Maurice Herlihy

List of Publications by Year
in descending order

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104	7,211	236833	128225
papers	citations	25 h-index	60 g-index

107	107	107	1302
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Load balanced distributed directories. Information and Computation, 2022, 285, 104700.	0.5	1
2	Fast Scheduling in Distributed Transactional Memory. Theory of Computing Systems, 2021, 65, 296-322.	0.7	3
3	Adding concurrency to smart contracts. Distributed Computing, 2020, 33, 209-225.	0.7	26
4	Dynamic Scheduling in Distributed Transactional Memory. , 2020, , .		3
5	Bounds on the Step and Namespace Complexity of Renaming. SIAM Journal on Computing, 2019, 48, 1-32.	0.8	8
6	CUDA-DTM: Distributed Transactional Memory for GPU Clusters. Lecture Notes in Computer Science, 2019, , 183-199.	1.0	3
7	A persistent lock-free queue for non-volatile memory. , 2018, , .		53
8	Hardware Transactional Memory Exploration in Coherence-Free Many-Core Architectures. International Journal of Parallel Programming, 2018, 46, 1304-1328.	1.1	1
9	Time-communication impossibility results for distributed transactional memory. Distributed Computing, 2018, 31, 471-487.	0.7	11
10	Load Balanced Distributed Directories. Lecture Notes in Computer Science, 2018, , 221-238.	1.0	0
11	An algorithmic approach to the asynchronous computability theorem. Journal of Applied and Computational Topology, 2018, 1, 451-474.	1.0	1
12	A persistent lock-free queue for non-volatile memory. ACM SIGPLAN Notices, 2018, 53, 28-40.	0.2	20
13	From wait-free to arbitrary concurrent solo executions in colorless distributed computing. Theoretical Computer Science, 2017, 683, 1-21.	0.5	14
14	Fast Scheduling in Distributed Transactional Memory. , 2017, , .		6
15	Asynchronous Computability Theorems for t-Resilient Systems. Lecture Notes in Computer Science, 2016, , 428-441.	1.0	5
16	Topology Approach in Distributed Computing. , 2016, , 2239-2242.		0
17	Multidimensional agreement in Byzantine systems. Distributed Computing, 2015, 28, 423-441.	0.7	28
18	Energy-Efficient and High-Performance Lock Speculation Hardware for Embedded Multicore Systems. Transactions on Embedded Computing Systems, 2015, 14, 1-27.	2.1	2

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19	Playing with Fire. , 2015, , .		5
20	Impossibility Results for Distributed Transactional Memory. , 2015, , .		4
21	Distributed computability in Byzantine asynchronous systems. , 2014, , .		11
22	Elements of Combinatorial Topology. , 2014, , 41-65.		43
23	An Equivariance Theorem with Applications to Renaming. Algorithmica, 2014, 70, 171-194.	1.0	1
24	Speculative synchronization for coherence-free embedded NUMA architectures. , 2014, , .		3
25	The topology of distributed adversaries. Distributed Computing, 2013, 26, 173-192.	0.7	16
26	Multidimensional approximate agreement in Byzantine asynchronous systems. , 2013, , .		42
27	Simulations and reductions for colorless tasks. , 2012, , .		16
28	Transactional memory. ACM SIGACT News, 2012, 43, 101-103.	0.1	3
29	Computability in distributed computing. ACM SIGACT News, 2012, 43, 88-110.	0.1	2
30	An Equivariance Theorem with Applications to Renaming. Lecture Notes in Computer Science, 2012, , 133-144.	1.0	7
31	SoC-TM. , 2011, , .		16
32	On the Nature of Progress. Lecture Notes in Computer Science, 2011, , 313-328.	1.0	63
33	Threshold protocols in survivor set systems. Distributed Computing, 2010, 23, 135-149.	0.7	5
34	Embedded-TM: Energy and complexity-effective hardware transactional memory for embedded multicore systems. Journal of Parallel and Distributed Computing, 2010, 70, 1042-1052.	2.7	28
35	The topology of shared-memory adversaries. , 2010, , .		19
36	Energy and Throughput Efficient Transactional Memory for Embedded Multicore Systems. Lecture Notes in Computer Science, 2010, , 50-65.	1.0	9

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37	On the weakest failure detector ever. Distributed Computing, 2009, 21, 353-366.	0.7	6
38	An Axiomatic Approach to Computing the Connectivity of Synchronous and Asynchronous Systems. Electronic Notes in Theoretical Computer Science, 2009, 230, 79-102.	0.9	13
39	Transactional boosting. , 2008, , .		224
40	Composable memory transactions. Communications of the ACM, 2008, 51, 91-100.	3.3	60
41	Energy efficient synchronization techniques for embedded architectures. , 2008, , .		13
42	Distributed computing and the multicore revolution. ACM SIGACT News, 2008, 39, 62-72.	0.1	33
43	Topology Approach in Distributed Computing. , 2008, , 956-958.		0
44	On the weakest failure detector ever. , 2007, , .		16
45	A Lazy Concurrent List-Based Set Algorithm. Parallel Processing Letters, 2007, 17, 411-424.	0.4	25
46	Distributed transactional memory for metric-space networks. Distributed Computing, 2007, 20, 195-208.	0.7	78
47	A hardware/software framework for supporting transactional memory in a MPSoC environment. Computer Architecture News, 2007, 35, 47-54.	2.5	9
48	Randomized smoothing networks. Journal of Parallel and Distributed Computing, 2006, 66, 626-632.	2.7	10
49	Self-stabilizing smoothing and balancing networks. Distributed Computing, 2006, 18, 345-357.	0.7	14
50	Dynamic Analysis of the Arrow Distributed Protocol. Theory of Computing Systems, 2006, 39, 875-901.	0.7	19
51	A flexible framework for implementing software transactional memory. , 2006, , .		113
52	A flexible framework for implementing software transactional memory. ACM SIGPLAN Notices, 2006, 41, 253-262.	0.2	44
53	Subconsensus Tasks: Renaming Is Weaker Than Set Agreement. Lecture Notes in Computer Science, 2006, , 329-338.	1.0	43
54	Snapshots and software transactional memory. Science of Computer Programming, 2005, 58, 310-324.	1.5	12

