

Christian Maes

List of Publications by Year in descending order

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162
papers

4,596
citations

125106

35
h-index

139680

61
g-index

163
all docs

163
docs citations

163
times ranked

1792
citing authors

#	ARTICLE	IF	CITATIONS
1	Inducing a bound state between active particles. <i>Physical Review E</i> , 2022, 105, 044605.	0.8	1
2	Diffraction and interference with run-and-tumble particles. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2022, , 127323.	1.2	3
3	Statistical Mechanical Foundation of Weberâ€™Fechner Laws. <i>Journal of Statistical Physics</i> , 2021, 182, 1.	0.5	2
4	Pushing run-and-tumble particles through a rugged channel. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2021, 2021, 033206.	0.9	4
5	Wave mechanics for gravity with point-particles. <i>Classical and Quantum Gravity</i> , 2021, 38, 175003.	1.5	0
6	On the derivation of the Kompaneets equation. <i>Astroparticle Physics</i> , 2021, 133, 102644.	1.9	6
7	Active gating: rocking diffusion channels. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2021, 54, 025004.	0.7	3
8	Fluctuation symmetry leads to GENERIC equations with non-quadratic dissipation. <i>Stochastic Processes and Their Applications</i> , 2020, 130, 139-170.	0.4	14
9	Glassy States: The Free Ising Model on a Tree. <i>Journal of Statistical Physics</i> , 2020, 180, 227-237.	0.5	6
10	Producing suprathermal tails in the stationary velocity distribution. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2020, 552, 122179.	1.2	8
11	Response Theory: A Trajectory-Based Approach. <i>Frontiers in Physics</i> , 2020, 8, .	1.0	28
12	Fluctuating Motion in an Active Environment. <i>Physical Review Letters</i> , 2020, 125, 208001.	2.9	28
13	Active velocity processes with suprathermal stationary distributions and long-time tails. <i>Physical Review E</i> , 2020, 101, 062130.	0.8	4
14	Cosmic acceleration from quantum Friedmann equations. <i>Classical and Quantum Gravity</i> , 2020, 37, 085006.	1.5	4
15	Frenesy: Time-symmetric dynamical activity in nonequilibria. <i>Physics Reports</i> , 2020, 850, 1-33.	10.3	72
16	Possible nonequilibrium imprint in the cosmic background at low frequencies. <i>Physical Review Research</i> , 2020, 2, .	1.3	10
17	Nonequilibrium Relaxation and Pattern Formation. <i>Moscow Mathematical Journal</i> , 2020, 20, 741-747.	0.2	1
18	Nonequilibrium corrections to gradient flow. <i>Chaos</i> , 2019, 29, 073109.	1.0	5

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19	The asymptotic speed of reaction fronts in active reaction-diffusion systems. Journal of Physics A: Mathematical and Theoretical, 2019, 52, 245001.	0.7	4
20	Nonequilibrium calorimetry. Journal of Statistical Mechanics: Theory and Experiment, 2019, 2019, 114004.	0.9	10
21	Deriving GENERIC from a Generalized Fluctuation Symmetry. Journal of Statistical Physics, 2018, 170, 492-508.	0.5	14
22	Active processes in one dimension. Physical Review E, 2018, 97, 032604.	0.8	53
23	Non-Dissipative Effects in Nonequilibrium Systems. SpringerBriefs in Complexity, 2018, , .	0.1	26
24	Stabilization in the Eye of a Cyclone. Annales Henri Poincare, 2018, 19, 2673-2699.	0.8	0
25	Life efficiency does not always increase with the dissipation rate. Journal of Physics Communications, 2018, 2, 045017.	0.5	22
26	Death and Resurrection of a Current by Disorder, Interaction or Periodic Driving. Journal of Statistical Physics, 2018, 173, 99-119.	0.5	4
27	Nonequilibrium Physics Aspects of Probabilistic Cellular Automata. Emergence, Complexity and Computation, 2018, , 119-128.	0.2	0
28	The modified Langevin description for probes in a nonlinear medium. Journal of Physics Condensed Matter, 2017, 29, 064004.	0.7	21
29	Frenetic Bounds on the Entropy Production. Physical Review Letters, 2017, 119, 160601.	2.9	49
30	From dynamical systems to statistical mechanics: the case of the fluctuation theorem. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 381001.	0.7	9
31	The induced motion of a probe coupled to a bath with random resets. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 415001.	0.7	16
32	Midpoint Distribution of Directed Polymers in the Stationary Regime: Exact Result Through Linear Response. Journal of Statistical Physics, 2017, 168, 937-963.	0.5	7
33	Activity induced first order transition for the current in a disordered medium. Condensed Matter Physics, 2017, 20, 33002.	0.3	2
34	What decides the direction of a current?. Mathematics and Mechanics of Complex Systems, 2016, 4, 275-295.	0.5	4
35	Driving-induced stability with long-range effects. Europhysics Letters, 2016, 115, 30007.	0.7	5
36	Mathematical model suitable for efficient simulation of thin semi-flexible polymers in complex environments. Soft Matter, 2016, 12, 3360-3387.	1.2	5

