MÃ¡rio J De Oliveira

List of Publications by Year
in descending order

160	2,507	279701	233338
papers	citations	23 h-index	45 g-index

161	161	161	1263
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Dynamic phase transition in the kinetic Ising model under a time-dependent oscillating field. Physical Review A, 1990, 41, 4251-4254.	1.0	287
2	Lattice-gas model of multiple layer adsorption. Surface Science, 1978, 71, 687-694.	0.8	260
3	Entropy Production in Nonequilibrium Systems at Stationary States. Physical Review Letters, 2012, 108, 020601.	2.9	118
4	Entropy production in irreversible systems described by a Fokker-Planck equation. Physical Review E, 2010, 82, 021120.	0.8	105
5	Flux rectification in the quantum<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>X</mml:mi><mml:mi>X</mml:mi><mml:mi>Z</mml:mi><mml:m Physical Review E, 2014, 90, 042142.	0.8	92
6	Strange Attractor in the Ising Model with Competing Interactions on the Cayley Tree. Physical Review Letters, 1985, 54, 163-166.	2.9	73
7	Stochastic approach to equilibrium and nonequilibrium thermodynamics. Physical Review E, 2015, 91, 042140.	0.8	66
8	Stochastic Dynamics and Irreversibility. Graduate Texts in Physics, 2015, , .	0.1	60
9	Self-organization in a kinetic Ising model. Physical Review A, 1989, 40, 6643-6646.	1.0	55
10	Short-time dynamics of critical nonequilibrium spin models. Physical Review E, 1998, 58, 4242-4245.	0.8	52
11	Sandpiles with height restrictions. Physical Review E, 2002, 66, 016111.	0.8	45
12	On a variational procedure for obtaining the thermodynamic properties of statistical models. Physica Status Solidi (B): Basic Research, 1977, 83, 229-237.	0.7	44
13	Non-equilibrium Ising model with competing Glauber dynamics. Journal of Physics A, 1991, 24, 3677-3686.	1.6	44
14	Nonequilibrium Model for the Contact Process in an Ensemble of Constant Particle Number. Physical Review Letters, 2001, 86, 5643-5646.	2.9	37
15	Entropy production in linear Langevin systems. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 395001.	0.7	32
16	Reentrant isotropic-nematic transition in lyotropic liquid crystals. Physical Review A, 1986, 34, 3481-3482.	1.0	31
17	Susceptible-infected-recovered and susceptible-exposed-infected models. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 095005.	0.7	29
18	Anisotropic random sequential adsorption of dimers on a square lattice. Physical Review A, 1992, 46, 6294-6299.	1.0	27

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19	Fourier's law from a chain of coupled anharmonic oscillators under energy-conserving noise. Physical Review E, 2013, 87, 052126.	0.8	27
20	Nonequilibrium quantum chains under multisite Lindblad baths. Physical Review E, 2016, 94, 032139.	0.8	27
21	Hopf bifurcation in a leaky faucet experiment. Physical Review E, 1995, 52, 6896-6899.	0.8	26
22	Conserved lattice gas model with infinitely many absorbing states in one dimension. Physical Review E, 2005, 71, 016112.	0.8	26
23	Entropy of flexible chains placed on Bethe and Husimi lattices. Physical Review A, 1990, 42, 5955-5963.	1.0	24
24	Inferring statistical complexity in the dripping faucet experiment. Physica A: Statistical Mechanics and Its Applications, 1998, 257, 385-389.	1.2	24
25	Emergence of cooperation among interacting individuals. Physical Review E, 1999, 59, 6419-6421.	0.8	21
26	The Blume-Emery-Griffiths model on a Bethe lattice: bicritical line and re-entrant behaviour. Journal of Physics Condensed Matter, 1989, 1, 6887-6892.	0.7	20
27	Phase transition in conservative diffusive contact processes. Physical Review E, 2004, 70, 046131.	0.8	20
28	Fourier's law from a chain of coupled planar harmonic oscillators under energy-conserving noise. Physical Review E, 2014, 89, 022105.	0.8	20
29	Ising-Model Surface Tension Using Real-Space Renormalization-Group Methods. Physical Review Letters, 1978, 40, 977-980.	2.9	19
30	Extrapolated renormalization-group calculation of the surface tension in square-lattice Ising model. Physical Review B, 1981, 23, 1419-1430.	1.1	19
31	Generalized Lyapunov exponents for products of correlated random matrices. Physical Review E, 1996, 53, 2960-2963.	0.8	19
32	Role of noise in population dynamics cycles. Physical Review E, 2009, 79, 061128.	0.8	19
33	Linear Glauber model. Physical Review E, 2003, 67, 066101.	0.8	18
34	Phase diagram of the spin-1/2 Heisenberg antiferromagnet on a square lattice with nearest- and next-nearest-neighbor couplings. Physical Review B, 1991, 43, 6181-6183.	1.1	17
35	Irreversible models with Boltzmannâ€“Gibbs probability distribution and entropy production. Journal of Statistical Mechanics: Theory and Experiment, 2011, 2011, P12012.	0.9	17
36	Equilibrium Thermodynamics. Graduate Texts in Physics, 2013, , .	0.1	17

