List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Equilibrium and nonequilibrium description of negative temperature states in a one-dimensional lattice using a wave kinetic approach. Physical Review E, 2022, 105, 014206.	0.8	3
2	Time reversal symmetry for classical, non-relativistic quantum and spin systems in presence of magnetic fields. Annals of Physics, 2022, 441, 168853.	1.0	4
3	Jarzynski equality on work and free energy: Crystal indentation as a case study. Journal of Chemical Physics, 2022, 156, 114118.	1.2	2
4	Greenhouse gas emissions: A rapid submerge of the world. Chaos, 2022, 32, .	1.0	3
5	Jarzynski on work and free energy relations: The case of variable volume. AICHE Journal, 2021, 67, .	1.8	4
6	Fluctuation Relations for Dissipative Systems in Constant External Magnetic Field: Theory and Molecular Dynamics Simulations. Entropy, 2021, 23, 146.	1.1	6
7	Displacement autocorrelation functions for strong anomalous diffusion: A scaling form, universal behavior, and corrections to scaling. Physical Review Research, 2021, 3, .	1.3	8
8	Time-dependence of the effective temperatures of a two-dimensional Brownian gyrator with cold and hot components. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 105002.	0.7	6
9	Deterministic model of battery, uphill currents, and nonequilibrium phase transitions. Physical Review E, 2021, 103, 032119.	0.8	4
10	Hydrodynamic holes and Froude horizons: Circular shallow water profiles for astrophysical analogs. Physical Review Research, 2021, 3, .	1.3	1
11	Diffusion and escape from polygonal channels: extreme values and geometric effects. Journal of Statistical Mechanics: Theory and Experiment, 2021, 2021, 073208.	0.9	3
12	An exploration of fractal-based prognostic model and comparative analysis for second wave of COVID-19 diffusion. Nonlinear Dynamics, 2021, 106, 1375-1395.	2.7	35
13	Exact response theory and Kuramoto dynamics. Physica D: Nonlinear Phenomena, 2021, , 133076.	1.3	2
14	Introduction to Nonequilibrium Statistical Physics and Its Foundations. Soft and Biological Matter, 2021, , 1-82.	0.3	1
15	Deterministic reversible model of non-equilibrium phase transitions and stochastic counterpart. Journal of Physics A: Mathematical and Theoretical, 2020, 53, 305001.	0.7	5
16	Necessary and Sufficient Conditions for Time Reversal Symmetry in Presence of Magnetic Fields. Symmetry, 2020, 12, 1336.	1.1	8
17	Fluctuation relations for systems in a constant magnetic field. Physical Review E, 2020, 102, 030101.	0.8	8
18	Dissipation Function: Nonequilibrium Physics and Dynamical Systems. Entropy, 2020, 22, 835.	1.1	3

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19	Can India develop herd immunity against COVID-19?. European Physical Journal Plus, 2020, 135, 526.	1.2	43
20	Coexistence of Ballistic and Fourier Regimes in the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>β</mml:mi> Fermi-Pasta-Ulam-Tsingou Lattice. Physical Review Letters, 2020, 125, 024101.</mml:math 	2.9	13
21	Possible nonequilibrium imprint in the cosmic background at low frequencies. Physical Review Research, 2020, 2, .	1.3	10
22	Jump processes with deterministic and stochastic controls. Physical Review E, 2019, 100, 042133.	0.8	2
23	Heat flux in one-dimensional systems. Physical Review E, 2019, 100, 032139.	0.8	6
24	Transport in Quantum Multi-barrier Systems as Random Walks on a Lattice. Journal of Statistical Physics, 2019, 176, 692-709.	0.5	2
25	Temperature and correlations in 1-dimensional systems. European Physical Journal: Special Topics, 2019, 228, 129-142.	1.2	8