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37	How Statistical Forces Depend on the Thermodynamics and Kinetics of Driven Media. <i>Physical Review Letters</i> , 2015, 114, 250601.	2.9	20
38	Nonequilibrium Response and Frenesy. <i>Journal of Physics: Conference Series</i> , 2015, 638, 012001.	0.3	21
39	Locality and nonlocality of classical restrictions of quantum spin systems with applications to quantum large deviations and entanglement. <i>Journal of Mathematical Physics</i> , 2015, 56, .	0.5	6
40	Statistical forces from close-to-equilibrium media. <i>New Journal of Physics</i> , 2015, 17, 115006.	1.2	13
41	Friction and noise for a probe in a nonequilibrium fluid. <i>Physical Review E</i> , 2015, 91, 022128.	0.8	31
42	On the kinetics that moves Myosin V. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2015, 436, 678-685.	1.2	4
43	Frenetic aspects of second order response. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 6653-6666.	1.3	37
44	Revisiting the Glansdorff-Prigogine Criterion for Stability Within Irreversible Thermodynamics. <i>Journal of Statistical Physics</i> , 2015, 159, 1286-1299.	0.5	18
45	No information or horizon paradoxes for Th. Smiths. <i>European Physical Journal Plus</i> , 2015, 130, 1.	1.2	0
46	Thermal response in driven diffusive systems. <i>European Physical Journal B</i> , 2014, 87, 1.	0.6	8
47	Active fluctuation symmetries. <i>New Journal of Physics</i> , 2014, 16, 015019.	1.2	7
48	Low temperature behavior of nonequilibrium multilevel systems. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2014, 47, 035002.	0.7	10
49	Linear response in the nonequilibrium zero range process. <i>Chaos, Solitons and Fractals</i> , 2014, 64, 78-87.	2.5	3
50	On the Second Fluctuation-Dissipation Theorem for Nonequilibrium Baths. <i>Journal of Statistical Physics</i> , 2014, 154, 705-722.	0.5	46
51	A Nonequilibrium Extension of the Clausius Heat Theorem. <i>Journal of Statistical Physics</i> , 2014, 154, 188-203.	0.5	44
52	Mobility transition in a dynamic environment. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2014, 47, 255003.	0.7	24
53	From Langevin to generalized Langevin equations for the nonequilibrium Rouse model. <i>Physical Review E</i> , 2013, 87, 022145.	0.8	15
54	A Low Temperature Analysis of the Boundary Driven Kawasaki Process. <i>Journal of Statistical Physics</i> , 2013, 153, 991-1007.	0.5	3

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55	Fluctuation-response relations for nonequilibrium diffusions with memory. <i>Physical Review E</i> , 2013, 87, 022125.	0.8	35
56	Heat Bounds and the Blowtorch Theorem. <i>Annales Henri Poincare</i> , 2013, 14, 1193-1202.	0.8	15
57	An update on the nonequilibrium linear response. <i>New Journal of Physics</i> , 2013, 15, 013004.	1.2	106
58	Probing active forces via a fluctuation-dissipation relation: Application to living cells. <i>Europhysics Letters</i> , 2013, 102, 50005.	0.7	38
59	Frenetic origin of negative differential response. <i>Physical Review E</i> , 2013, 88, 052109.	0.8	44
60	Minimum entropy production principle. <i>Scholarpedia Journal</i> , 2013, 8, 9664.	0.3	7
61	Monotonicity of the dynamical activity. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2012, 45, 455001.	0.7	6
62	Nonequilibrium entropies. <i>Physica Scripta</i> , 2012, 86, 058509.	1.2	12
63	Saturation of front propagation in a reaction diffusion process describing plasma damage in porous low- k materials. <i>Physical Review B</i> , 2011, 83, ..	1.1	4
64	The modified Sutherland-Einstein relation for diffusive non-equilibria. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2011, 467, 2792-2809.	1.0	35
65	A meaningful expansion around detailed balance. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2011, 44, 095001.	0.7	45
66	Rotating States in Driven Clock- and XY-Models. <i>Journal of Statistical Physics</i> , 2011, 144, 1238-1246.	0.5	10
67	Diffusive Behavior for Randomly Kicked Newtonian Particles in a Spatially Periodic Medium. <i>Communications in Mathematical Physics</i> , 2011, 301, 229-283.	1.0	2
68	Integrated diffusion-recombination model for describing the logarithmic time dependence of plasma damage in porous low- k materials. <i>Microelectronic Engineering</i> , 2011, 88, 631-634.	1.1	14
69	Heat capacity in nonequilibrium steady states. <i>Europhysics Letters</i> , 2011, 96, 40001.	0.7	34
70	Diffusive behavior from a quantum master equation. <i>Journal of Mathematical Physics</i> , 2011, 52, 083303.	0.5	1
71	Monotonic Return to Steady Nonequilibrium. <i>Physical Review Letters</i> , 2011, 107, 010601.	2.9	26
72	Fluctuations and response in a non-equilibrium micron-sized system. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2011, 2011, P01008.	0.9	27

