Scott Mccullough

List of Publications by Year
in descending order

45 papers	756 citations	567281 15 h-index	552781 26 g-index
45 all docs	45 docs citations	45 times ranked	118 citing authors

#	Article	IF	Citations
1	Reinhardt free spectrahedra. Linear Algebra and Its Applications, 2022, 640, 91-117.	0.9	1
2	Convexity of a certain operator trace functional. Linear Algebra and Its Applications, 2022, 643, 218-234.	0.9	1
3	Noncommutative Partial Convexity Via $$Gamma $$-Convexity. Journal of Geometric Analysis, 2021, 31, 3137-3160.	1.0	2
4	Noncommutative Polynomials Describing Convex Sets. Foundations of Computational Mathematics, 2021, 21, 575-611.	2.5	3
5	Plurisubharmonic noncommutative rational functions. Journal of Mathematical Analysis and Applications, 2020, 492, 124421.	1.0	1
6	Bianalytic free maps between spectrahedra and spectraballs. Journal of Functional Analysis, 2020, 278, 108472.	1.4	3
7	There Are Many More Positive Maps Than Completely Positive Maps. International Mathematics Research Notices, 2019, 2019, 3313-3375.	1.0	9
8	Dilations, Linear Matrix Inequalities, the Matrix Cube Problem and Beta Distributions. Memoirs of the American Mathematical Society, 2019, 257, 0-0.	0.9	9
9	Extreme Points of Matrix Convex Sets, Free Spectrahedra, and Dilation Theory. Journal of Geometric Analysis, 2018, 28, 1373-1408.	1.0	16
10	Bianalytic maps between free spectrahedra. Mathematische Annalen, 2018, 371, 883-959.	1.4	7
11	Circular free spectrahedra. Journal of Mathematical Analysis and Applications, 2017, 445, 1047-1070.	1.0	7
12	The tracial Hahnâ€"Banach theorem, polar duals, matrix convex sets, and projections of free spectrahedra. Journal of the European Mathematical Society, 2017, 19, 1845-1897.	1.4	19
13	Non-Commutative Polynomials with Convex Level Slices. Indiana University Mathematics Journal, 2017, 66, 2071-2135.	0.9	1
14	Compact sets in the free topology. Linear Algebra and Its Applications, 2016, 506, 6-9.	0.9	20
15	The 3-Isometric Lifting Theorem. Integral Equations and Operator Theory, 2016, 84, 69-87.	0.8	8
16	Matrix convex hulls of free semialgebraic sets. Transactions of the American Mathematical Society, 2015, 368, 3105-3139.	0.9	14
17	On real one-sided ideals in a free algebra. Journal of Pure and Applied Algebra, 2014, 218, 269-284.	0.6	6
18	The matricial relaxation of a linear matrix inequality. Mathematical Programming, 2013, 138, 401-445.	2.4	56

#	Article	IF	Citations
19	A noncommutative real nullstellensatz corresponds to a noncommutative real ideal: Algorithms. Proceedings of the London Mathematical Society, 2013, 106, 1060-1086.	1.3	34
20	Chapter 8: Free Convex Algebraic Geometry. , 2012, , 341-405.		6
21	Every convex free basic semi-algebraic set has an LMI representation. Annals of Mathematics, 2012, 176, 979-1013.	4.2	79
22	The convex Positivstellensatz in a free algebra. Advances in Mathematics, 2012, 231, 516-534.	1.1	37
23	Agler-Commutant Lifting on an Annulus. Integral Equations and Operator Theory, 2012, 72, 449-482.	0.8	1
24	Convexity and Semidefinite Programming in Dimension-Free Matrix Unknowns. Profiles in Operations Research, 2012, , 377-405.	0.4	2
25	Free Analysis, Convexity and LMI Domains. , 2012, , 195-219.		10
26	Proper analytic free maps. Journal of Functional Analysis, 2011, 260, 1476-1490.	1.4	55
27	Analytic mappings between noncommutative pencil balls. Journal of Mathematical Analysis and Applications, 2011, 376, 407-428.	1.0	49
28	Non-commutative varieties with curvature having bounded signature. Illinois Journal of Mathematics, 2011, 55, .	0.1	0
29	Noncommutative ball maps. Journal of Functional Analysis, 2009, 257, 47-87.	1.4	31
30	Convex Matrix Inequalities Versus Linear Matrix Inequalities. IEEE Transactions on Automatic Control, 2009, 54, 952-964.	5.7	45
31	Non-commutative partial matrix convexity. Indiana University Mathematics Journal, 2008, 57, 2815-2842.	0.9	11
32	Interpolation in semigroupoid algebras. Journal Fur Die Reine Und Angewandte Mathematik, 2007, 2007, 1-40.	0.9	16
33	Strong majorization in a free â œ±-algebra. Mathematische Zeitschrift, 2007, 255, 579-596.	0.9	17
34	Ersatz Commutant Lifting with Test Functions. Complex Analysis and Operator Theory, 2007, 1, 581-620.	0.6	7
35	The Hessian of a noncommutative polynomial has numerous negative eigenvalues. Journal D'Analyse Mathematique, 2007, 102, 29-76.	0.8	5
36	Irreducible noncommutative defining polynomials for convex sets have degree 4 or less. Indiana University Mathematics Journal, 2007, 56, 1189-1232.	0.9	10

#	Article	IF	Citations
37	Matrix Representations for Positive Noncommutative Polynomials. Positivity, 2006, 10, 145-163.	0.7	3
38	The failure of rational dilation on a triply connected domain. Journal of the American Mathematical Society, 2005, 18, 873-918.	3.9	49
39	Convex Noncommutative Polynomials Have Degree Two or Less. SIAM Journal on Matrix Analysis and Applications, 2004, 25, 1124-1139.	1.4	27
40	Isometric representations of some quotients ofH ? of an annulus. Integral Equations and Operator Theory, 2001, 39, 335-362.	0.8	5
41	Factorization of operator-valued polynomials in several non-commuting variables. Linear Algebra and Its Applications, 2001, 326, 193-203.	0.9	57
42	Model theory for hyponormal contractions. Integral Equations and Operator Theory, 2000, 36, 182-192.	0.8	5
43	Commutant lifting on a two holed domain. Integral Equations and Operator Theory, 1999, 35, 65-84.	0.8	3
44	The trisecant identity and operator theory. Integral Equations and Operator Theory, 1996, 25, 104-127.	0.8	3
45	On the SzegÅ' kernel of an annulus. Proceedings of the American Mathematical Society, 1994, 121, 1111-1111.	0.8	6