26	Equivalence of position–position auto-correlations in the Slicer Map and the Lévy–Lorentz gas. Nonlinearity, 2019, 32, 2302-2326.	0.6	5
27	O(N) Fluctuations and Lattice Distortions in 1-Dimensional Systems. Frontiers in Physics, 2019, 7, .	1.0	4
28	4-wave dynamics in kinetic wave turbulence. Physica D: Nonlinear Phenomena, 2018, 362, 24-59.	1.3	15
29	Quantum thermostatted disordered systems and sensitivity under compression. Physica A: Statistical Mechanics and Its Applications, 2018, 493, 370-383.	1.2	2
30	Self-excited and hidden attractors in a novel chaotic system with complicated multistability. European Physical Journal Plus, 2018, 133, 1.	1.2	57
31	Asymmetry relations and effective temperatures for biased Brownian gyrators. Physical Review E, 2018, 98, .	0.8	22
32	Microcanonical Entropy, Partitions of a Natural Number into Squares and the Bose–Einstein Gas in a Box. Entropy, 2018, 20, 645.	1.1	0
33	Dispersive graded entropy on computing dynamical complexity. Physica A: Statistical Mechanics and Its Applications, 2018, 508, 131-140.	1.2	8
34	Time reversal and symmetries of time correlation functions. Molecular Physics, 2018, 116, 3097-3103.	0.8	13
35	On the relevance of the maximum entropy principle in non-equilibrium statistical mechanics. European Physical Journal: Special Topics, 2017, 226, 2327-2343.	1.2	12
36	Optical complexity in external cavity semiconductor laser. Optics Communications, 2017, 387, 257-266.	1.0	17

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37	Wave-turbulence theory of four-wave nonlinear interactions. Physical Review E, 2017, 96, 021101.	0.8	13
38	Time-reversal symmetry for systems in a constant external magnetic field. Physical Review E, 2017, 96, 012160.	0.8	14
39	Nonequilibrium Langevin dynamics: A demonstration study of shear flow fluctuations in a simple fluid. Physical Review E, 2017, 96, 022125.	0.8	4
40	Quantum Correlations under Time Reversal and Incomplete Parity Transformations in the Presence of a Constant Magnetic Field. Symmetry, 2017, 9, 120.	1.1	4
41	Broken versus Non-Broken Time Reversal Symmetry: Irreversibility and Response. Symmetry, 2016, 8, 73.	1.1	6
42	t-mixing: from fluctuation relations to response and irreversibility in MD. Molecular Simulation, 2016, 42, 1135-1148.	0.9	3
43	Complexity in congestive heart failure: A time-frequency approach. Chaos, 2016, 26, 033105.	1.0	24
44	Langevin equation for systems with a preferred spatial direction. Physical Review E, 2016, 94, 032127.	0.8	9
45	A dynamical-systems interpretation of the dissipation function, T-mixing and their relation to thermodynamic relaxation. Journal of Physics A: Mathematical and Theoretical, 2016, 49, 154002.	0.7	10
46	On Typicality in Nonequilibrium Steady States. Journal of Statistical Physics, 2016, 164, 842-857.	0.5	19
47	Role of ergodicity in the transient Fluctuation Relation and a new relation for a dissipative non-chaotic map. Chaos, Solitons and Fractals, 2016, 83, 54-66.	2.5	2
48	Physical Ergodicity and Exact Response Relations for Low-dimensional Maps. Computational Methods in Science and Technology, 2016, 22, 71-85.	0.3	4
49	A simple non-chaotic map generating subdiffusive, diffusive, and superdiffusive dynamics. Chaos, 2015, 25, 073113.	1.0	12
50	Driven diffusion against electrostatic or effective energy barrier across <i>α</i> -hemolysin. Journal of Chemical Physics, 2015, 143, 154109.	1.2	12
51	Brownian Motion in Minkowski Space. Entropy, 2015, 17, 3581-3594.	1.1	3
52	Can complexity decrease in congestive heart failure?. Physica A: Statistical Mechanics and Its Applications, 2015, 439, 93-102.	1.2	41
