Francesco Petruccione

List of Publications by Year
in descending order

261 papers	10,729 citations	71097 41 h-index	54911 84 g-index
276 all docs	276 docs citations	276 times ranked	9885 citing authors

#	Article	IF	Citations
1	Detection of a SARS-CoV-2 variant of concern in South Africa. Nature, 2021, 592, 438-443.	27.8	1,381
2	An introduction to quantum machine learning. Contemporary Physics, 2015, 56, 172-185.	1.8	592
3	The quest for a Quantum Neural Network. Quantum Information Processing, 2014, 13, 2567-2586.	2.2	337
4	Sixteen novel lineages of SARS-CoV-2 in South Africa. Nature Medicine, 2021, 27, 440-446.	30.7	326
5	Higher-dimensional orbital-angular-momentum-based quantum key distribution with mutually unbiased bases. Physical Review A, 2013, 88, .	2.5	264
6	Stochastic wave-function method for non-Markovian quantum master equations. Physical Review A, 1999, 59, 1633-1643.	2.5	256
7	Supervised Learning with Quantum Computers. Quantum Science and Technology, 2018, , .	2.6	241
8	Non-Markovian dynamics in a spin star system: Exact solution and approximation techniques. Physical Review B, 2004, 70, .	3.2	214
9	Prediction by linear regression on a quantum computer. Physical Review A, 2016, 94, .	2.5	188
10	Non-Markovian dynamics of a qubit. Physical Review A, 2006, 73, .	2.5	161
11	Implementing a distance-based classifier with a quantum interference circuit. Europhysics Letters, 2017, 119, 60002.	2.0	148
12	The future of quantum biology. Journal of the Royal Society Interface, 2018, 15, 20180640.	3.4	136
13	The Time-Convolutionless Projection Operator Technique in the Quantum Theory of Dissipation and Decoherence. Annals of Physics, 2001, 291, 36-70.	2.8	125
14	Simulating a perceptron on a quantum computer. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 660-663.	2.1	114
15	Open Quantum Random Walks. Journal of Statistical Physics, 2012, 147, 832-852.	1.2	111
16	Quantum classifier with tailored quantum kernel. Npj Quantum Information, 2020, 6, .	6.7	91
17	Lindblad- and non-Lindblad-type dynamics of a quantum Brownian particle. Physical Review A, 2004, 70, .	2.5	85
18	Exact dynamics of a two-qubit system in a spin star environment. Physical Review B, 2006, 73, .	3.2	79

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19	Perturbative approach to Markovian open quantum systems. Scientific Reports, 2014, 4, 4887.	3.3	76
20	A divide-and-conquer algorithm for quantum state preparation. Scientific Reports, 2021, 11, 6329.	3.3	72
21	Quasistationary distributions of dissipative nonlinear quantum oscillators in strong periodic driving fields. Physical Review E, 2000, 61, 4883-4889.	2.1	68
22	Circuit-Based Quantum Random Access Memory for Classical Data. Scientific Reports, 2019, 9, 3949.	3.3	68
23	Quantum Models as Kernel Methods. Quantum Science and Technology, 2021, , 217-245.	2.6	66
24	Quantum gradient descent and Newton's method for constrained polynomial optimization. New Journal of Physics, 2019, 21, 073023.	2.9	65
25	Destruction of quantum coherence through emission of bremsstrahlung. Physical Review A, 2001, 63, .	2.5	64
26	Dynamics of nonequilibrium thermal entanglement. Physical Review A, 2008, 78, .	2.5	64
27	Early transmission of SARS-CoV-2 in South Africa: An epidemiological and phylogenetic report. International Journal of Infectious Diseases, 2021, 103, 234-241.	3.3	63
28	Dissipation-induced stationary entanglement in dipole-dipole interacting atomic samples. Physical Review A, 2004, 70, .	2.5	55
29	Fluctuation effects on wave propagation in a reaction-diffusion process. Physica D: Nonlinear Phenomena, 1994, 73, 259-273.	2.8	54
30	Open quantum walks on graphs. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 1545-1548.	2.1	54
31	Stochastic dynamics of quantum jumps. Physical Review E, 1995, 52, 428-441.	2.1	50
32	Quantum ensembles of quantum classifiers. Scientific Reports, 2018, 8, 2772.	3.3	47
33	Universal simulation of Markovian open quantum systems. Physical Review A, 2015, 91, .	2.5	46
34	Decoherence-Assisted Transport in a Dimer System. Physical Review Letters, 2012, 108, 020602.	7.8	45
35	Quantum coherence, many-body correlations, and non-thermal effects for autonomous thermal machines. Scientific Reports, 2019, 9, 3191.	3.3	45
36	Simulating quantum Brownian motion with single trapped ions. Physical Review A, 2004, 69, .	2.5	44

