Ming-Sheng Ying

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	A new approach for fuzzy topology (I). Fuzzy Sets and Systems, 1991, 39, 303-321.	2.7	238
2	Four Locally Indistinguishable Ququad-Ququad Orthogonal Maximally Entangled States. Physical Review Letters, 2012, 109, 020506.	7.8	115
3	A formal model of computing with words. IEEE Transactions on Fuzzy Systems, 2002, 10, 640-652.	9.8	101
4	Entanglement is Not Necessary for Perfect Discrimination between Unitary Operations. Physical Review Letters, 2007, 98, 100503.	7.8	95
5	Parameter Estimation of Quantum Channels. IEEE Transactions on Information Theory, 2008, 54, 5172-5185.	2.4	94
6	Unambiguous discrimination among quantum operations. Physical Review A, 2006, 73, .	2.5	92
7	Perfect Distinguishability of Quantum Operations. Physical Review Letters, 2009, 103, 210501.	7.8	87
8	A logic for approximate reasoning. Journal of Symbolic Logic, 1994, 59, 830-837.	0.5	85
9	Floydhoare logic for quantum programs. ACM Transactions on Programming Languages and Systems, 2011, 33, 1-49.	2.1	82
10	Observability and decentralized control of fuzzy discrete-event systems. IEEE Transactions on Fuzzy Systems, 2006, 14, 202-216.	9.8	81
11	Supervisory Control of Fuzzy Discrete Event Systems. IEEE Transactions on Systems, Man, and Cybernetics, 2005, 35, 366-371.	5.0	78
12	Distinguishability of Quantum States by Separable Operations. IEEE Transactions on Information Theory, 2009, 55, 1320-1330.	2.4	78
13	Distinguishing Arbitrary Multipartite Basis Unambiguously Using Local Operations and Classical Communication. Physical Review Letters, 2007, 98, 230502.	7.8	77
14	Region Connection Calculus: Its models and composition table. Artificial Intelligence, 2003, 145, 121-146.	5.8	75
15	Quantum computation, quantum theory and Al. Artificial Intelligence, 2010, 174, 162-176.	5.8	75
16	Unambiguous discrimination between mixed quantum states. Physical Review A, 2004, 70, .	2.5	72
17	A new approach for fuzzy topology (II). Fuzzy Sets and Systems, 1992, 47, 221-232.	2.7	66
18	Reasoning about cardinal directions between extended objects. Artificial Intelligence, 2010, 174, 951-983.	5.8	61

#	Article	IF	CITATIONS
19	Locally indistinguishable subspaces spanned by three-qubit unextendible product bases. Physical Review A, 2010, 81, .	2.5	59
20	A new approach for fuzzy topology (III). Fuzzy Sets and Systems, 1993, 55, 193-207.	2.7	56
21	Automata Theory Based on Quantum Logic II. International Journal of Theoretical Physics, 2000, 39, 2545-2557.	1.2	51
22	A theory of computation based on quantum logic (I). Theoretical Computer Science, 2005, 344, 134-207.	0.9	50
23	Model checking quantum Markov chains. Journal of Computer and System Sciences, 2013, 79, 1181-1198.	1.2	49
24	Any <mml:math <br="" xmlns:mml="http://www.w3.org/1998/Math/MathML">display="inline"><mml:mrow><mml:mn>2</mml:mn><mml:mo>⊗</mml:mo><mml:mi>n</mml:mi>is locally distinguishable. Physical Review A, 2011, 84, .</mml:mrow></mml:math>	row2.s/mn	nl:maath>subsp
25	State-Based Control of Fuzzy Discrete-Event Systems. IEEE Transactions on Systems, Man, and Cybernetics, 2007, 37, 410-424.	5.0	46
26	Local Distinguishability of Multipartite Unitary Operations. Physical Review Letters, 2008, 100, 020503.	7.8	46
27	Projection-based runtime assertions for testing and debugging Quantum programs. , 2020, 4, 1-29.		45
28	Generalized Region Connection Calculus. Artificial Intelligence, 2004, 160, 1-34.	5.8	44
29	An algebra of quantum processes. ACM Transactions on Computational Logic, 2009, 10, 1-36.	0.9	44
30	Bisimulation indexes and their applications. Theoretical Computer Science, 2002, 275, 1-68.	0.9	43
31	Five two-qubit gates are necessary for implementing the Toffoli gate. Physical Review A, 2013, 88, .	2.5	43
32	Distinguishability of Quantum States by Positive Operator-Valued Measures With Positive Partial Transpose. IEEE Transactions on Information Theory, 2014, 60, 2069-2079.	2.4	43
33	Linguistic quantifiers modeled by Sugeno integrals. Artificial Intelligence, 2006, 170, 581-606.	5.8	42
34	Upper bound for the success probability of unambiguous discrimination among quantum states. Physical Review A, 2001, 64, .	2.5	40
35	Optimal conclusive discrimination of two states can be achieved locally. Physical Review A, 2005, 71, .	2.5	40
36	Proof rules for the correctness of quantum programs. Theoretical Computer Science, 2007, 386, 151-166.	0.9	40