53	Microscopic Models for Vibrations in Mechanical Systems Under Equilibrium and Non-equilibrium Conditions. Understanding Complex Systems, 2015, , 3-30.	0.3	0
54	Applicability of optimal protocols and the Jarzynski equality. Physica Scripta, 2014, 89, 048002.	1.2	6

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55	Time reversal symmetry in time-dependent correlation functions for systems in a constant magnetic field. Europhysics Letters, 2014, 108, 60004.	0.7	19
56	Bibliography on Small Systems: Nonequilibrium Phenomena and Anomalous Behavior. Communications in Theoretical Physics, 2014, 62, 631-633.	1.1	0
57	Sieving of H 2 and D 2 Through End-to-End Nanotubes. Communications in Theoretical Physics, 2014, 62, 541-549.	1.1	3
58	On the Foundations of Statistical Mechanics: Ergodicity, Many Degrees of Freedom and Inference. Communications in Theoretical Physics, 2014, 62, 469-475.	1.1	9
59	A Galilean Dialogue on the Levels of Reality. , 2014, , 1-19.		1
60	Reductionism, Emergence and Levels of Reality. , 2014, , .		64
61	Statistical distribution of bonding distances in a unidimensional solid. Physica A: Statistical Mechanics and Its Applications, 2014, 412, 19-31.	1.2	2
62	Thermal noise of mechanical oscillators in steady states with a heat flux. Physical Review E, 2014, 90, 032119.	0.8	3
63	Focus on some nonequilibrium issues. Chaos, Solitons and Fractals, 2014, 64, 2-15.	2.5	7
64	Fluctuation-Dissipation and Fluctuation Relations: From Equilibrium to Nonequilibrium and Back. Lecture Notes in Physics, 2014, , 93-133.	0.3	1
65	Fluctuation Relations in Small Systems: Exact Results from the Deterministic Approach. , 2013, , 83-114.		1
66	Current in a quantum driven thermostatted system with off-diagonal disorder. Physica A: Statistical Mechanics and Its Applications, 2013, 392, 2977-2987.	1.2	7
67	Time Reversibility, Correlation Decay and the Steady State Fluctuation Relation for Dissipation. Entropy, 2013, 15, 1503-1515.	1.1	13
68	Effects of breaking vibrational energy equipartition on measurements of temperature in macroscopic oscillators subject to heat flux. Journal of Statistical Mechanics: Theory and Experiment, 2013, 2013, P12003.	0.9	26
69	Reduction of Protein Networks Models by Passivity Preserving Projection. Communications in Theoretical Physics, 2013, 60, 247-257.	1.1	0
70	Fluctuations in quantum one-dimensional thermostatted systems with off-diagonal disorder. Journal of Statistical Mechanics: Theory and Experiment, 2013, 2013, P02009.	0.9	5
71	Decimation of Fast States and Weak Nodes: Topological Variation via Persistent Homology. Springer Proceedings in Complexity, 2013, , 295-301.	0.2	4
72	Fluctuation Relations and Nonequilibrium Response for Chaotic Dissipative Dynamics. Understanding Complex Systems, 2013, , 3-38.	0.3	1

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73	On Γ- andμ-space descriptions: Gibbs and Boltzmann entropies of symplectic coupled maps. Physica Scripta, 2012, 86, 058513.	1.2	7
74	Elasticity of mechanical oscillators in nonequilibrium steady states: Experimental, numerical, and theoretical results. Physical Review E, 2012, 85, 066605.	0.8	11
75	Fluctuation-dissipation relation for chaotic non-Hamiltonian systems. Journal of Statistical Mechanics: Theory and Experiment, 2012, 2012, L04002.	0.9	28
76	A mathematical proof of the zeroth "law―of thermodynamics and the nonlinear Fourier "law―for heat flow. Journal of Chemical Physics, 2012, 137, 194109.	1.2	14
77	Modulation of output power in the spatio-temporal analysis of a semi conductor laser. Optics Communications, 2012, 285, 1341-1346.	1.0	10