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37	Quantum Computing for Pattern Classification. Lecture Notes in Computer Science, 2014, , 208-220.	1.3	44
38	Tackling Africa's digital divide. Nature Photonics, 2018, 12, 249-252.	31.4	44
39	The Macroscopic Limit in a Stochastic Reaction-Diffusion Process. Europhysics Letters, 1995, 30, 69-74.	2.0	43
40	Reduced System Dynamics as a Stochastic Process in Hilbert Space. Physical Review Letters, 1995, 74, 3788-3791.	7.8	42
41	Time evolution and decoherence of a spin-12particle coupled to a spin bath in thermal equilibrium. Physical Review B, 2007, 76, .	3.2	42
42	A numerical stochastic approach to network theories of polymeric fluids. Journal of Chemical Physics, 1988, 89, 577-582.	3.0	41
43	Dissipative quantum systems in strong laser fields: Stochastic wave-function method and Floquet theory. Physical Review A, 1997, 55, 3101-3116.	2.5	41
44	Parametrizations of density matrices. Journal of Modern Optics, 2012, 59, 1-20.	1.3	39
45	Non-Markovian Evolution: a Quantum Walk Perspective. Open Systems and Information Dynamics, 2018, 25, 1850014.	1.2	38
46	Quantum effects in the brain: A review. AVS Quantum Science, 2020, 2, .	4.9	38
47	Quantum description of Einstein's Brownian motion. Physical Review E, 2005, 71, 046134.	2.1	37
48	Realizing long-term quantum cryptography. Journal of the Optical Society of America B: Optical Physics, 2010, 27, A185.	2.1	37
49	Quantum walks on graphs representing the firing patterns of a quantum neural network. Physical Review A, 2014, 89, .	2.5	36
50	Digital quantum simulation of many-body non-Markovian dynamics. Physical Review A, 2016, 94, .	2.5	35
51	The theory of the quantum kernel-based binary classifier. Physics Letters, Section A: General, Atomic and Solid State Physics, 2020, 384, 126422.	2.1	35
52	Efficiency of open quantum walk implementation of dissipative quantum computing algorithms. Quantum Information Processing, 2012, 11, 1301-1309.	2.2	34
53	Non-Markovian quantum repeated interactions and measurements. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 425304.	2.1	33
54	Apparent temperature: demystifying the relation between quantum coherence, correlations, and heat flows. Quantum Science and Technology, 2019, 4, 025005.	5.8	33

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55	Stochastic simulation of the transducin GTPase cycle. Biophysical Journal, 1996, 71, 3051-3063.	0.5	32
56	Numerical integration methods for stochastic wave function equations. Computer Physics Communications, 2000, 132, 30-43.	7.5	32
57	Dissipative preparation of large$W$ states in optical cavities. Physical Review A, 2013, 87, .	2.5	32
58	Non-Markovian dynamics of an interacting qubit pair coupled to two independent bosonic baths. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 485301.	2.1	30
59	Rheological properties of network models with configuration-dependent creation and loss rates. Rheologica Acta, 1988, 27, 557-560.	2.4	29
60	Effects of disorder in pattern formation. Physical Review E, 1993, 48, 2699-2703.	2.1	29
61	Non-Markovian dynamics in pulsed- and continuous-wave atom lasers. Physical Review A, 1999, 60, 3188-3196.	2.5	29
62	Energetic and entropic effects of bath-induced coherences. Physical Review A, 2019, 99, .	2.5	29
63	A comparison of various classical optimizers for a variational quantum linear solver. Quantum Information Processing, 2021, 20, 1.	2.2	28
64	Initial correlation in a system of a spin coupled to a spin bath through an intermediate spin. Physical Review A, 2012, 86, .	2.5	27
65	Resummation for Nonequilibrium Perturbation Theory and Application to Open Quantum Lattices. Physical Review X, 2016, 6, .	8.9	27
66	Generalized theory of pseudomodes for exact descriptions of non-Markovian quantum processes. Physical Review Research, 2020, 2, .	3.6	27
67	Stochastic Schrödinger equations with coloured noise. Europhysics Letters, 2010, 91, 24001.	2.0	25
68	Simulation of single-qubit open quantum systems. Physical Review A, 2014, 90, .	2.5	25
69	Collective heat capacity for quantum thermometry and quantum engine enhancements. New Journal of Physics, 2020, 22, 083049.	2.9	25
70	Stochastic wave-function unraveling of the generalized Lindblad master equation. Physical Review A, 2009, 79, .	2.5	24
71	Numerical and analytical approach to the quantum dynamics of two coupled spins in bosonic baths. Physical Review A, 2009, 80, .	2.5	24
72	Stochastic wave-function approach to the calculation of multitime correlation functions of open quantum systems. Physical Review A, 1997, 56, 2334-2351.	2.5	23