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37	Identification and Distance Measures of Measurement Apparatus. Physical Review Letters, 2006, 96, 200401.	7.8	39
38	Fuzzifying topology based on complete residuated lattice-valued logic (I). Fuzzy Sets and Systems, 1993, 56, 337-373.	2.7	38
39	Perturbation of fuzzy reasoning. IEEE Transactions on Fuzzy Systems, 1999, 7, 625-629.	9.8	37
40	Reasoning about probabilistic sequential programs in a probabilistic logic. Acta Informatica, 2003, 39, 315-389.	0.5	37
41	Verification of quantum programs. Science of Computer Programming, 2013, 78, 1679-1700.	1.9	37
42	On standard models of fuzzy modal logics. Fuzzy Sets and Systems, 1988, 26, 357-363.	2.7	36
43	Automata Theory Based on Quantum Logic. (I). International Journal of Theoretical Physics, 2000, 39, 985-995.	1.2	34
44	An Algebraic Language for Distributed Quantum Computing. IEEE Transactions on Computers, 2009, 58, 728-743.	3.4	33
45	Set discrimination of quantum states. Physical Review A, 2002, 65, .	2.5	32
46	A modified quantum adiabatic evolution for the Deutsch–Jozsa problem. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 354, 271-273.	2.1	31
47	Probabilistic bisimulations for quantum processes. Information and Computation, 2007, 205, 1608-1639.	0.7	31
48	Quantum loop programs. Acta Informatica, 2010, 47, 221-250.	0.5	31
49	Implication operators in fuzzy logic. IEEE Transactions on Fuzzy Systems, 2002, 10, 88-91.	9.8	30
50	Quantum Supremacy Circuit Simulation on Sunway TaihuLight. IEEE Transactions on Parallel and Distributed Systems, 2020, 31, 805-816.	5.6	27
51	Approximate Bisimilarity. Lecture Notes in Computer Science, 2000, , 309-322.	1.3	27
52	Optimal simulation of Deutsch gates and the Fredkin gate. Physical Review A, 2015, 91, .	2.5	26
53	An applied quantum Hoare logic. , 2019, , .		26
54	Multiple-copy entanglement transformation and entanglement catalysis. Physical Review A, 2005, 71, .	2.5	25