78	Multi-image encryption based on synchronization of chaotic lasers and iris authentication. Optics and Lasers in Engineering, 2012, 50, 950-957.	2.0	36
79	xmlns:xocs= http://www.elsevier.com/xml/xocs/dtd_xmlns:xs= http://www.w3.org/2001/XMLSchema xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd"	1.2	15
80	Addendum to "Spatiotemporal evolution in a (2+1) -dimensional chemotaxis model―[Physica A 391 (2012) Addendum to "Spatiotemporal evolution in a (2+1) -dimensional chemotaxis model―[Physica A 391 (2012) 107–112]. Physica A: Statistical Mechanics and Its Applications, 2012, 391, 4061-4062.	1.2	1
81	Equilibrium, fluctuation relations and transport for irreversible deterministic dynamics. Physica D: Nonlinear Phenomena, 2012, 241, 681-691.	1.3	20
82	Synchronization of time delayed semiconductor lasers and its applications in digital cryptography. Optics Communications, 2011, 284, 4623-4634.	1.0	29
83	Anomalies and absence of local equilibrium, and universality, in one-dimensional particles systems. Physical Review E, 2011, 83, 041115.	0.8	12
84	Synchronization of spatiotemporal semiconductor lasers and its application in color image encryption. Optics Communications, 2011, 284, 2278-2291.	1.0	43
85	Steady state fluctuation relations and time reversibility for non-smooth chaotic maps. Journal of Statistical Mechanics: Theory and Experiment, 2011, 2011, P04021.	0.9	10
86	One-dimensional models and thermomechanical properties of solids. Physical Review B, 2011, 84, .	1.1	9
87	Nonlinear Diffusion and Transient Osmosis. Communications in Theoretical Physics, 2011, 56, 352-366.	1.1	3
88	Entropy production and coarse graining in Markov processes. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P05015.	0.9	65
89	Spatiotemporal chaos and the dynamics of coupled Langmuir and ion-acoustic waves in plasmas. Physical Review E, 2010, 81, 046405.	0.8	14
90	Deterministic thermostats, theories of nonequilibrium systems and parallels with the ergodic condition. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 133001.	0.7	64

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91	RareNoise: non-equilibrium effects in detectors of gravitational waves. Classical and Quantum Gravity, 2010, 27, 084032.	1.5	13
92	The nonequilibrium Ehrenfest gas: A chaotic model with flat obstacles?. Chaos, 2009, 19, 013121.	1.0	24
93	Nonequilibrium Steady-State Fluctuations in Actively Cooled Resonators. Physical Review Letters, 2009, 103, 010601.	2.9	56
94	Harmonic damped oscillators with feedback: a Langevin study. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P10016.	0.9	9
95	Nonequilibrium work fluctuations in a driven Ising model. Physica A: Statistical Mechanics and Its Applications, 2009, 388, 2815-2820.	1.2	5
96	Boltzmann maps for networks of chemical reactions and the multi-stability problem. Networks and Heterogeneous Media, 2009, 4, 501-526.	0.5	1
97	Fluctuation–dissipation: Response theory in statistical physics. Physics Reports, 2008, 461, 111-195.	10.3	577
98	On the Fluctuation Relation for Nosé-Hoover Boundary Thermostated Systems. Journal of Statistical Physics, 2008, 133, 617-637.	0.5	8
99	Onset of diffusive behavior in confined transport systems. Chaos, 2008, 18, 013127.	1.0	31
100	Temporal asymmetry of fluctuations in nonequilibrium steady states: Links with correlation functions and nonlinear response. Journal of Chemical Physics, 2008, 128, 164515.	1.2	13
101	Fluctuations in nonequilibrium statistical mechanics: models, mathematical theory, physical mechanisms. Nonlinearity, 2007, 20, R1-R37.	0.6	83
