

# Christopher Rose

## List of Publications by Year in descending order

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47  
papers

1,299  
citations

567281

15  
h-index

414414

32  
g-index

50  
all docs

50  
docs citations

50  
times ranked

683  
citing authors

#	ARTICLE	IF	CITATIONS
1	Leveraging autocatalytic reactions for chemical domain image classification. <i>Chemical Science</i> , 2021, 12, 5464-5472.	7.4	4
2	Implementing parallel arithmetic via acetylation and its application to chemical image processing. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2021, 477, .	2.1	1
3	Secret messaging with endogenous chemistry. <i>Scientific Reports</i> , 2021, 11, 13960.	3.3	1
4	Heterogeneity in susceptibility dictates the order of epidemic models. <i>Journal of Theoretical Biology</i> , 2021, 528, 110839.	1.7	14
5	Principles of Information Storage in Small-Molecule Mixtures. <i>IEEE Transactions on Nanobioscience</i> , 2020, 19, 378-384.	3.3	17
6	Multicomponent molecular memory. <i>Nature Communications</i> , 2020, 11, 691.	12.8	40
7	Capacities and Optimal Input Distributions for Particle-Intensity Channels. <i>IEEE Transactions on Molecular, Biological, and Multi-Scale Communications</i> , 2020, 6, 220-232.	2.1	14
8	High-Dimensional Time Series Feature Extraction for Low-Cost Machine Olfaction. <i>IEEE Sensors Journal</i> , 2020, , 1-1.	4.7	11
9	Encoding information in synthetic metabolomes. <i>PLoS ONE</i> , 2019, 14, e0217364.	2.5	18
10	Capacity Bounds on Point-to-Point Communication Using Molecules. <i>Proceedings of the IEEE</i> , 2019, 107, 1342-1355.	21.3	11
11	A General Upper Bound on Point-to-Point Particle Timing Channel Capacity Under Constant Particle Emission Intensity. , 2019, , .		0
12	Time Series Feature Extraction for Machine Olfaction. , 2019, , .		1
13	High Speed Chemical Vapor Communication Using Photoionization Detectors. , 2018, , .		12
14	Parallelized Linear Classification with Volumetric Chemical Perceptrons. , 2018, , .		7
15	High Speed Chemical Vapor Communication Using Photoionization Detectors in Turbulent Flow. <i>IEEE Transactions on Molecular, Biological, and Multi-Scale Communications</i> , 2018, 4, 160-170.	2.1	7
16	Computing with Chemicals: Perceptrons Using Mixtures of Small Molecules. , 2018, , .		2
17	Spatiotemporal information preservation in turbulent vapor plumes. <i>Applied Physics Letters</i> , 2018, 112, 264103.	3.3	19
18	Correlated Transmission and Detection of Concentration-Modulated Chemical Vapor Plumes. <i>IEEE Sensors Journal</i> , 2018, 18, 6504-6509.	4.7	14

#	ARTICLE	IF	CITATIONS
19	Capacity of molecular channels with imperfect particle-intensity modulation and detection. , 2017, , .		14
20	Inscribed Matter Communication: Part II. IEEE Transactions on Molecular, Biological, and Multi-Scale Communications, 2016, 2, 228-239.	2.1	15
21	Inscribed Matter Communication: Part I. IEEE Transactions on Molecular, Biological, and Multi-Scale Communications, 2016, 2, 209-227.	2.1	32
22	State estimation, wireless tropes, demons and uncertainty. , 2016, , .		0
23	A fundamental framework for molecular communication channels: Timing & payload. , 2015, , .		16
24	Guest Editorial Series on Molecular, Biological, and Multiscale Communication (First Issue). IEEE Journal on Selected Areas in Communications, 2014, 32, 2313-2314.	14.0	0
25	Signaling with identical tokens: Upper bounds with energy constraints. , 2014, , .		12
26	Signaling with identical tokens: Lower bounds with energy constraints. , 2013, , .		15
27	An additive exponential noise channel with a transmission deadline. , 2011, , .		8
28	MIMO power strategies for limited transmitter CSI. , 2010, , .		1
29	Simultaneous Water Filling in Mutually Interfering Systems. IEEE Transactions on Wireless Communications, 2007, 6, 1102-1113.	9.2	47
30	Interference Avoidance and Multiaccess Vector Channels. IEEE Transactions on Communications, 2007, 55, 1466-1471.	7.8	15
31	Channel Probing under a Power Budget. , 2006, , .		3
32	Coping with Uncertainty in Mobile Wireless Networks. , 2005, , 189-204.		4
33	Maximizing the determinant for a special class of block-partitioned matrices. Mathematical Problems in Engineering, 2004, 2004, 49-61.	1.1	13
34	Inscribed matter as an energy-efficient means of communication with an extraterrestrial civilization. Nature, 2004, 431, 47-49.	27.8	124
35	Greedy SINR Maximization in Collaborative Multibase Wireless Systems. Eurasip Journal on Wireless Communications and Networking, 2004, 2004, 1.	2.4	11
36	Interference avoidance and multiuser MIMO systems. International Journal of Satellite Communications and Networking, 2003, 21, 143-161.	1.8	5

#	ARTICLE	IF	CITATIONS
37	Wireless systems and interference avoidance. IEEE Transactions on Wireless Communications, 2002, 1, 415-428.	9.2	177
38	CDMA codeword optimization: interference avoidance and convergence via class warfare. IEEE Transactions on Information Theory, 2001, 47, 2368-2382.	2.4	74
39	State-based paging/registration: a greedy technique. IEEE Transactions on Vehicular Technology, 1999, 48, 166-173.	6.3	60
40	Genetic algorithms applied to cellular call admission: local policies. IEEE Transactions on Vehicular Technology, 1997, 46, 72-79.	6.3	44
41	Ensemble polling strategies for increased paging capacity in mobile communication networks. Wireless Networks, 1997, 3, 159-167.	3.0	46
42	Analysis of a mobile-assisted adaptive location management strategy. Mobile Networks and Applications, 1996, 1, 105-112.	3.3	16
43	Genetic algorithms and call admission to telecommunications networks. Computers and Operations Research, 1996, 23, 485-499.	4.0	9
44	Scheduling arrivals to queues for minimum average blocking: The $S(n)/M/C/C$ system. Computers and Operations Research, 1995, 22, 793-806.	4.0	3
45	Minimizing the average cost of paging under delay constraints. Wireless Networks, 1995, 1, 211-219.	3.0	271
46	Mean internodal distance in regular and random multihop networks. IEEE Transactions on Communications, 1992, 40, 1310-1318.	7.8	47
47	Minimum distance automata in parallel networks for optimum classification. Neural Networks, 1989, 2, 127-132.	5.9	23