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73	Roles of quantum coherences in thermal machines. European Physical Journal: Special Topics, 2021, 230, 841-850.	2.6	23
74	A stochastic approach to complex chemical reactions. Chemical Physics Letters, 1992, 190, 199-201.	2.6	22
75	Decoherence-assisted transport in quantum networks. New Journal of Physics, 2013, 15, 013038.	2.9	22
76	Convex combinations of Pauli semigroups: Geometry, measure, and an application. Physical Review A, 2020, 101, .	2.5	21
77	Rheological properties of polymer dumbbell models with configuration€dependent anisotropic friction. Journal of Chemical Physics, 1988, 89, 2412-2418.	3.0	20
78	Stochastic wave-function method versus density matrix: a numerical comparison. Computer Physics Communications, 1997, 104, 46-58.	7.5	20
79	Non-equilibrium thermal entanglement for a three spin chain. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 3157-3166.	2.1	20
80	A master equation description of fluctuating hydrodynamics. Physica A: Statistical Mechanics and Its Applications, 1993, 192, 569-588.	2.6	19
81	Open Quantum Walks: a short introduction. Journal of Physics: Conference Series, 2013, 442, 012003.	0.4	18
82	Convex combinations of CP-divisible Pauli channels that are not semigroups. Physics Letters, Section A: General, Atomic and Solid State Physics, 2020, 384, 126907.	2.1	18
83	Heat flow reversals without reversing the arrow of time: The role of internal quantum coherences and correlations. Physical Review Research, 2019, 1, .	3.6	18
84	Thermodynamics from indistinguishability: Mitigating and amplifying the effects of the bath. Physical Review Research, 2019, 1, .	3.6	18
85	Consistently averaged hydrodynamic interaction for dumbbell models in elongational flow. Journal of Chemical Physics, 1986, 85, 1672-1675.	3.0	17
86	Quantum trajectories: Memory and continuous observation. Physical Review A, 2012, 86, .	2.5	17
87	A quantum protective mechanism in photosynthesis. Scientific Reports, 2015, 5, 8720.	3.3	17
88	An Invitation to Quantum Channels. Quanta, 2018, 7, 54.	0.9	17
89	Continuous time simulation of transient polymer network models. Journal of Chemical Physics, 1990, 92, 6322-6326.	3.0	16
90	Filtering schemes in the quantum-classical Liouville approach to nonadiabatic dynamics. Physical Review E, 2013, 88, 033301.	2.1	16