102	Initial growth of Boltzmann entropy and chaos in a large assembly of weakly interacting systems. Physica A: Statistical Mechanics and Its Applications, 2007, 385, 170-184.	1.2	21
103	Temporal asymmetry of fluctuations in the nonequilibrium FPU model. Physica D: Nonlinear Phenomena, 2007, 228, 64-76.	1.3	8
104	The Steady State Fluctuation Relation for the Dissipation Function. Journal of Statistical Physics, 2007, 128, 1337-1363.	0.5	59
105	Asymmetric fluctuation–relaxation paths in FPU models. Physica A: Statistical Mechanics and Its Applications, 2006, 365, 229-234.	1.2	8
106	Maxwell-Jüttner distributions in relativistic molecular dynamics. European Physical Journal B, 2006, 50, 361-365.	0.6	12
107	Thermodynamics and complexity of simple transport phenomena. Journal of Physics A, 2006, 39, 1311-1338.	1.6	38
108	Relevance of initial and final conditions for the fluctuation relation in Markov processes. Journal of Statistical Mechanics: Theory and Experiment, 2006, 2006, P08010-P08010.	0.9	53

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109	Temporal asymmetry of fluctuations in nonequilibrium steady states. Journal of Chemical Physics, 2006, 124, 114109.	1.2	12
110	Application of the Gallavotti-Cohen fluctuation relation to thermostated steady states near equilibrium. Physical Review E, 2005, 71, 056120.	0.8	66
111	Coexistence of chaotic and non-chaotic states in the two-dimensional Gauss–Navier–Stokes dynamics. Physica D: Nonlinear Phenomena, 2004, 187, 358-369.	1.3	4
112	Current fluctuations in the nonequilibrium Lorentz gas. Physica A: Statistical Mechanics and Its Applications, 2004, 340, 274-282.	1.2	8
113	Lyapunov spectra and nonequilibrium ensembles equivalence in 2D fluid mechanics. Physica D: Nonlinear Phenomena, 2004, 187, 338-357.	1.3	40
114	Change in distribution function from periodic orbits. Physica D: Nonlinear Phenomena, 2004, 187, 377-382.	1.3	0
115	Large Fluctuations and Axiom-C Structures in Deterministically Thermostatted Systems. Open Systems and Information Dynamics, 2003, 10, 105-133.	0.5	17
116	On some derivations of Irreversible Thermodynamics from dynamical systems theory. Physica D: Nonlinear Phenomena, 2002, 168-169, 341-355.	1.3	22
117	Particles, maps and irreversible thermodynamics. Physica A: Statistical Mechanics and Its Applications, 2002, 306, 117-128.	1.2	20
118	Comments on the Entropy of Nonequilibrium Steady States. Journal of Statistical Physics, 2002, 109, 895-920.	0.5	33
119	Deterministic Thermostats and Flctuation Relations. Lecture Notes in Physics, 2002, , 35-61.	0.3	7
120	The Gallavotti–Cohen Fluctuation Theorem for a Nonchaotic Model. Journal of Statistical Physics, 2000, 99, 857-872.	0.5	36
121	Gibbs entropy and irreversible thermodynamics. Nonlinearity, 2000, 13, 1905-1924.	0.6	34
122	Comment on "Universal Relation between the Kolmogorov-Sinai Entropy and the Thermodynamical Entropy in Simple Liquids― Physical Review Letters, 2000, 84, 394-394.	2.9	8
123	Fluctuation theorems for entropy production in open systems. Physical Review E, 2000, 61, R4679-R4682.	0.8	21
124	Fluctuations in two-dimensional reversibly damped turbulence. Nonlinearity, 1999, 12, 1471-1487.	0.6	33
125	Definition of temperature in equilibrium and nonequilibrium systems. Physical Review E, 1999, 59, R5-R8.	0.8	48
126	Tests of the linear models in a new system approach in estimate theory. Mathematical and Computer Modelling, 1999, 30, 139-148.	2.0	0

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127	Conservative energy discretization of Boltzmann collision operator. Quarterly of Applied Mathematics, 1999, 57, 699-721.	0.5	6