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55	Mathematical nature of and a family of lower bounds for the success probability of unambiguous discrimination. Physical Review A, 2002, 65, .	2.5	24
56	Formal Verification of Quantum Algorithms Using Quantum Hoare Logic. Lecture Notes in Computer Science, 2019, , 187-207.	1.3	24
57	Bisimulation for quantum processes. , 2011, , .		22
58	Logic for quantum programs. , 2016, , 103-148.		22
59	Quantum adiabatic computation and adiabatic conditions. Physical Review A, 2007, 76, .	2.5	21
60	THE FUNDAMENTAL THEOREM OF ULTRAPRODUCT IN PAVELKA'S LOGIC. Zeitschrift Für Mathematische Logik Und Grundlagen Der Mathematik, 1992, 38, 197-201.	0.2	20
61	Fuzzifying uniform spaces. Fuzzy Sets and Systems, 1993, 53, 93-104.	2.7	20
62	A Flowchart Language for Quantum Programming. IEEE Transactions on Software Engineering, 2011, 37, 466-485.	5.6	20
63	Symbolic Bisimulation for Quantum Processes. ACM Transactions on Computational Logic, 2014, 15, 1-32.	0.9	19
64	Universal programmable devices for unambiguous discrimination. Physical Review A, 2006, 74, .	2.5	18
65	The LU-LC conjecture is false. Quantum Information and Computation, 2010, 10, 97-108.	0.3	18
66	The existence of quantum entanglement catalysts. IEEE Transactions on Information Theory, 2005, 51, 75-80.	2.4	17
67	Boundary effect of deterministic dense coding. Physical Review A, 2006, 73, .	2.5	17
68	Model-Checking Linear-Time Properties of Quantum Systems. ACM Transactions on Computational Logic, 2014, 15, 1-31.	0.9	17
69	Quantitative robustness analysis of quantum programs. , 2019, 3, 1-29.		17
70	Catalyst-Assisted Probabilistic Entanglement Transformation. IEEE Transactions on Information Theory, 2005, 51, 1090-1101.	2.4	16
71	Bisimulation for Quantum Processes. ACM Transactions on Programming Languages and Systems, 2012, 34, 1-43.	2.1	16
72	Compactness in fuzzifying topology. Fuzzy Sets and Systems, 1993, 55, 79-92.	2.7	15

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73	Quantifiers, modifiers and qualifiers in fuzzy logic. Journal of Applied Non-Classical Logics, 1997, 7, 335-342.	0.5	15
74	Additive models of probabilistic processes. Theoretical Computer Science, 2002, 275, 481-519.	0.9	15
75	Characterizations of quantum automata. Theoretical Computer Science, 2004, 312, 479-489.	0.9	15
76	Multipartite unlockable bound entanglement in the stabilizer formalism. Physical Review A, 2007, 75, .	2.5	15
77	On the method of neighborhood systems in fuzzy topology. Fuzzy Sets and Systems, 1994, 68, 227-238.	2.7	14
78	Approximate Reasoning Based on Similarity. Mathematical Logic Quarterly, 2000, 46, 77-86.	0.2	14
79	Fuzzy Topology Based on Residuated Lattice-Valued Logic. Acta Mathematica Sinica, English Series, 2001, 17, 89-102.	0.6	14
80	Lattice-theoretic models of conjectures, hypotheses and consequences. Artificial Intelligence, 2002, 139, 253-267.	5.8	14
81	Analysis of quantum programs. , 2016, , 149-207.		14
82	Unambiguous discrimination of mixed quantum states. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 353, 300-306.	2.1	13
83	Perfect many-to-one teleportation with stabilizer states. Physical Review A, 2008, 77, .	2.5	13
84	Existence of universal entangler. Journal of Mathematical Physics, 2008, 49, .	1.1	13
85	Differential Privacy in Quantum Computation. , 2017, , .		13
86	\$\$Q Slangle \$\$Q Sl⟩Â: A Quantum Programming Environment. Lecture Notes in Computer Science, 2018, , 133-164.	1.3	13
87	Reachability Probabilities of Quantum Markov Chains. Lecture Notes in Computer Science, 2013, , 334-348.	1.3	13
88	COMPACTNESS, THE L×WENHEIM-SKOLEM PROPERTY AND THE DIRECT PRODUCT OF LATTICES OF TRUTH VALUES. Zeitschrift Für Mathematische Logik Und Grundlagen Der Mathematik, 1992, 38, 521-524.	0.2	12
89	Probabilistic cloning and deleting of quantum states. Physical Review A, 2002, 65, .	2.5	12
90	Lower bound on inconclusive probability of unambiguous discrimination. Physical Review A, 2002, 66, .	2.5	12