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55	Toward a theory of transactional contention managers. , 2005, , .		148
56	Energy reduction in multiprocessor systems using transactional memory. , 2005, , .		18
57	Composable memory transactions. , 2005, , .		432
58	Polymorphic Contention Management. Lecture Notes in Computer Science, 2005, , 303-323.	1.0	72
59	Virtualizing Transactional Memory. Computer Architecture News, 2005, 33, 494-505.	2.5	70
60	Read-modify-write networks. Distributed Computing, 2004, 17, 33-46.	0.7	3
61	A classification of wait-free loop agreement tasks. Theoretical Computer Science, 2003, 291, 55-77.	0.5	41
62	Space- and Time-adaptive Nonblocking Algorithms. Electronic Notes in Theoretical Computer Science, 2003, 78, 260-280.	0.9	12
63	Software transactional memory for dynamic-sized data structures. , 2003, , .		652
64	Tight Bounds for k-Set Agreement with Limited-Scope Failure Detectors. Lecture Notes in Computer Science, 2003, , 279-291.	1.0	1
65	Dynamic-sized lock-free data structures. , 2002, , .		16
66	Threshold counters with increments and decrements. Theoretical Computer Science, 2002, 270, 811-826.	0.5	0
67	The Repeat Offender Problem: A Mechanism for Supporting Dynamic-Sized, Lock-Free Data Structures. Lecture Notes in Computer Science, 2002, , 339-353.	1.0	39
68	Ordered Multicast and Distributed Swap. Operating Systems Review (ACM), 2001, 35, 85-96.	1.5	12
69	Competitive concurrent distributed queuing. , 2001, , .		30
70	On beyond registers. , 2001, , .		0
71	A New Synchronous Lower Bound for Set Agreement. Lecture Notes in Computer Science, 2001, , 136-150.	1.0	2
72	Self Stabilizing Distributed Queuing. Lecture Notes in Computer Science, 2001, , 209-223.	1.0	10

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73	Adding Networks. Lecture Notes in Computer Science, 2001, , 330-341.	1.0	1
74	Algebraic spans. Mathematical Structures in Computer Science, 2000, 10, 549-573.	0.5	49
75	A tale of two directories: implementing distributed shared objects in Java. Concurrency and Computation: Practice and Experience, 2000, 12, 555-572.	0.6	11
76	Review of Distributed Computing by Attiya and Welch. ACM SIGACT News, 2000, 31, 3.	0.1	0
77	A Combinatorial Characterization of Properties Preserved by Antitokens. Lecture Notes in Computer Science, 2000, , 575-582.	1.0	0
78	A tale of two directories. , 1999, , .		4
79	The topological structure of asynchronous computability. Journal of the ACM, 1999, 46, 858-923.	1.8	394
80	Time-Lapse Snapshots. SIAM Journal on Computing, 1999, 28, 1848-1874.	0.8	17
81	Unifying synchronous and asynchronous message-passing models. , 1998, , .		50
82	On the space complexity of randomized synchronization. Journal of the ACM, 1998, 45, 843-862.	1.8	79
83	A wait-free classification of loop agreement tasks. Lecture Notes in Computer Science, 1998, , 175-185.	1.0	4
84	The decidability of distributed decision tasks (extended abstract). , 1997, , .		51
85	Contention in shared memory algorithms. Journal of the ACM, 1997, 44, 779-805.	1.8	54
86	Linearizable counting networks. Distributed Computing, 1996, 9, 193-203.	0.7	37
87	Atomic snapshots using lattice agreement. Distributed Computing, 1995, 8, 121-132.	0.7	48
88	Scalable concurrent counting. ACM Transactions on Computer Systems, 1995, 13, 343-364.	0.6	39
89	Counting networks. Journal of the ACM, 1994, 41, 1020-1048.	1.8	134
90	Set consensus using arbitrary objects (preliminary version). , 1994, , .		35

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91	Transactional memory. Computer Architecture News, 1993, 21, 289-300.	2.5	340
92	The asynchronous computability theorem for t-resilient tasks. , 1993, , .		128
93	Bounded round number. , 1993, , .		16
94	Transactional memory. , 1993, , .		1,095
95	Contention in shared memory algorithms. , 1993, , .		41
96	Efficient atomic snapshots using lattice agreement. Lecture Notes in Computer Science, 1992, , 35-53.	1.0	15
97	Time-lapse snapshots. , 1992, , 154-170.		22
98	Counting networks and multi-processor coordination. , 1991, , .		44
99	Wait-free synchronization. ACM Transactions on Programming Languages and Systems, 1991, 13, 124-149.	1.7	1,312
100	Fast randomized consensus using shared memory. Journal of Algorithms, 1990, 11, 441-461.	0.9	213
101	Optimistic concurrency control for abstract data types. Operating Systems Review (ACM), 1987, 21, 33-44.	1.5	1
102	A quorum-consensus replication method for abstract data types. ACM Transactions on Computer Systems, 1986, 4, 32-53.	0.6	192
103	Comparing how atomicity mechanisms support replication. , 1985, , .		9
104	Dynamic scheduling in distributed transactional memory. Distributed Computing, 0, , 1.	0.7	1