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37	Quantum Fokker-Planck-Kramers equation and entropy production. Physical Review E, 2016, 94, 012128.	0.8	17
38	Ground-state properties of the spin-1/2 antiferromagnetic Heisenberg model on a square lattice by a Monte Carlo method. Physical Review B, 1994, 49, 5983-5987.	1.1	16
39	Thermodynamic behavior of a polymer with interacting bonds on a square lattice. Physical Review E, 2001, 64, 051810.	0.8	16
40	Conserved contact process in one to five dimensions. Physical Review E, 2002, 66, 036115.	0.8	16
41	Glassy states in lattice models with many coexisting crystalline phases. Europhysics Letters, 2004, 65, 20-26.	0.7	16
42	Monte Carlo method for obtaining the ground-state properties of quantum spin systems. Physical Review B, 1996, 53, 668-673.	1.1	15
43	Equivalence of ensembles in creation-annihilation nonequilibrium models. Physical Review E, 2003, 67, 027104.	0.8	15
44	Renormalization group of the Domany-Kinzel cellular automaton. Physical Review E, 1997, 55, 4000-4004.	0.8	14
45	Contact process with long-range interactions: A study in the ensemble of constant particle number. Physical Review E, 2007, 76, 041103.	0.8	14
46	Thermal rectification in anharmonic chains under an energy-conserving noise. Physical Review E, 2015, 92, 062120.	0.8	13
47	Entropy of spin models by the Monte Carlo method. Physical Review B, 1995, 52, 3060-3062.	1.1	12
48	Stationary distribution of finite-size systems with absorbing states. Physical Review E, 2005, 72, 026130.	0.8	12
49	Canonical and microcanonical Monte Carlo simulations of lattice-gas mixtures. Journal of Chemical Physics, 2006, 125, 164509.	1.2	12
50	Time correlation function in systems with two coexisting biological species. Physical Review E, 2008, 77, 061909.	0.8	12
51	Critical discontinuous phase transition in the threshold contact process. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 135002.	0.7	12
52	Stochastic dynamics of dengue epidemics. Physical Review E, 2013, 87, 012709.	0.8	12
53	Ising spin glass in the Bethe approximation at zero temperature. Physica A: Statistical Mechanics and Its Applications, 1988, 148, 567-574.	1.2	11
54	Renormalization group of probabilistic cellular automata with one absorbing state. Physical Review E, 1997, 55, 6377-6383.	0.8	11

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55	Crystal vs. glass formation in lattice models with many coexisting ordered phases. Physica A: Statistical Mechanics and Its Applications, 2004, 342, 97-103.	1.2	11
56	Susceptibleâ€“infectedâ€“recovered model with recurrent infection. Physica A: Statistical Mechanics and Its Applications, 2017, 467, 21-29.	1.2	11
57	Fluctuation-dissipation theorem and the linear Glauber model. Physical Review E, 2006, 73, 056117.	0.8	10
58	Two versions of the threshold contact model in two dimensions. Computer Physics Communications, 2012, 183, 2001-2005.	3.0	10
59	The chimical potential as an ensemble average. Physics Letters, Section A: General, Atomic and Solid State Physics, 1982, 91, 234-236.	0.9	9
60	Microcanonical Monte Carlo simulation of lattice gas models. Physical Review E, 2003, 68, 066125.	0.8	9
61	An extinction-survival-type phase transition in the probabilistic cellular automatonp182â€“q200. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 155001.	0.7	9
62	Stochastic thermodynamics and entropy production of chemical reaction systems. Journal of Chemical Physics, 2018, 148, 224104.	1.2	9
63	Stochastic Approach to Epidemic Spreading. Brazilian Journal of Physics, 2020, 50, 832-843.	0.7	9
64	Chiral Potts model on a Cayley tree with complete and incomplete devil's staircase. Journal of Physics A, 1985, 18, L153-L157.	1.6	8
65	Ground-state properties of the spin-1/2 antiferromagnetic Heisenberg chain obtained by use of a Monte Carlo method. Physical Review B, 1993, 48, 6141-6143.	1.1	8
66	Resistance statistics in one-dimensional systems with correlated disorder. Physical Review B, 1997, 56, 251-259.	1.1	8
67	Monte Carlo simulation of the quantum transverse Ising model. Physica A: Statistical Mechanics and Its Applications, 1997, 238, 307-316.	1.2	8
68	Stationary Coverage of a Stochastic Adsorptionâ€“Desorption Process with Diffusional Relaxation. Journal of Statistical Physics, 1998, 92, 651-658.	0.5	8
69	Exact density profile of a stochastic reaction-diffusion process. Physical Review E, 1999, 60, 2563-2567.	0.8	8
70	Calcium dynamics on a stochastic reaction-diffusion lattice model. Physical Review E, 2006, 74, 061905.	0.8	8
71	Lattice model for biaxial and uniaxial nematic liquid crystals. Journal of Chemical Physics, 2016, 144, 194904.	1.2	8
72	Entropy production and heat capacity of systems under time-dependent oscillating temperature. Physical Review E, 2019, 99, 052131.	0.8	8

