

# Christos H Papadimitriou

## List of Publications by Year in descending order

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107  
papers

14,245  
citations

30070

54  
h-index

33894

99  
g-index

111  
all docs

111  
docs citations

111  
times ranked

5744  
citing authors

#	ARTICLE	IF	CITATIONS
1	Bridging the Gap Between Neurons and Cognition Through Assemblies of Neurons. <i>Neural Computation</i> , 2022, 34, 291-306.	2.2	3
2	Brain computation by assemblies of neurons. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 14464-14472.	7.1	41
3	A Model for Structured Information Representation in Neural Networks of the Brain. <i>ENeuro</i> , 2020, 7, ENEURO.0533-19.2020.	1.9	7
4	Reductions in PPP. <i>Information Processing Letters</i> , 2019, 145, 48-52.	0.6	2
5	Towards a unified complexity theory of total functions. <i>Journal of Computer and System Sciences</i> , 2018, 94, 167-192.	1.2	14
6	TFNP: An Update. <i>Lecture Notes in Computer Science</i> , 2017, , 3-9.	1.3	2
7	Approximate Nash equilibria in anonymous games. <i>Journal of Economic Theory</i> , 2015, 156, 207-245.	1.1	56
8	The Complexity of the Homotopy Method, Equilibrium Selection, and Lemke-Howson Solutions. <i>ACM Transactions on Economics and Computation</i> , 2013, 1, 1-25.	1.1	19
9	The Complexity of the Homotopy Method, Equilibrium Selection, and Lemke-Howson Solutions. , 2011, , .		5
10	On the complexity of reconfiguration problems. <i>Theoretical Computer Science</i> , 2011, 412, 1054-1065.	0.9	182
11	Economies with non-convex production and complexity equilibria. , 2011, , .		4
12	An impossibility theorem for price-adjustment mechanisms. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 1854-1859.	7.1	8
13	Congestion games with malicious players. <i>Games and Economic Behavior</i> , 2009, 67, 22-35.	0.8	20
14	The complexity of computing a Nash equilibrium. <i>Communications of the ACM</i> , 2009, 52, 89-97.	4.5	99
15	The Connectivity of Boolean Satisfiability: Computational and Structural Dichotomies. <i>SIAM Journal on Computing</i> , 2009, 38, 2330-2355.	1.0	121
16	The Complexity of Computing a Nash Equilibrium. <i>SIAM Journal on Computing</i> , 2009, 39, 195-259.	1.0	543
17	Market equilibrium via a primal-dual algorithm for a convex program. <i>Journal of the ACM</i> , 2008, 55, 1-18.	2.2	151
18	Congestion games with malicious players. , 2007, , .		35

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19	The Complexity of Finding Nash Equilibria. , 2007, , 29-52.		45
20	Recognizing Hole-Free 4-Map Graphs in Cubic Time. Algorithmica, 2006, 45, 227-262.	1.3	21
21	On The Approximability Of The Traveling Salesman Problem. Combinatorica, 2006, 26, 101-120.	1.2	127
22	Reducibility among equilibrium problems. , 2006, , .		69
23	The complexity of computing a Nash equilibrium. , 2006, , .		284
24	Map graphs. Journal of the ACM, 2002, 49, 127-138.	2.2	55
25	On Approximating a Scheduling Problem. Journal of Combinatorial Optimization, 2001, 5, 287-297.	1.3	26
26	Chromosome abnormalities in ovarian adenocarcinoma: III. Using breakpoint data to infer and test mathematical models for oncogenesis. Genes Chromosomes and Cancer, 2000, 28, 106-120.	2.8	45
27	Distance-Based Reconstruction of Tree Models for Oncogenesis. Journal of Computational Biology, 2000, 7, 789-803.	1.6	96
28	Beyond Competitive Analysis. SIAM Journal on Computing, 2000, 30, 300-317.	1.0	138
29	The Complexity of Optimal Queuing Network Control. Mathematics of Operations Research, 1999, 24, 293-305.	1.3	345
30	Inferring Tree Models for Oncogenesis from Comparative Genome Hybridization Data. Journal of Computational Biology, 1999, 6, 37-51.	1.6	202
31	On the Complexity of Database Queries. Journal of Computer and System Sciences, 1999, 58, 407-427.	1.2	125
32	Exploring an unknown graph. Journal of Graph Theory, 1999, 32, 265-297.	0.9	118
33	On kernels, defaults and even graphs. Annals of Mathematics and Artificial Intelligence, 1997, 20, 1-12.	1.3	11
34	Tie-Breaking Semantics and Structural Totality. Journal of Computer and System Sciences, 1997, 54, 48-60.	1.2	2
35	NP-completeness: A retrospective. Lecture Notes in Computer Science, 1997, , 2-6.	1.3	30
36	The future of computational complexity theory: part I. ACM SIGACT News, 1996, 27, 6-12.	0.1	1

