

# John McCarthy

## List of Publications by Year in descending order

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78  
papers

2,605  
citations

304368

22  
h-index

197535

49  
g-index

82  
all docs

82  
docs citations

82  
times ranked

3117  
citing authors

#	ARTICLE	IF	CITATIONS
1	Tau and $A\beta$ imaging, CSF measures, and cognition in Alzheimer's disease. <i>Science Translational Medicine</i> , 2016, 8, 338ra66.	5.8	560
2	On the Stability of BOLD fMRI Correlations. <i>Cerebral Cortex</i> , 2017, 27, 4719-4732.	1.6	403
3	Complete Nevanlinna-Pick Kernels. <i>Journal of Functional Analysis</i> , 2000, 175, 111-124.	0.7	128
4	Nevanlinna-Pick interpolation on the bidisk. <i>Journal Fur Die Reine Und Angewandte Mathematik</i> , 1999, 1999, 191-204.	0.4	88
5	Distinguished varieties. <i>Acta Mathematica</i> , 2005, 194, 133-153.	1.4	88
6	Global Holomorphic Functions in Several Noncommuting Variables. <i>Canadian Journal of Mathematics</i> , 2015, 67, 241-285.	0.3	70
7	Operator monotone functions and Löwner functions of several variables. <i>Annals of Mathematics</i> , 2012, 176, 1783-1826.	2.1	63
8	Pick Interpolation for free holomorphic functions. <i>American Journal of Mathematics</i> , 2015, 137, 1685-1701.	0.5	53
9	Properties of an entropy-based signal receiver with an application to ultrasonic molecular imaging. <i>Journal of the Acoustical Society of America</i> , 2007, 121, 3542.	0.5	51
10	Norm preserving extensions of holomorphic functions from subvarieties of the bidisk. <i>Annals of Mathematics</i> , 2003, 157, 289-312.	2.1	46
11	A Carathéodory theorem for the bidisk via Hilbert space methods. <i>Mathematische Annalen</i> , 2012, 352, 581-624.	0.7	44
12	Enhanced Cosmetic Outcome with Running Horizontal Mattress Sutures. <i>Dermatologic Surgery</i> , 2005, 31, 1313-1316.	0.4	41
13	Partial covariance based functional connectivity computation using Ledoit-Wolf covariance regularization. <i>NeuroImage</i> , 2015, 121, 29-38.	2.1	39
14	Collagen Remodeling After 585-nm Pulsed Dye Laser Irradiation: An Ultrasonographic Analysis. <i>Dermatologic Surgery</i> , 2003, 29, 997-1000.	0.4	37
15	Subnormal Operators and Quadrature Domains. <i>Advances in Mathematics</i> , 1997, 127, 52-72.	0.5	32
16	Toral algebraic sets and function theory on polydisks. <i>Journal of Geometric Analysis</i> , 2006, 16, 551-562.	0.5	28
17	Application of Renyi entropy for ultrasonic molecular imaging. <i>Journal of the Acoustical Society of America</i> , 2009, 125, 3141-3145.	0.5	27
18	Facial behaviour of analytic functions on the bidisc. <i>Bulletin of the London Mathematical Society</i> , 2011, 43, 478-494.	0.4	26