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91	Termination of nondeterministic quantum programs. Acta Informatica, 2014, 51, 1-24.	0.5	12
92	Invariants of quantum programs: characterisations and generation. , 2017, , .		12
93	Reachability analysis of quantum Markov decision processes. Information and Computation, 2018, 263, 31-51.	0.7	12
94	Toward automatic verification of quantum programs. Formal Aspects of Computing, 2019, 31, 3-25.	1.8	12
95	Topology in Process Calculus. , 2001, , .		12
96	Deduction Theorem for Many-Valued Inference. Zeitschrift Für Mathematische Logik Und Grundlagen Der Mathematik, 1991, 37, 533-537.	0.2	11
97	Ï€-calculus with noisy channels. Acta Informatica, 2005, 41, 525-593.	0.5	11
98	Sequential voting rules and multiple elections paradoxes. , 2007, , .		11
99	Discrimination between pure states and mixed states. Physical Review A, 2007, 75, .	2.5	11
100	Commutativity of quantum weakest preconditions. Information Processing Letters, 2007, 104, 152-158.	0.6	11
101	Relational proofs for quantum programs. , 2020, 4, 1-29.		11
102	Quantum Hoare Logic with Classical Variables. ACM Transactions on Quantum Computing, 2021, 2, 1-43.	4.3	11
103	When catalysis is useful for probabilistic entanglement transformation. Physical Review A, 2004, 69, .	2.5	10
104	Trade-off between multiple-copy transformation and entanglement catalysis. Physical Review A, 2005, 71, .	2.5	10
105	Decomposition of quantum Markov chains and its applications. Journal of Computer and System Sciences, 2018, 95, 55-68.	1.2	10
106	Reachability and Termination Analysis of Concurrent Quantum Programs. Lecture Notes in Computer Science, 2012, , 69-83.	1.3	10
107	Reasonableness of the compositional rule of fuzzy inference. Fuzzy Sets and Systems, 1990, 36, 305-310.	2.7	9
108	Weak confluence and Ï"-inertness. Theoretical Computer Science, 2000, 238, 465-475.	0.9	9

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109	Entanglement-assisted transformation is asymptotically equivalent to multiple-copy transformation. Physical Review A, 2005, 72, .	2.5	9
110	A Quantum Interpretation of Bunched Logic & Quantum Separation Logic. , 2021, , .		9
111	A proof system for disjoint parallel quantum programs. Theoretical Computer Science, 2022, 897, 164-184.	0.9	9
112	Predicate Transformer Semantics of Quantum Programs. , 0, , 311-360.		8
113	SOME NOTES ON MULTIDIMENSIONAL FUZZY REASONING. Cybernetics and Systems, 1988, 19, 281-293.	2.5	8
114	Quantum logic and automata theory. , 2007, , 619-754.		8
115	Quantum programming: From theories to implementations. Science Bulletin, 2012, 57, 1903-1909.	1.7	8
116	Debugging quantum processes using monitoring measurements. Physical Review A, 2014, 89, .	2.5	8
117	Approximate reasoning with linguistic modifiers. International Journal of Intelligent Systems, 1998, 13, 403-418.	5.7	7
118	Quantum operation, quantum Fourier transform and semi-definite programming. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 323, 48-56.	2.1	7
119	Soft constraint abstraction based on semiring homomorphism. Theoretical Computer Science, 2008, 403, 192-201.	0.9	7
120	Algorithmic analysis of termination problems for quantum programs. , 2018, 2, 1-29.		7
121	Invariants of quantum programs: characterisations and generation. ACM SIGPLAN Notices, 2017, 52, 818-832.	0.2	7
122	Some Issues in Quantum Information Theory. Journal of Computer Science and Technology, 2006, 21, 776-789.	1.5	6
123	Relation between catalyst-assisted transformation and multiple-copy transformation for bipartite pure states. Physical Review A, 2006, 74, .	2.5	6
124	Deterministic distributed dense coding with stabilizer states. Physical Review A, 2008, 77, .	2.5	6
125	Bisimulation for quantum processes. ACM SIGPLAN Notices, 2011, 46, 523-534.	0.2	6
126	Approximating Markov processes through filtration. Theoretical Computer Science, 2012, 446, 75-97.	0.9	6