128	Orbital measures in non-equilibrium statistical mechanics: the Onsager relations. Nonlinearity, 1998, 11, 1395-1406.	0.6	13
129	Note on phase space contraction and entropy production in thermostatted Hamiltonian systems. Chaos, 1998, 8, 357-365.	1.0	47
130	Dynamical ensembles in nonequilibrium statistical mechanics and their representations. Chaos, 1998, 8, 374-383.	1.0	4
131	Applications of periodic orbit theory toN-particle systems. Journal of Statistical Physics, 1997, 86, 991-1009.	0.5	16
132	Irreversibility, diffusion and multifractal measures in thermostatted systems. Chaos, Solitons and Fractals, 1997, 8, 783-792.	2.5	8
133	Recent results for the thermostatted Lorentz gas. Physica A: Statistical Mechanics and Its Applications, 1997, 240, 84-95.	1.2	12
134	Boltzmann-like kinetic models and Boltzmann maps. Mathematical and Computer Modelling, 1997, 25, 53-67.	2.0	1
135	Thermostatted N-particle systems and orbital measures. Physics Reports, 1997, 290, 173-181.	10.3	3
136	Equivalence of "nonequilibrium―ensembles for simple maps. Physica A: Statistical Mechanics and Its Applications, 1996, 233, 767-784.	1.2	12
137	MATHEMATICAL MODELS OF CHEMICALLY REACTING GASES. Mathematical Models and Methods in Applied Sciences, 1996, 06, 245-268.	1.7	1
138	Stationary nonequilibrium ensembles for thermostated systems. Physical Review E, 1996, 53, 2143-2153.	0.8	15
139	Patterns in a reaction - diffusion system, and statistical dynamics. Nonlinearity, 1996, 9, 819-843.	0.6	1
140	Chaos and Its Impact on the Foundations of Statistical Mechanics. Australian Journal of Physics, 1996, 49, 51.	0.6	7
141	The nonequilibrium Lorentz gas. Chaos, 1995, 5, 536-551.	1.0	53
142	A dynamical partition function for the Lorentz gas. Journal of Statistical Physics, 1995, 80, 35-43.	0.5	10
143	Conjugate pairing in the three-dimensional periodic Lorentz gas. Physical Review E, 1995, 52, R5746-R5748.	0.8	12
144	Long time behavior of â€~ã€~Xâ€led〙' reactions. Journal of Mathematical Physics, 1994, 35, 1778-1795.	0.5	1

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145	Breakdown of ergodic behavior in the Lorentz gas. Physical Review E, 1994, 50, 3416-3421.	0.8	17
146	Periodic orbit expansions for the Lorentz gas. Journal of Statistical Physics, 1994, 75, 553-584.	0.5	51
147	The statistical dynamics of the Brussellator. Open Systems and Information Dynamics, 1994, 2, 175-194.	0.5	2
148	Solutions of singular integral equations from gas dynamics and plasma physics. Journal of Statistical Physics, 1993, 70, 1297-1312.	0.5	5
149	Singular integral equations on the interval. Transport Theory and Statistical Physics, 1993, 22, 549-560.	0.4	4
150	Singular integral equations on closed contours—II. Transport Theory and Statistical Physics, 1993, 22, 723-731.	0.4	2
151	Autocatalytic reactions as dynamical systems on the interval. Journal of Mathematical Physics, 1993, 34, 5238-5251.	0.5	5
152	NONLINEAR BOLTZMANN MAPS IN CLASSICAL AND QUANTUM PROBABILITY. QP-PQ, Quantum Probability and White Noise Analysis, 1993, , 313-328.	0.1	0
153	A QUANTUM PROBABILITY THEORY FOR THE N -LEVEL ATOM. QP-PQ, Quantum Probability and White Noise Analysis, 1993, , 297-311.	0.1	0
154	Complex Chemical Reactions: A Probabilistic Approach. Nuclear Science and Engineering, 1992, 112, 392-403.	0.5	5
155	Chemical reactions as dynamical systems on the interval. Journal of Statistical Physics, 1992, 66, 1557-1574.	0.5	10
156	Collided-flux-expansion method for the transport of muonic deuterium in finite media. Physical Review A, 1991, 44, 1104-1109.	1.0	1