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91	Polarization-entangled photon generation using partial spatially coherent pump beam. Scientific Reports, 2017, 7, 12091.	3.3	16
92	Negative contributions to entropy production induced by quantum coherences. Physical Review A, 2020, 102, .	2.5	16
93	The flow of dilute polymer solutions in confined geometries: a consistent numerical approach. Journal of Non-Newtonian Fluid Mechanics, 1987, 25, 347-364.	2.4	15
94	A Consistent Numerical Analysis of the Tube Flow of Dilute Polymer Solutions. Journal of Rheology, 1988, 32, 1-21.	2.6	15
95	Burgers's turbulence model as a stochastic dynamical system: Master equation and simulation. Physical Review E, 1993, 47, 1803-1814.	2.1	15
96	A master equation investigation of coagulation reactions: Sol-gel transition. Macromolecular Theory and Simulations, 1994, 3, 585-599.	1.4	15
97	Relativistic formulation of quantum-state diffusion. Journal of Physics A, 1998, 31, 33-52.	1.6	15
98	Sampling of quantum dynamics at long time. Physical Review E, 2010, 81, 032101.	2.1	15
99	Monitoring the wave function by time continuous position measurement. New Journal of Physics, 2010, 12, 043038.	2.9	15
100	Experimental investigation of Markovian and non-Markovian channel addition. Physical Review A, 2020, 101, .	2.5	15
101	On quantum ensembles of quantum classifiers. Quantum Machine Intelligence, 2020, 2, 1.	4.8	15
102	Numerical integration of stochastic partial differential equations. Computer Physics Communications, 1993, 74, 303-315.	7.5	14
103	Stochastic dynamics of open quantum systems: Derivation of the differential Chapman-Kolmogorov equation. Physical Review E, 1995, 51, 4041-4054.	2.1	14
104	Finite-size key in the Bennett 1992 quantum-key-distribution protocol for Rényi entropies. Physical Review A, 2013, 88, .	2.5	14
105	Origin of orientation-dependent R_1 (=1/T_1) relaxation in white matter. Magnetic Resonance in Medicine, 2020, 84, 2713-2723.	3.0	14
106	A master equation approach to fluctuating hydrodynamics: Heat conduction. Physics Letters, Section A: General, Atomic and Solid State Physics, 1994, 185, 385-389.	2.1	13
107	Properties of open quantum walks on $\mathbb{Z}$. Physica Scripta, 2012, T151, 014077.	2.5	13
108	Dipolar induced spin-lattice relaxation in the myelin sheath: A molecular dynamics study. Scientific Reports, 2019, 9, 14813.	3.3	13

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109	Dynamics of sine-Gordon solitons under random perturbations: Weak additive large-scale white noise. Physical Review B, 1990, 41, 2139-2144.	3.2	12
110	Burger's model of turbulence as a stochastic process. Journal of Physics A, 1992, 25, L661-L667.	1.6	12
111	Survival of coherence for open quantum systems in thermal baths. Physical Review A, 2013, 88, .	2.5	12
112	Arbitrary spin in a spin bath: Exact dynamics and approximation techniques. Physical Review A, 2014, 89, .	2.5	12
113	Microscopic derivation of open quantum walks. Physical Review A, 2015, 92, .	2.5	12
114	Fibre-orientation dependent R1(=1/T1) relaxation in the brain: The role of susceptibility induced spin-lattice relaxation in the myelin water compartment. Journal of Magnetic Resonance, 2019, 300, 135-141.	2.1	12
115	Open quantum walks. European Physical Journal: Special Topics, 2019, 227, 1869-1883.	2.6	12
116	Formation of dialysis-free Kombucha-based bacterial nanocellulose embedded in a polypyrrole/PVA composite for bulk conductivity measurements. RSC Advances, 2020, 10, 27585-27597.	3.6	12
117	Quantum-enhanced analysis of discrete stochastic processes. Npj Quantum Information, 2021, 7, .	6.7	12
118	Simulation of one-dimensional noisy Hamiltonian systems and their application to particle storage rings. Zeitschrift FÃ¼r Physik C-Particles and Fields, 1994, 62, 63-73.	1.5	11
119	Stochastic Dynamics of Reduced Wave Functions and Continuous Measurement in Quantum Optics. , 1997, 45, 39-78.		11
120	Non-Markovian spectral broadening in interacting continuous-wave atom lasers. Europhysics Letters, 2001, 54, 14-20.	2.0	11
121	Quantum optical implementation of open quantum walks. International Journal of Quantum Information, 2014, 12, 1461010.	1.1	11
122	Nonequilibrium-thermodynamics approach to open quantum systems. Physical Review A, 2014, 90, .	2.5	11
123	Parallel quantum trajectories via forking for sampling without redundancy. New Journal of Physics, 2019, 21, 083024.	2.9	11
124	Influence of coincidence detection of a biphoton state through free-space atmospheric turbulence using a partially spatially coherent pump. Physical Review A, 2020, 102, .	2.5	11
125	A new model for polymer melts and concentrated solutions. Journal of Chemical Physics, 1991, 94, 1592-1602.	3.0	10
126	A stochastic approach to computational fluid dynamics. Continuum Mechanics and Thermodynamics, 1992, 4, 247-267.	2.2	10