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19	Operator theory and the Oka extension theorem. Hiroshima Mathematical Journal, 2015, 45, .	0.1	26
20	Non-commutative holomorphic functions on operator domains. European Journal of Mathematics, 2015, 1, 731-745.	0.2	25
21	Non-commutative automorphisms of bounded non-commutative domains. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2016, 146, 1037-1045.	0.8	25
22	The Smirnov class for spaces with the complete Pick property. Journal of the London Mathematical Society, 2017, 96, 228-242.	0.5	23
23	On the representation of holomorphic functions on polyhedra. Michigan Mathematical Journal, 2013, 62, .	0.2	22
24	The Julia-Carathéodory theorem on the bidisk revisited. Acta Scientiarum Mathematicarum, 2017, 83, 165-175.	0.2	22
25	Wandering Montel theorems for Hilbert space valued holomorphic functions. Proceedings of the American Mathematical Society, 2018, 146, 4353-4367.	0.4	20
26	Interpolating Sequences in Spaces with the Complete Pick Property. International Mathematics Research Notices, 2019, 2019, 3832-3854.	0.5	19
27	Evaluation of Root- $\epsilon_n$ Bandwidth Selectors for Kernel Density Estimation. Journal of Wildlife Management, 2010, 74, 539-548.	0.7	17
28	Multipliers of de Branges spaces.. Michigan Mathematical Journal, 1991, 38, 225.	0.2	16
29	Geometric interpolation between Hilbert spaces. Arkiv for Matematik, 1992, 30, 321-330.	0.2	15
30	Real-time calculation of a limiting form of the Renyi entropy applied to detection of subtle changes in scattering architecture. Journal of the Acoustical Society of America, 2009, 126, 2350-2358.	0.5	15
31	Local and distributed PiB accumulation associated with development of preclinical Alzheimer's disease. Neurobiology of Aging, 2016, 38, 104-111.	1.5	15
32	Factorizations induced by complete Nevanlinna-Pick factors. Advances in Mathematics, 2018, 335, 372-404.	0.5	15
33	Joint entropy of continuously differentiable ultrasonic waveforms. Journal of the Acoustical Society of America, 2013, 133, 283-300.	0.5	14
34	Positivity aspects of the Fantappià transform. Journal D'Analyse Mathématique, 2005, 97, 57-82.	0.4	13
35	On the Isomorphism Question for Complete Pick Multiplier Algebras. Integral Equations and Operator Theory, 2013, 76, 39-53.	0.4	13
36	Topologies on the Smirnov class. Journal of Functional Analysis, 1992, 104, 229-241.	0.7	12

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37	Equilibrium of highly asymmetric non-neutral plasmas. <i>Physics of Plasmas</i> , 1999, 6, 12-18.	0.7	12
38	Geometric characterizations of centroids of simplices. <i>Journal of Mathematical Analysis and Applications</i> , 2006, 316, 87-109.	0.5	12
39	Improved signal processing to detect cancer by ultrasonic molecular imaging of targeted nanoparticles. <i>Journal of the Acoustical Society of America</i> , 2011, 129, 3756-3767.	0.5	9
40	Reflexivity of subnormal operators. <i>Pacific Journal of Mathematics</i> , 1993, 161, 359-370.	0.2	9
41	Boundary Values and Cowenâ€™s Douglas Curvature. <i>Journal of Functional Analysis</i> , 1996, 137, 1-18.	0.7	8
42	Use of smoothing splines for analysis of backscattered ultrasonic waveforms: Application to monitoring of steroid treatment of dystrophic mice. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2011, 58, 2361-2369.	1.7	8
43	Spaces of Dirichlet series with the complete Pick property. <i>Israel Journal of Mathematics</i> , 2017, 220, 509-530.	0.4	8
44	INTERPOLATING SEQUENCES ON THE BIDISK. <i>International Journal of Mathematics</i> , 2001, 12, 1103-1114.	0.2	7
45	Hyperbolic algebraic and analytic curves. <i>Indiana University Mathematics Journal</i> , 2007, 56, 2899-2934.	0.4	7
46	Application of a real-time, calculable limiting form of the Renyi entropy for molecular imaging of tumors. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2010, 57, 1890-1895.	1.7	7
47	Entropy vs. Energy Waveform Processing: A Comparison Based on the Heat Equation. <i>Entropy</i> , 2015, 17, 3518-3551.	1.1	7
48	Radially Weighted Besov Spaces and the Pick Property. <i>Trends in Mathematics</i> , 2019, , 29-61.	0.1	7
49	Modeling the relative risk of SARS-CoV-2 infection to inform risk-cost-benefit analyses of activities during the SARS-CoV-2 pandemic. <i>PLoS ONE</i> , 2021, 16, e0245381.	1.1	7
50	Nevanlinna-Pick interpolation on the bidisk. , 0, .		7
51	Unitary $\gamma$ -dilations for tuples of commuting matrices. <i>Proceedings of the American Mathematical Society</i> , 2013, 141, 563-571.	0.4	6
52	Acoustic firearm discharge detection and classification in an enclosed environment. <i>Journal of the Acoustical Society of America</i> , 2016, 139, 2723-2731.	0.5	6
53	Unions of Lebesgue spaces and $A_1$ majorants. <i>Pacific Journal of Mathematics</i> , 2016, 280, 411-432.	0.2	6
54	Common range of co-analytic Toeplitz operators. <i>Journal of the American Mathematical Society</i> , 1990, 3, 793-799.	1.9	6

