Nancy Lynch

List of Publications by Year
in descending order

49 papers	4,403 citations	279487 23 h-index	253896 43 g-index
52 all docs	52 docs citations	52 times ranked	1740 citing authors

#	Article	IF	Citations
1	Consensus in the presence of partial synchrony. Journal of the ACM, 1988, 35, 288-323.	1.8	1,164
2	Brewer's conjecture and the feasibility of consistent, available, partition-tolerant web services. ACM SIGACT News, 2002, 33, 51-59.	0.1	1,114
3	Hybrid I/O automata. Information and Computation, 2003, 185, 105-157.	0.5	305
4	A new fault-tolerant algorithm for clock synchronization. Information and Computation, 1988, 77, 1-36.	0.5	214
5	An upper and lower bound for clock synchronization. Information and Control, 1984, 62, 190-204.	1.3	199
6	Perspectives on the CAP Theorem. Computer, 2012, 45, 30-36.	1.2	141
7	Hybrid I/O automata. Lecture Notes in Computer Science, 1996, , 496-510.	1.0	136
8	Forward and Backward Simulations. Information and Computation, 1996, 128, 1-25.	0.5	104
9	Forward and backward simulations for timing-based systems. Lecture Notes in Computer Science, 1992, , 397-446.	1.0	89
10	Specifying and using a partitionable group communication service. ACM Transactions on Computer Systems, 2001, 19, 171-216.	0.6	58
11	The Theory of Timed I/O Automata. Synthesis Lectures on Computer Science, 2006, 1, 1-114.	0.3	57
12	Bounds on the time to reach agreement in the presence of timing uncertainty. Journal of the ACM, 1994, 41, 122-152.	1.8	48
13	Verification of the randomized consensus algorithm of Aspnes and Herlihy: a case study. Distributed Computing, 2000, 13, 155-186.	0.7	47
14	Hybrid I/O Automata Revisited. Lecture Notes in Computer Science, 2001, , 403-417.	1.0	47
15	Switched PIOA: Parallel composition via distributed scheduling. Theoretical Computer Science, 2006, 365, 83-108.	0.5	45
16	Gradient clock synchronization. Distributed Computing, 2006, 18, 255-266.	0.7	45
17	Observing Branching Structure through Probabilistic Contexts. SIAM Journal on Computing, 2007, 37, 977-1013.	0.8	39
18	Broadcasting in unreliable radio networks. , 2010, , .		36

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19	Liveness in Timed and Untimed Systems. Information and Computation, 1998, 141, 119-171.	0.5	35
20	The abstract MAC layer. Distributed Computing, 2011, 24, 187-206.	0.7	34
21	Analyzing Security Protocols Using Time-Bounded Task-PIOAs. Discrete Event Dynamic Systems: Theory and Applications, 2008, 18, 111-159.	0.6	32
22	Compositionality for Probabilistic Automata. Lecture Notes in Computer Science, 2003, , 208-221.	1.0	32
23	Commutativity-based locking for nested transactions. Journal of Computer and System Sciences, 1990, 41, 65-156.	0.9	29
24	Safety verification for automated platoon maneuvers: A case study. Lecture Notes in Computer Science, 1997, , 154-170.	1.0	26
25	Consensus and collision detectors in radio networks. Distributed Computing, 2008, 21, 55-84.	0.7	24
26	Gradient clock synchronization. , 2004, , .		23
27	Safety Verification of an Aircraft Landing Protocol: A Refinement Approach. , 2007, , 557-572.		22
28	Decomposing broadcast algorithms using abstract MAC layers. , 2010, , .		21
29	Action transducers and timed automata. Formal Aspects of Computing, 1996, 8, 499-538.	1.4	20
30	Verifying average dwell time of hybrid systems. Transactions on Embedded Computing Systems, 2008, 8, 1-37.	2.1	19
31	The Theory of Timed I/O Automata, Second Edition. Synthesis Lectures on Distributed Computing Theory, 2010, 1, 1-137.	0.1	19
32	The Abstract MAC Layer. Lecture Notes in Computer Science, 2009, , 48-62.	1.0	15
33	Translating Timed I/O Automata Specifications for Theorem Proving in PVS. Lecture Notes in Computer Science, 2005, , 17-31.	1.0	14
34	Bounds on Contention Management in Radio Networks. Lecture Notes in Computer Science, 2012, , 223-237.	1.0	14
35	Verification of automated vehicle protection systems. Lecture Notes in Computer Science, 1996, , 101-113.	1.0	12
36	A Local Broadcast Layer for the SINR Network Model. , 2015, , .		12

#	Article	IF	Citations
37	Task-structured probabilistic I/O automata. Journal of Computer and System Sciences, 2018, 94, 63-97.	0.9	11
38	Quorum consensus in nested-transaction systems. ACM Transactions on Database Systems, 1994, 19, 537-585.	1.5	10
39	Decomposing broadcast algorithms using abstract MAC layers. Ad Hoc Networks, 2014, 12, 219-242.	3.4	10
40	Modelling and verification of automated transit systems, using timed automata, invariants and simulations. Lecture Notes in Computer Science, 1996, , 449-463.	1.0	9
41	Verifying Average Dwell Time by Solving Optimization Problems. Lecture Notes in Computer Science, 2006, , 476-490.	1.0	9
42	Structuring unreliable radio networks. Distributed Computing, 2014, 27, 1-19.	0.7	8
43	On the correctness of orphan management algorithms. Journal of the ACM, 1992, 39, 881-930.	1.8	5
44	Asynchronous leader election and MIS using abstract MAC layer. , 2012, , .		5
45	A toolbox for proving and maintaining hybrid specifications. Lecture Notes in Computer Science, 1997, , 18-30.	1.0	4
46	Computing in Additive Networks with Bounded-Information Codes. Lecture Notes in Computer Science, 2015, , 405-419.	1.0	2
47	Hybrid atomicity for nested transactions. Lecture Notes in Computer Science, 1992, , 216-230.	1.0	1
48	Hybrid atomicity for nested transactions. Theoretical Computer Science, 1995, 149, 151-178.	0.5	0
49	SNOW Revisited: Understanding When Ideal READ Transactions Are Possible. , 2021, , .		0