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73	Entropy production and heat transport in harmonic chains under time-dependent periodic drivings. Physical Review E, 2020, 101, 012132.	0.8	8
74	Creation-annihilation processes in the ensemble of constant particle number. Physical Review E, 2005, 72, 046137.	0.8	7
75	Mean-field approximations for the restricted solid-on-solid growth models. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 8205-8217.	0.7	7
76	Stochastic quantum thermodynamics, entropy production, and transport properties of a bosonic system. Physical Review E, 2018, 97, 012105.	0.8	7
77	A generalization of the augmented plane wave method: II. Journal of Physics C: Solid State Physics, 1975, 8, 992-999.	1.5	6
78	Field behaviour of the XY chiral model on a Cayley tree. Journal of Physics A, 1992, 25, 1405-1415.	1.6	6
79	GROUND-STATE PROPERTIES OF THE SPIN-1/2 ANTIFERROMAGNETIC HEISENBERG MODEL ON A CUBIC LATTICE BY A MONTE CARLO METHOD. Modern Physics Letters B, 1995, 09, 619-627.	1.0	6
80	Granular compaction, random sequential adsorption and diffusional relaxation. Journal of Physics A, 1998, 31, L425-L433.	1.6	6
81	THE TRANSVERSE ISING MODEL UNDER A TIME OSCILLATING FIELD. International Journal of Modern Physics B, 1999, 13, 207-214.	1.0	6
82	Glassy behaviour in short-range lattice models without quenched disorder. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2002, 82, 617-623.	0.6	6
83	Lattice model for calcium dynamics. Physical Review E, 2005, 71, 061910.	0.8	6
84	TEMPERATURE OF NONEQUILIBRIUM LATTICE SYSTEMS. International Journal of Modern Physics C, 2006, 17, 1703-1715.	0.8	6
85	Robustness of first-order phase transitions in one-dimensional long-range contact processes. Physical Review E, 2013, 87, 042101.	0.8	6
86	Landau theory for uniaxial nematic, biaxial nematic, uniaxial smectic-A, and biaxial smectic-A phases. Liquid Crystals, 2016, 43, 1230-1236.	0.9	6
87	Equilibrium Thermodynamics. Graduate Texts in Physics, 2017, , .	0.1	6
88	Critical properties of the contact process with quenched dilution. Journal of Statistical Mechanics: Theory and Experiment, 2017, 2017, 043209.	0.9	6
89	Graph optimization problems on a Bethe lattice. Journal of Statistical Physics, 1989, 54, 477-493.	0.5	5
90	Ground-state energy of a quantum chain with competing interactions. Journal of Statistical Physics, 1995, 79, 347-376.	0.5	5