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127	Probabilistic automata for computing with words. Journal of Computer and System Sciences, 2013, 79, 152-172.	1.2	6
128	Strassen's theorem for quantum couplings. Theoretical Computer Science, 2020, 802, 67-76.	0.9	6
129	Robustness Verification of Quantum Classifiers. Lecture Notes in Computer Science, 2021, , 151-174.	1.3	6
130	Optimal Policies for Quantum Markov Decision Processes. International Journal of Automation and Computing, 2021, 18, 410-421.	4.5	6
131	Comparability of multipartite entanglement. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 330, 418-423.	2.1	5
132	Efficiency of deterministic entanglement transformation. Physical Review A, 2005, 71, .	2.5	5
133	Partial recovery of quantum entanglement. IEEE Transactions on Information Theory, 2006, 52, 3080-3104.	2.4	5
134	Optimal simulation of a perfect entangler. Physical Review A, 2010, 81, .	2.5	5
135	When is the ideal completion of abstract basis algebraic. Theoretical Computer Science, 1996, 159, 355-356.	0.9	4
136	A model of reasoning about knowledge. Science in China Series D: Earth Sciences, 1998, 41, 527-534.	0.9	4
137	A shorter proof to uniqueness of solutions of equations. Theoretical Computer Science, 1999, 216, 395-397.	0.9	4
138	Topology in process calculus (I): Limit behaviour of agents. Journal of Computer Science and Technology, 1999, 14, 328-336.	1.5	4
139	A theory of computation based on quantum logic (I). , 2005, , .		4
140	A relation between fidelity and quantum adiabatic evolution. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 356, 312-315.	2.1	4
141	Publisher's Note: Entanglement is Not Necessary for Perfect Discrimination between Unitary Operations [Phys. Rev. Lett.PRLTAO0031-900798, 100503 (2007)]. Physical Review Letters, 2007, 98, .	7.8	4
142	Dealing with uncertainty and fuzziness in intelligent systems. International Journal of Intelligent Systems, 2009, 24, 223-225.	5.7	4
143	Process Calculus. , 2001, , 11-36.		4
144	Verification of Distributed Quantum Programs. ACM Transactions on Computational Logic, 2022, 23, 1-40.	0.9	4

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145	The alternativity measures of fuzzy sets. Fuzzy Sets and Systems, 1990, 37, 105-110.	2.7	3
146	Local unambiguous discrimination with remaining entanglement. Physical Review A, 2010, 82, .	2.5	3
147	Quantum Information-Flow Security: Noninterference and Access Control. , 2013, , .		3
148	Model-checking quantum systems. National Science Review, 2019, 6, 28-31.	9.5	3
149	Foundations of Quantum Programming (Extended Abstract). Lecture Notes in Computer Science, 2010, , 16-20.	1.3	3
150	Reachability Analysis of Recursive Quantum Markov Chains. Lecture Notes in Computer Science, 2013, , 385-396.	1.3	3
151	(Un)decidable Problems about Reachability of Quantum Systems. Lecture Notes in Computer Science, 2014, , 482-496.	1.3	3
152	Algebraic reasoning of Quantum programs via non-idempotent Kleene algebra. , 2022, , .		3
153	Fuzzy semilattices. Information Sciences, 1987, 43, 155-159.	6.9	2
154	Recursive equations in higher-order process calculi. Theoretical Computer Science, 2001, 266, 839-852.	0.9	2
155	Wootters–Zurek quantum-copying machine: the higher-dimensional case. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 299, 107-115.	2.1	2
156	Local discrimination of maximally entangled states in canonical form. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 333, 232-234.	2.1	2
157	Knowledge transformation and fusion in diagnostic systems. Artificial Intelligence, 2005, 163, 1-45.	5.8	2
158	Local cloning of two product states. Physical Review A, 2005, 72, .	2.5	2
159	Similarity-Based Supervisory Control of Discrete-Event Systems. IEEE Transactions on Automatic Control, 2006, 51, 325-330.	5.7	2
160	Probabilistic bisimulations for quantum processes. Information and Computation, 2007, , .	0.7	2
161	Removing measurements from quantum walks. Physical Review A, 2013, 87, .	2.5	2
162	Equivalence checking of quantum finite-state machines. Journal of Computer and System Sciences, 2021, 116, 1-21.	1.2	2