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127	Stochastic simulation of long-time nonadiabatic dynamics. Physica Scripta, 2011, T143, 014024.	2.5	10
128	Reservoir for inverse-power-law decoherence of a qubit. Physical Review A, 2011, 83, .	2.5	10
129	Critical frequency control for arbitrarily slow decoherence of a qubit. Physical Review A, 2012, 85, .	2.5	10
130	Unsharp continuous measurement of a Bose-Einstein condensate: Full quantum state estimation and the transition to classicality. Physical Review A, 2012, 86, .	2.5	10
131	Dissipative preparation of generalized Bell states. Journal of Physics B: Atomic, Molecular and Optical Physics, 2013, 46, 104004.	1.5	10
132	Stochastic Schrödinger Equations for Markovian and non-Markovian Cases. Open Systems and Information Dynamics, 2014, 21, 1440008.	1.2	10
133	Finite-key-size security of the Phoenix-Barnett-Chefles 2000 quantum-key-distribution protocol. Physical Review A, 2014, 90, .	2.5	10
134	Quantum force estimation in arbitrary non-Markovian Gaussian baths. Physical Review A, 2016, 94, .	2.5	10
135	Probing Decoherence in Plasmonic Waveguides in the Quantum Regime. Physical Review Applied, 2018, 9, .	3.8	10
136	A stochastic formulation of Burgers' equation. Physics Letters, Section A: General, Atomic and Solid State Physics, 1992, 172, 49-55.	2.1	9
137	Stochastic simulations of high-Reynolds-number turbulence in two dimensions. Physical Review E, 1994, 50, 2795-2801.	2.1	9
138	Stochastic analysis and simulation of spin star systems. Physical Review E, 2007, 76, 016701.	2.1	9
139	Classical capacity of a qubit depolarizing channel with memory. Physical Review A, 2009, 79, .	2.5	9
140	An open quantum system approach to the radical pair mechanism. Scientific Reports, 2018, 8, 15719.	3.3	9
141	Twisted Silica Microstructured Optical Fiber with Equiangular Spiral Six-Ray Geometry. Fibers, 2021, 9, 27.	4.0	9
142	Integrating machine learning techniques in quantum communication to characterize the quantum channel. Journal of the Optical Society of America B: Optical Physics, 2019, 36, B116.	2.1	9
143	An empirical approach to non-Gaussian polymer network theories. Continuum Mechanics and Thermodynamics, 1989, 1, 97-111.	2.2	8
144	Quantum measurement and the transformation from quantum to classical probabilities. Physical Review A, 1996, 54, 1146-1153.	2.5	8

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145	Preparation and decoherence of superpositions of electromagnetic field states. European Physical Journal D, 2001, 14, 377-386.	1.3	8
146	A master equation approach to option pricing. Physica A: Statistical Mechanics and Its Applications, 2003, 319, 519-534.	2.6	8
147	Dynamics and non-equilibrium steady state in a system of coupled harmonic oscillators. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 1682-1692.	2.1	8
148	A master equation representation of two-dimensional turbulence. Journal of Physics A, 1993, 26, 7563-7582.	1.6	7
149	Measure of not-completely-positive qubit maps: The general case. Physical Review A, 2019, 100, .	2.5	7
150	Measure of positive and not completely positive single-qubit Pauli maps. Physical Review A, 2019, 99, .	2.5	7
151	Dynamical and thermodynamical approaches to open quantum systems. Scientific Reports, 2020, 10, 2607.	3.3	7
152	Compact quantum kernel-based binary classifier. Quantum Science and Technology, 2022, 7, 045007.	5.8	7
153	Quantitative rheological predictions of a transient network model of Lodgeâ€"Yamamoto type: Simple and multiaxial elongational flow. Journal of Rheology, 1992, 36, 1461-1476.	2.6	6
154	On a Liouville-master equation formulation of open quantum systems. European Physical Journal B, 1995, 98, 139-145.	1.5	6
155	Initial correlations effects on decoherence at zero temperature. Journal of Physics A, 2005, 38, 10203-10216.	1.6	6
156	Loss of coherence and dressing in QED. Physical Review A, 2006, 74, .	2.5	6
157	Exchange of information between system and environment: Facts and myths. Europhysics Letters, 2016, 113, 50001.	2.0	6
158	Learning with Quantum Models. Quantum Science and Technology, 2018, , 247-272.	2.6	6
159	Dynamics and thermalization in a simple mesoscopic fermionic bath. Physical Review A, 2019, 99, .	2.5	6
160	Decoherence. , 2007, , 219-280.		6
161	A Necessary Condition for the Security of Coherent-One-Way Quantum Key Distribution Protocol. Applied Mathematics and Information Sciences, 2014, 8, 2769-2773.	0.5	6
162	Dynamics of sine-Gordon solitons under random perturbations: Multiplicative large-scale white noise. Physical Review B, 1990, 41, 2145-2149.	3.2	5