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37	On Limited Nondeterminism and the Complexity of the V-C Dimension. Journal of Computer and System Sciences, 1996, 53, 161-170.	1.2	154
38	Database metatheory. ACM SIGACT News, 1995, 26, 13-30.	0.1	4
39	Reversible simulation of space-bounded computations. Theoretical Computer Science, 1995, 143, 159-165.	0.9	14
40	On the $k$ -server conjecture. Journal of the ACM, 1995, 42, 971-983.	2.2	204
41	On the Complexity of Cooperative Solution Concepts. Mathematics of Operations Research, 1994, 19, 257-266.	1.3	451
42	Default theories that always have extensions. Artificial Intelligence, 1994, 69, 347-357.	5.8	21
43	On the complexity of the parity argument and other inefficient proofs of existence. Journal of Computer and System Sciences, 1994, 48, 498-532.	1.2	531
44	On complexity as bounded rationality (extended abstract). , 1994, , .		61
45	The Traveling Salesman Problem with Distances One and Two. Mathematics of Operations Research, 1993, 18, 1-11.	1.3	332
46	On Horn envelopes and hypergraph transversals. Lecture Notes in Computer Science, 1993, , 399-405.	1.3	43
47	On Inefficient Proofs of Existence and Complexity Classes. Annals of Discrete Mathematics, 1992, 51, 245-250.	1.4	16
48	Optimal Coteries on a Network. Annals of Discrete Mathematics, 1992, , 251-253.	1.4	0
49	The Complexity of the Linâ€™Kernighan Heuristic for the Traveling Salesman Problem. SIAM Journal on Computing, 1992, 21, 450-465.	1.0	66
50	On platers with a bounded number of states. Games and Economic Behavior, 1992, 4, 122-131.	0.8	47
51	On total functions, existence theorems and computational complexity. Theoretical Computer Science, 1991, 81, 317-324.	0.9	211
52	Shortest paths without a map. Theoretical Computer Science, 1991, 84, 127-150.	0.9	325
53	Why not negation by fixpoint?. Journal of Computer and System Sciences, 1991, 43, 125-144.	1.2	63
54	On path lengths modulo three. Journal of Graph Theory, 1991, 15, 267-282.	0.9	1

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55	The weighted region problem. <i>Journal of the ACM</i> , 1991, 38, 18-73.	2.2	232
56	A linear programming approach to reasoning about probabilities. <i>Annals of Mathematics and Artificial Intelligence</i> , 1990, 1, 189-205.	1.3	50
57	The Geometry of Grasping. <i>International Journal of Robotics Research</i> , 1990, 9, 61-74.	8.5	330
58	Towards an Architecture-Independent Analysis of Parallel Algorithms. <i>SIAM Journal on Computing</i> , 1990, 19, 322-328.	1.0	320
59	Optimum Grip of a Polygon. <i>International Journal of Robotics Research</i> , 1989, 8, 17-29.	8.5	148
60	Exponential lower bounds for finding Brouwer fix points. <i>Journal of Complexity</i> , 1989, 5, 379-416.	1.3	120
61	How easy is local search?. <i>Journal of Computer and System Sciences</i> , 1988, 37, 79-100.	1.2	514
62	Probabilistic satisfiability. <i>Journal of Complexity</i> , 1988, 4, 1-11.	1.3	132
63	On generating all maximal independent sets. <i>Information Processing Letters</i> , 1988, 27, 119-123.	0.6	583
64	The Complexity of Markov Decision Processes. <i>Mathematics of Operations Research</i> , 1987, 12, 441-450.	1.3	858
65	A Communication-Time Tradeoff. <i>SIAM Journal on Computing</i> , 1987, 16, 639-646.	1.0	76
66	The Discrete Geodesic Problem. <i>SIAM Journal on Computing</i> , 1987, 16, 647-668.	1.0	532
67	The Complexity of Reliable Concurrency Control. <i>SIAM Journal on Computing</i> , 1987, 16, 538-553.	1.0	4
68	Optimal piecewise linear motion of an object among obstacles. <i>Algorithmica</i> , 1987, 2, 523-539.	1.3	19
69	The 1-steiner tree problem. <i>Journal of Algorithms</i> , 1987, 8, 122-130.	0.9	52
70	Intractable Problems in Control Theory. <i>SIAM Journal on Control and Optimization</i> , 1986, 24, 639-654.	2.1	109
71	On the complexity of circulations. <i>Journal of Algorithms</i> , 1986, 7, 134-145.	0.9	9
72	Searching and pebbling. <i>Theoretical Computer Science</i> , 1986, 47, 205-218.	0.9	234