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163	An HHL-based algorithm for computing hitting probabilities of quantum walks. Quantum Information and Computation, 2021, 21, 395-404.	0.3	2
164	A counter-example of Gottwald's theorem. Fuzzy Sets and Systems, 1987, 23, 399-400.	2.7	1
165	On a class of non-causal triangle functions. Mathematical Proceedings of the Cambridge Philosophical Society, 1989, 106, 467-469.	0.4	1
166	Universal and original-preserving quantum copying is impossible. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 297, 1-3.	2.1	1
167	Universal quantum-copying machines: a sufficient and necessary condition. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 302, 1-7.	2.1	1
168	Majorization in quantum adiabatic algorithms. Physical Review A, 2006, 74, .	2.5	1
169	On fundamentals of fuzzy logic and soft computing and some applications. Fuzzy Sets and Systems, 2007, 158, 927-928.	2.7	1
170	Preface to special topic on quantum computing. National Science Review, 2019, 6, 20-20.	9.5	1
171	Limits of Agents in Process Calculus. , 1999, , 221-240.		1
172	Report from Jiangxi Province, People's Republic of China. Fuzzy Sets and Systems, 1988, 25, 382.	2.7	0
173	On Zadeh's method for interpreting linguistically quantified proposition. , 0, , .		0
174	On ϵ-fuzzy sets. Fuzzy Sets and Systems, 1989, 31, 123-129.	2.7	0
175	On probalistic normed spaces underl̈"T,L. International Journal of Mathematics and Mathematical Sciences, 1990, 13, 731-736.	0.7	0
176	Putting consistent theories together in institutions. Journal of Computer Science and Technology, 1995, 10, 260-266.	1.5	0
177	Institutions of variable truth values: An approach in the ordered style. Journal of Computer Science and Technology, 1995, 10, 267-273.	1.5	0
178	Quantifiers, modifiers and qualifiers in fuzzy logic. , 0, , .		0
179	Compactness in fuzzy logic. Science Bulletin, 1998, 43, 1166-1171.	1.7	0
180	Phase semantics for a pure noncommutative linear propositional logic. Journal of Computer Science and Technology, 1999, 14, 135-139.	1.5	0

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181	Process algebra approach to reasoning about concurrent actions. Journal of Computer Science and Technology, 2004, 19, 364-373.	1.5	0
182	Publisher's Note: Distinguishing Arbitrary Multipartite Basis Unambiguously Using Local Operations and Classical Communication [Phys. Rev. Lett. 98 , 230502 (2007)]. Physical Review Letters, 2007, 99, .	7.8	0
183	Topology, randomness and noise in process calculus. Frontiers of Electrical and Electronic Engineering in China: Selected Publications From Chinese Universities, 2007, 2, 127-131.	0.6	0
184	Semantic Analysis of Component-aspect Dynamism for Connector-based Architecture Styles. , 2012, , .		0
185	Quantum case statements. , 2016, , 211-271.		0
186	Syntax and semantics of quantum programs. , 2016, , 61-102.		0
187	Bisimulation Indexes Induced by Metrics on Actions. , 2001, , 139-206.		0
188	Limit Behavior of Agents. , 2001, , 95-111.		0
189	Quantum recursion. , 2016, , 273-324.		0
190	Super-activating quantum memory with entanglement. Quantum Information and Computation, 2018, 18, 1115-1124.	0.3	0