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163	Continuous time simulation of the Doiâ€"Edwards model. Journal of Chemical Physics, 1990, 92, 6327-6331.	3.0	5
164	On the numerical integration of Burgers' equation by stochastic simulation methods. Computer Physics Communications, 1993, 77, 207-218.	7.5	5
165	Heisenberg picture operators in the stochastic wave function approach to open quantum systems. European Physical Journal D, 1998, 1, 9-13.	1.3	5
166	A Lorentz covariant stochastic wave function dynamics for open systems. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 242, 205-210.	2.1	5
167	NosÃ¨â€"Hoover dynamics in quantum phase space. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 355304.	2.1	5
168	Discontinuities in a damped quantum harmonic oscillator. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 285306.	2.1	5
169	Microscopic Derivation of Open Quantum Walk on Two-Node Graph. Open Systems and Information Dynamics, 2013, 20, 1340007.	1.2	5
170	Intercept-resend attack on six-state quantum key distribution over collective-rotation noise channels. Chinese Physics B, 2016, 25, 070303.	1.4	5
171	Dynamics of Quantum Correlations in a Qubit-Oscillator System Interacting via a Dissipative Bath. Open Systems and Information Dynamics, 2020, 27, 2050004.	1.2	5
172	Quantum Machine Learning. , 2016, , 1-10.		5
173	Quantum Machine Learning. , 2017, , 1034-1043.		5
174	Noninvertibility as a requirement for creating a semigroup under convex combinations of channels. Physical Review A, 2022, 105, .	2.5	5
175	Twisted Few-Mode Optical Fiber with Improved Height of Quasi-Step Refractive Index Profile. Sensors, 2022, 22, 3124.	3.8	5
176	Nonlinear dumbbell model for flexible polymers: dynamical phenomena. Journal of Non-Newtonian Fluid Mechanics, 1987, 22, 309-324.	2.4	4
177	An improved algorithm for the estimation of the mean first passage time of ordinary stochastic differential equations. Computer Physics Communications, 1993, 74, 247-255.	7.5	4
178	How to build master equations for complex systems. Continuum Mechanics and Thermodynamics, 1995, 7, 439-473.	2.2	4
179	Fast Monte Carlo algorithm for nonequilibrium systems. Physical Review E, 1996, 53, 4232-4235.	2.1	4
180	On a Fourier space master equation for Navier-Stokes turbulence. Zeitschrift FÃ¼r Physik B-Condensed Matter, 1997, 100, 461-468.	1.1	4