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91	Perturbative series expansion for the subcritical stationary properties of the contact process. Journal of Physics A, 2006, 39, 11131-11144.	1.6	5
92	Fluctuation-dissipation relation for stochastic dynamics without detailed balance. Physical Review E, 2007, 76, 011114.	0.8	5
93	Numerical study of a model for nonequilibrium wetting. Physical Review E, 2008, 77, 011101.	0.8	5
94	Glassy states in the stochastic Potts model. Computer Physics Communications, 2009, 180, 480-484.	3.0	5
95	Critical properties of the susceptible-exposed-infected model on a square lattice. Journal of Statistical Mechanics: Theory and Experiment, 2015, 2015, P04014.	0.9	5
96	Heat transport along a chain of coupled quantum harmonic oscillators. Physical Review E, 2017, 95, 042113.	0.8	5
97	Analysis of earlier times and flux of entropy on the majority voter model with diffusion. Physical Review E, 2020, 101, 012130.	0.8	5
98	Epidemic spreading. Revista Brasileira De Ensino De Fisica, 0, 42, .	0.2	5
99	Classical and quantum stochastic thermodynamics. Revista Brasileira De Ensino De Fisica, 0, 42, .	0.2	5
100	Hole spectrum in the two-dimensional Hubbard model. Physica C: Superconductivity and Its Applications, 1990, 166, 206-214.	0.6	4
101	Inhomogeneous random sequential adsorption on bipartite lattices. Physical Review E, 1994, 50, 4523-4527.	0.8	4
102	Spontaneous staggered magnetization in antiferromagnetic Heisenberg-Ising chains. Physical Review B, 1996, 54, 6351-6355.	1.1	4
103	One-dimensional lattice gas models with infinitely many absorbing states. Brazilian Journal of Physics, 2006, 36, 218-221.	0.7	4
104	Soluble one-dimensional particle conservation models with infinitely many absorbing states. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 385004.	0.7	4
105	Aging and fluctuation-dissipation ratio in a nonequilibrium<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>q</mml:mi></mml:math>-state lattice model. Physical Review E, 2010, 82, 011133.	0.8	4
106	Critical behavior in lattice models with two symmetric absorbing states. Journal of Statistical Mechanics: Theory and Experiment, 2015, 2015, P01035.	0.9	4
107	Boltzmann stochastic thermodynamics. Physical Review E, 2019, 99, 052138.	0.8	4
108	Symmetry breaking of a spin glass on a Bethe lattice of infinite coordination. Physical Review B, 1987, 35, 2005-2007.	1.1	3

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109	Symmetry and universality in nonequilibrium models. Physica A: Statistical Mechanics and Its Applications, 2000, 283, 107-112.	1.2	3
110	Asymptotic behavior of the entropy of chains placed on cylinders. Physical Review E, 2007, 76, 031133.	0.8	3
111	The stochastic nature of predatorâ€“prey cycles. Computer Physics Communications, 2009, 180, 536-539.	3.0	3
112	Extending the use of canonical and microcanonical Monte Carlo algorithms to spin models. Computer Physics Communications, 2009, 180, 1434-1441.	3.0	3
113	Stochastic spatial structured model for vertically and horizontally transmitted infection. Physica A: Statistical Mechanics and Its Applications, 2017, 468, 131-138.	1.2	3
114	Landau theory for isotropic, nematic, smectic-A, and smectic-C phases. Liquid Crystals, 2020, 47, 99-105.	0.9	3
115	Quantum Langevin equation. Journal of Statistical Mechanics: Theory and Experiment, 2020, 2020, 023106.	0.9	3
116	Effect of Immunization Through Vaccination on Deterministic Models for Epidemic Spreading. Brazilian Journal of Physics, 0, , 1.	0.7	3
117	Nonequilibrium stationary state of a harmonic chain under a temperature gradient and energy conserving bulk noise. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 335001.	0.7	3
118	Stochastic mechanics of nonequilibrium systems. Brazilian Journal of Physics, 1997, 27, 525-532.	0.7	3
119	Potts glass on the Bethe lattice. Physical Review B, 1987, 35, 8744-8746.	1.1	2
120	Ising spin glass in a field zero temperature in the Bethe approximation. Physica A: Statistical Mechanics and Its Applications, 1988, 150, 614-626.	1.2	2
121	NUMERICAL STOCHASTIC METHODS IN STATISTICAL MECHANICS. International Journal of Modern Physics B, 1996, 10, 1313-1327.	1.0	2
122	Entropy and Pressure of Attractive Hard Squares by the Monte Carlo Method. Modern Physics Letters B, 1997, 11, 571-577.	1.0	2
123	Nonclassical critical exponents out of mean-field results. Physica A: Statistical Mechanics and Its Applications, 1998, 260, 99-105.	1.2	2
124	Kosterlitz-Thouless transition in a quantum spin-1 Heisenberg chain. Physical Review B, 1999, 59, 3303-3305.	1.1	2
125	Perturbative series expansion for the gap of the evolution operator associated with the contact process. Physical Review E, 2006, 74, 041121.	0.8	2
126	Conservative ensembles for nonequilibrium lattice-gas systems. European Physical Journal B, 2008, 64, 409-414.	0.6	2

