- 78. “A dynamical systems approach to the Kadison-Singer problem”, *Journal of Functional Analysis*, **255**(2008), 120-132.
- 79. “Some new equivalences of Anderson’s paving conjectures”(with M. Raghupathi), *Proceedings American Math. Soc.*, Volume 136, Number 12, December 2008, 4275–4282.
- 80. “Injectivity and projectivity in analysis and topology”(with D. Hadwin), *Science China Mathematics: Kadison’s Proceedings*, to appear.
- 81. “Stably Isomorphic Dual Operator Algebras”(with G.K. Eleftherakis), *Math Ann.*,(2008)341:99-112.
- 82. “Computing stabilized norms for quantum operations via the theory of completely bounded maps”(with N. Johnston and D. Kribs), *Quantum Information & Computation*, 9(2009), no. 1-2, 16-35.
- 83. “A Constrained Nevanlinna-Pick Interpolation Problem”(with K. Davidson, M. Raghupathi and D. Singh), *Indiana University Math. J.*, Vol. 58, No. 2(2009), 709–732.
- 84. “Vector spaces with an order unit”(with M. Tomforde), *Indiana University Math. J.*, 58(2009), no. 3, 1319-1359.
- 85. “Equiangular tight frames from complex Seidel matrices containing cube roots of unity”(with B. Bodmann and M. Tomforde), *Linear Algebra and Its Applications*, 430(2009), 396–417.
- 86. “Representations of logmodular algebras”(with M. Raghupathi), *Transactions Amer. Math. Soc.*, Vol. 263, Number 5, May 2011, 2627-2640.
- 87. “An operator algebra proof of Agler’s factorization theorem”(with S. Lata and M. Mittal), *Proceedings Amer. Math. Soc.*, 137(2009), no. 11, 3741-3748.
- 88. “Weak expectations and injective envelopes”, *Transactions of the Amer. Math. Soc.*, DOI: 10.1090/S0002-9947-2011-05203-7.
- 89. “Stable isomorphism of dual operator spaces”(with G. Eleftherakis and I. Todorov), *Journal of Functional Analysis*, 258(2010), 260-278.
- 90. “Operator System Structures on Ordered Spaces”(with I. Todorov and M. Tomforde), *Proceedings of the London Math. Soc.*, **102**(1)(2011), 25-49.

91. “Operator algebras of functions”(with M. Mittal), *Journal of Functional Analysis*, 258(2010), 3195-3225.
92. “Tensor products of operator systems”(with A. Kavruk, I. Todorov, and M. Tomforde), *Journal of Functional Analysis*, 261(2011), 267-299. doi: 10.1016/j.jfa.2011.03.014.
93. “Synthetic sets, paving and the Feichtinger conjecture”, *Proceedings of the Amer. Math. Soc.*, 139(2011), 1115-1120.
94. “Synthetic sets and amenability”, *Proceedings of the Amer. Math. Soc.*, to appear.
95. “Spanning and independence properties of frame partitions”(with B. Bodmann, P. Casazza, and D. Speegle), *Proceedings of the Amer. Math. Soc.*, to appear.
96. “Reproducing kernel Hilbert spaces and the Feichtinger conjecture”(with S. Lata), *Indiana U. Math. J.*, to appear.
97. “Quotients, exactness and nuclearity in the operator system category”(with A. Kavruk, I. Todorov and M. Tomforde), *Adv. in Math.*, submitted.
98. “An approximation theorem for nuclear operator systems”(with K.H. Han), *Journal of Functional Analysis*, Vol. 261, 2011, 999-1009.
99. “Minimal and Maximal Operator Spaces and Operator Systems in Entanglement Theory”(with D. Kribs, N. Johnston and R. Pereira), *Journal of Functional Analysis*, Vol. 260, Issue 8, 2011, 2407-2423.
100. “Operator system quotients of matrix algebras and their tensor products”(with D. Farenick), submitted.

Books:

Completely Bounded Maps and Dilations, Pitman Research Notes in Mathematics Vol. 146 (1986) New York.

Hilbert Modules over Function Algebras, (with R. Douglas), Pitman Research Notes in Mathematics Series, Vol. 217 (1989), Longman Scientific & Technical, Harlow, Essex, UK.

Completely Bounded Maps and Operator Algebras, Cambridge Studies in Advanced Mathematics, vol. 78(2002), Cambridge University Press.