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181	Parametrizing Density Matrices for Composite Quantum Systems. Open Systems and Information Dynamics, 2008, 15, 397-408.	1.2	4
182	Density Matrices and Their Time Evolution. Open Systems and Information Dynamics, 2008, 15, 109-121.	1.2	4
183	Diffusion approximation of stochastic master equations with jumps. Journal of Mathematical Physics, 2009, 50, 122101.	1.1	4
184	Non-equilibrium thermal entanglement in a two-particle system. Physica Scripta, 2012, T151, 014017.	2.5	4
185	Critical frequency control in harmonic quantum Brownian motion. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 015304.	2.1	4
186	Fractional relaxations in photonic crystals. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 395304.	2.1	4
187	Microscopic derivation of open quantum Brownian motion: a particular example. Physica Scripta, 2015, T165, 014017.	2.5	4
188	The simulation of the non-Markovian behaviour of a two-level system. Physica A: Statistical Mechanics and Its Applications, 2016, 450, 395-402.	2.6	4
189	Minimalistic analytical approach to non-Markovian open quantum systems. Europhysics Letters, 2016, 113, 20004.	2.0	4
190	Instrumentation limitation on a polarization-based entangled photon source. Journal of the Optical Society of America B: Optical Physics, 2017, 34, 1084.	2.1	4
191	Lazy open quantum walks. Physical Review A, 2020, 102, .	2.5	4
192	Toward a quantum future for South Africa. AVS Quantum Science, 2021, 3, 040501.	4.9	4
193	Six-State Symmetric Quantum Key Distribution Protocol. Journal of Quantum Information Science, 2015, 05, 33-40.	0.4	4
194	Thermostochastics: Heat conduction and temperature fluctuations. Physica A: Statistical Mechanics and Its Applications, 1994, 209, 83-95.	2.6	3
195	Mesoscopic Modelling and Stochastic Simulations of Turbulent Flows. The IMA Volumes in Mathematics and Its Applications, 1996, , 261-291.	0.5	3
196	Hilbert space path integral representation for the reduced dynamics of matter in thermal radiation fields. Journal of Physics A, 1996, 29, 7837-7853.	1.6	3
197	Qubits in a random environment. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 8069-8080.	2.1	3
198	Exact treatment of linear difference equations with noncommutative coefficients. Mathematical Methods in the Applied Sciences, 2007, 30, 2147-2153.	2.3	3

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199	A necessary condition for the security of differential-phase-shift quantum key distribution. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 305302.	2.1	3
200	Designing Reservoirs for 1/t Decoherence of a Qubit. Open Systems and Information Dynamics, 2011, 18, 289-299.	1.2	3
201	Coherence in a dissipative two-level system. European Physical Journal D, 2014, 68, 1.	1.3	3
202	Anomalies in non-Markovian quantum dynamics. Journal of Physics B: Atomic, Molecular and Optical Physics, 2015, 48, 035202.	1.5	3
203	Non-reversal Open Quantum Walks. Open Systems and Information Dynamics, 2018, 25, 1850017.	1.2	3
204	Chaotic inflation: A numerical approach. Nuclear Physics B, 1991, 348, 390-404.	2.5	2
205	Heisenberg picture operators in the quantum-state diffusion model. Journal of Physics A, 1998, 31, L147-L151.	1.6	2
206	Non-equilibrium Monte Carlo simulation of decaying Navier–Stokes turbulence. Physics Letters, Section A: General, Atomic and Solid State Physics, 1999, 256, 147-152.	2.1	2
207	Stochastic unraveling of relativistic quantum measurements. , 1999, , 81-116.		2
208	Wave Packet Decoherence in Momentum Space. AIP Conference Proceedings, 2004, , .	0.4	2
209	Scaling of non-Markovian Monte Carlo wave-function methods. Physical Review E, 2005, 71, 056701.	2.1	2
210	Recent Findings From The Quantum Network in Durban. AIP Conference Proceedings, 2011, , .	0.4	2
211	Open System Approach to the Internal Dynamics of a Model Multilevel Molecule. Open Systems and Information Dynamics, 2012, 19, 1250011.	1.2	2
212	ARBITRARILY SLOW RELAXATIONS IN A SPIN-BOSON MODEL UNDER THE NONINTERACTING-BLIP APPROXIMATION. International Journal of Quantum Information, 2012, 10, 1241001.	1.1	2
213	Critical conditions protecting entanglement. European Physical Journal D, 2013, 67, 1.	1.3	2
214	Anomalies in Strongly Coupled Harmonic Quantum Brownian Motion. Open Systems and Information Dynamics, 2013, 20, 1350002.	1.2	2
215	Dissipative quantum computing with open quantum walks. , 2014, , .		2
216	Robustness and fragility of Markovian dynamics in a qubit dephasing channel. Physical Review A, 2017, 95, .	2.5	2

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217	Steadyâ€State control of open Quantum Brownian Motion. Fortschritte Der Physik, 2017, 65, 1600063.	4.4	2
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