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127	Aging and stationary properties of non-equilibrium symmetrical three-state models. Journal of Statistical Mechanics: Theory and Experiment, 2011, 2011, P02018.	0.9	2
128	Exact correlation functions in particle-reaction models with immobile particles. Journal of Statistical Mechanics: Theory and Experiment, 2012, 2012, P11006.	0.9	2
129	Thermal conductance of a two-level atom coupled to two quantum harmonic oscillators. Physical Review E, 2017, 95, 042108.	0.8	2
130	Complex heat capacity and entropy production of temperature modulated systems. Journal of Statistical Mechanics: Theory and Experiment, 2019, 2019, 073204.	0.9	2
131	Stochastic thermodynamics of systems with a continuous space of states. Physical Review E, 2020, 102, 032114.	0.8	2
132	Structure of the Scientific Theories. Revista Brasileira De Ensino De Fisica, 0, 43, .	0.2	2
133	Stochastic dynamics of coupled systems and damage spreading. Brazilian Journal of Physics, 2003, 33, 458-463.	0.7	2
134	Phenomenological renormalization-group calculations for 12- and 16-vertex models on a square lattice. Physical Review B, 1984, 30, 5326-5333.	1.1	1
135	Coupling constants for stochastic spin systems. Physica A: Statistical Mechanics and Its Applications, 1994, 203, 13-23.	1.2	1
136	Revisiting the one-dimensional diffusive contact process. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, P08009-P08009.	0.9	1
137	Irreversible spherical model and its stationary entropy production rate. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 165003.	0.7	1
138	Entropy production for asymmetric diffusion of particles. Journal of Statistical Mechanics: Theory and Experiment, 2015, 2015, P12004.	0.9	1
139	Type-dependent irreversible stochastic spin models for genetic regulatory networks at the level of promotionâ€“inhibition circuitry. Physica A: Statistical Mechanics and Its Applications, 2015, 440, 33-41.	1.2	1
140	Elementary Concepts and Fundamental Laws of the Theory of Heat. Brazilian Journal of Physics, 2018, 48, 299-313.	0.7	1
141	Ordering of rods near planar and curved surfaces. AIP Advances, 2018, 8, 015216.	0.6	1
142	Molecular model for nematic, smectic- <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>A</mml:mi></mml:math> , and smectic- <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>C</mml:mi></mml:math> liquid crystals. Physical Review E, 2020, 102, 052701.	0.8	1
143	Dependence of the crossover exponent with the diffusion rate in the generalized contact process model. Brazilian Journal of Physics, 2008, 38, 94-97.	0.7	1
144	Equipartition of energy, Avogadro law and ratio of specific heats. Revista Brasileira De Ensino De Fisica, 2019, 41, .	0.2	1

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145	Parametric Invariance. Brazilian Journal of Physics, 2022, 52, 1.	0.7	1
146	Stability of the dilute Ising spin glass on a Bethe lattice. Physica A: Statistical Mechanics and Its Applications, 1990, 169, 317-323.	1.2	0
147	Equilibrium polymerization with a free surface. Journal of Physics A, 1992, 25, 561-575.	1.6	0
148	Dilute spin glass with finite connectivity. Physica A: Statistical Mechanics and Its Applications, 1992, 187, 112-125.	1.2	0
149	Density of States and Localization Lengths in One-dimensional Linear Chains. International Journal of Modern Physics B, 1997, 11, 2195-2205.	1.0	0
150	Stochastic resonance in interacting systems. Physica A: Statistical Mechanics and Its Applications, 1998, 259, 43-48.	1.2	0
151	Lattice boson systems with a finite maximum number of bosons in a site. Physical Review B, 1998, 57, 116-119.	1.1	0
152	Continuous time stochastic models for vehicular traffic on highways. Brazilian Journal of Physics, 2004, 34, 373.	0.7	0
153	A comparative study for the pair-creation contact process using series expansions. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 4305-4315.	0.7	0
154	An asymmetric sandpile model with height restriction. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 385003.	0.7	0
155	The two parts of the second law of thermodynamics. Revista Brasileira De Ensino De Fisica, 2019, 41, .	0.2	0
156	Positive heat capacity in the microcanonical ensemble. Physica A: Statistical Mechanics and Its Applications, 2020, 554, 124698.	1.2	0
157	Structure of the analytical physical theories. Revista Brasileira De Ensino De Fisica, 0, 43, .	0.2	0
158	Exact and inexact differentials in the early development of mechanics and thermodynamics. Revista Brasileira De Ensino De Fisica, 0, 42, .	0.2	0
159	Structure of the analytical theories of heat. Revista Brasileira De Ensino De Fisica, 0, 44, .	0.2	0
160	Structure of the theories of probability. Revista Brasileira De Ensino De Fisica, 0, 44, .	0.2	0