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73	Algorithmic aspects of multiversion concurrency control. Journal of Computer and System Sciences, 1986, 33, 297-310.	1.2	19
74	A note on succinct representations of graphs. Information and Control, 1986, 71, 181-185.	1.1	141
75	Shortest-path motion. Lecture Notes in Computer Science, 1986, , 144-153.	1.3	2
76	On negative cycles in mixed graphs. Operations Research Letters, 1985, 4, 113-116.	0.7	6
77	Games against nature. Journal of Computer and System Sciences, 1985, 31, 288-301.	1.2	189
78	An algorithm for shortest-path motion in three dimensions. Information Processing Letters, 1985, 20, 259-263.	0.6	164
79	The complexity of cubical graphs. Information and Control, 1985, 66, 53-60.	1.1	20
80	Interval graphs and searching. Discrete Mathematics, 1985, 55, 181-184.	0.7	111
81	The Complexity of Distributed Concurrency Control. SIAM Journal on Computing, 1985, 14, 52-74.	1.0	4
82	On Concurrency Control by Multiple Versions. ACM Transactions on Database Systems, 1984, 9, 89-99.	2.8	90
83	On the complexity of unique solutions. Journal of the ACM, 1984, 31, 392-400.	2.2	72
84	On two geometric problems related to the travelling salesman problem. Journal of Algorithms, 1984, 5, 231-246.	0.9	106
85	Inclusion dependencies and their interaction with functional dependencies. Journal of Computer and System Sciences, 1984, 28, 29-59.	1.2	179
86	Is distributed locking harder?. Journal of Computer and System Sciences, 1984, 28, 103-120.	1.2	5
87	The even-path problem for graphs and digraphs. Networks, 1984, 14, 507-513.	2.7	50
88	The Traveling Salesman Problem with Many Visits to Few Cities. SIAM Journal on Computing, 1984, 13, 99-108.	1.0	27
89	Polytopes and Complexity. , 1984, , 295-305.		7
90	Concurrency Control by Locking. SIAM Journal on Computing, 1983, 12, 215-226.	1.0	31

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91	A theorem in database concurrency control. Journal of the ACM, 1982, 29, 998-1006.	2.2	22
92	On Linear Characterizations of Combinatorial Optimization Problems. SIAM Journal on Computing, 1982, 11, 620-632.	1.0	125
93	Hamilton Paths in Grid Graphs. SIAM Journal on Computing, 1982, 11, 676-686.	1.0	385
94	On the complexity of designing distributed protocols. Information and Control, 1982, 53, 211-218.	1.1	26
95	Algebraic dependencies. Journal of Computer and System Sciences, 1982, 25, 2-41.	1.2	60
96	Worst-Case and Probabilistic Analysis of a Geometric Location Problem. SIAM Journal on Computing, 1981, 10, 542-557.	1.0	118
97	A fast algorithm for testing for safety and detecting deadlocks in locked transaction systems. Journal of Algorithms, 1981, 2, 211-226.	0.9	44
98	On minimal Eulerian graphs. Information Processing Letters, 1981, 12, 203-205.	0.6	2
99	Worst-case ration for planar graphs and the method of induction on faces. , 1981, , .		5
100	On the complexity of integer programming. Journal of the ACM, 1981, 28, 765-768.	2.2	362
101	Flowshop scheduling with limited temporary storage. Journal of the ACM, 1980, 27, 533-549.	2.2	197
102	The serializability of concurrent database updates. Journal of the ACM, 1979, 26, 631-653.	2.2	751
103	The adjacency relation on the traveling salesman polytope is NP-Complete. Mathematical Programming, 1978, 14, 312-324.	2.4	73
104	On the Complexity of Local Search for the Traveling Salesman Problem. SIAM Journal on Computing, 1977, 6, 76-83.	1.0	90
105	The Euclidean travelling salesman problem is NP-complete. Theoretical Computer Science, 1977, 4, 237-244.	0.9	602
106	On the complexity of edge traversing. Journal of the ACM, 1976, 23, 544-554.	2.2	131
107	Computation and Intractability: Echoes of Kurt GÅrdel. , 0, , 137-150.		0