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55	Thin sequences and the Gram matrix. Archiv Der Mathematik, 2014, 103, 93-99.	0.3	5
56	Solving Poisson's equation with interior conditions. Journal of Mathematical Physics, 1998, 39, 6720-6729.	0.5	4
57	Hankel vector moment sequences and the non-tangential regularity at infinity of two variable Pick functions. Transactions of the American Mathematical Society, 2013, 366, 1379-1411.	0.5	4
58	Non-commutative manifolds, the free square root and symmetric functions in two non-commuting variables. Transactions of the London Mathematical Society, 2018, 5, 132-183.	0.3	4
59	A note on $H^2$ optimal control problems with passivity constraints. IEEE Transactions on Automatic Control, 2000, 45, 286-290.	3.6	3
60	Non-commutative functional calculus. Journal D'Analyse Mathematique, 2019, 137, 211-229.	0.4	3
61	What Can Hilbert Spaces Tell Us About Bounded Functions in the Bidisk?. , 2010, , 81-97.		3
62	The Takagi problem on the disk and bidisk. Acta Scientiarum Mathematicarum, 2013, 79, 63-78.	0.2	3
63	Analytic structures for subnormal operators. Integral Equations and Operator Theory, 1990, 13, 251-270.	0.4	2
64	Global Holomorphic Functions in Several Non-Commuting Variables II. Canadian Mathematical Bulletin, 2018, 61, 458-463.	0.3	2
65	Symbol functions for symmetric frameworks. Journal of Mathematical Analysis and Applications, 2021, 497, 124895.	0.5	2
66	Corrigendum to: Operator monotone functions and Löwner functions of several variables. Annals of Mathematics, 2014, 180, 403-405.	2.1	2
67	Coefficient estimates on weighted Bergman spaces. Duke Mathematical Journal, 1994, 76, 751.	0.8	1
68	Resolution of Murine Toxic Hepatic Injury Quantified With Ultrasound Entropy Metrics. Ultrasound in Medicine and Biology, 2019, 45, 2777-2786.	0.7	1
69	The Use of Kernel Functions in Solving the Pick Interpolation Problem. , 2015, , 59-71.		1
70	The Apical Angle: A Mathematical Analysis of the Ellipse. Dermatologic Surgery, 2001, 27, 61-63.	0.4	1
71	Weighted Bergman Spaces. , 2020, , 301-306.		1
72	The Krzyż Conjecture and an Entropy Conjecture. Journal D'Analyse Mathematique, 2021, 144, 207-226.	0.4	1

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73	The Use of Kernel Functions in Solving the Pick Interpolation Problem. , 2014, , 1-11.		0
74	Additional results for $\epsilon$ -joint entropy of continuously differentiable ultrasonic waveforms[J]. Acoust. Soc. Am. 133(1), 283-300 (2013)]. Journal of the Acoustical Society of America, 2015, 137, 501-501.	0.5	0
75	High contrast ultrasonic imaging of resin-rich regions in graphite/epoxy composites using entropy. AIP Conference Proceedings, 2016, , .	0.3	0
76	A non-commutative Julia inequality. Mathematische Annalen, 2018, 370, 423-446.	0.7	0
77	How Often Do You Want Your Team to Win?. Mathematical Intelligencer, 0, , 1.	0.1	0
78	Operator NC functions. Canadian Mathematical Bulletin, 0, , 1-17.	0.3	0