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73	Archimedes's law and its corrections for an active particle in a granular sea. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2011, 44, 285001.	0.7	3
74	Nonequilibrium Linear Response for Markov Dynamics, II: Inertial Dynamics. <i>Journal of Statistical Physics</i> , 2010, 139, 492-505.	0.5	56
75	A NOTE ON THE NON-COMMUTATIVE LAPLACE- VARADHAN INTEGRAL LEMMA. <i>Reviews in Mathematical Physics</i> , 2010, 22, 839-858.	0.7	5
76	Fluctuations and Response Out-of-Equilibrium. <i>Progress of Theoretical Physics Supplement</i> , 2010, 184, 318-328.	0.2	3
77	General no-go condition for stochastic pumping. <i>Journal of Chemical Physics</i> , 2010, 132, 234116.	1.2	25
78	Rigorous meaning of McLennan ensembles. <i>Journal of Mathematical Physics</i> , 2010, 51, .	0.5	44
79	Dynamical fluctuations for semi-Markov processes. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2009, 42, 365002.	0.7	38
80	Computation of Current Cumulants for Small Nonequilibrium Systems. <i>Journal of Statistical Physics</i> , 2009, 135, 57-75.	0.5	28
81	Nonequilibrium Linear Response for Markov Dynamics, I: Jump Processes and Overdamped Diffusions. <i>Journal of Statistical Physics</i> , 2009, 137, 1094-1116.	0.5	101
82	Nonequilibrium relation between potential and stationary distribution for driven diffusion. <i>Physical Review E</i> , 2009, 80, 011121.	0.8	14
83	Fluctuations and Response of Nonequilibrium States. <i>Physical Review Letters</i> , 2009, 103, 010602.	2.9	256
84	Exact computation of current cumulants in small Markovian systems. , 2009, , .		0
85	A Selection of Nonequilibrium Issues. <i>Lecture Notes in Mathematics</i> , 2009, , 1-60.	0.1	10
86	Steady state statistics of driven diffusions. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2008, 387, 2675-2689.	1.2	107
87	Fluctuations of Quantum Currents and Unravelings of Master Equations. <i>Journal of Statistical Physics</i> , 2008, 131, 341-356.	0.5	46
88	Correlated flares in models of a magnetized oceanopy. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2008, 387, 167-176.	1.2	5
89	Canonical structure of dynamical fluctuations in mesoscopic nonequilibrium steady states. <i>Europhysics Letters</i> , 2008, 82, 30003.	0.7	135
90	Amplification of compressional magnetohydrodynamic waves in systems with forced entropy oscillations. <i>Physical Review E</i> , 2007, 76, 046404.	0.8	10

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91	Minimum entropy production principle from a dynamical fluctuation law. Journal of Mathematical Physics, 2007, 48, 053306.	0.5	44
92	Symmetries of the ratchet current. Physical Review E, 2007, 76, 051117.	0.8	20
93	Second Law of Thermodynamics for Macroscopic Mechanics Coupled to Thermodynamic Degrees of Freedom. Letters in Mathematical Physics, 2007, 79, 251-261.	0.5	13
94	Freezing Transitions in Non-Fellerian Particle Systems. Journal of Statistical Physics, 2007, 127, 171-189.	0.5	0
95	On the Validity of Entropy Production Principles for Linear Electrical Circuits. Journal of Statistical Physics, 2007, 129, 725-740.	0.5	29
96	Static and dynamical nonequilibrium fluctuations. Comptes Rendus Physique, 2007, 8, 591-597.	0.3	10
97	Realistic time correlations in sandpiles. Europhysics Letters, 2006, 75, 413-419.	0.7	12
98	H-Theorems from Macroscopic Autonomous Equations. Journal of Statistical Physics, 2006, 123, 571-584.	0.5	16
99	Course 13 Elements of nonequilibrium statistical mechanics. Les Houches Summer School Proceedings, 2006, 83, 607-655.	0.2	1
100	Time-Symmetric Fluctuations in Nonequilibrium Systems. Physical Review Letters, 2006, 96, 240601.	2.9	42
101	Quantum macrostates, equivalence of ensembles, and an H-theorem. Journal of Mathematical Physics, 2006, 47, 073303.	0.5	19
102	Fluctuation symmetries for work and heat. Physical Review E, 2006, 74, 021111.	0.8	47
103	STEADY STATE FLUCTUATIONS OF THE DISSIPATED HEAT FOR A QUANTUM STOCHASTIC MODEL. Reviews in Mathematical Physics, 2006, 18, 619-653.	0.7	27
104	Thermoelectric phenomena via an interacting particle system. Journal of Physics A, 2005, 38, 1005-1020.	1.6	9
105	Enstrophy dissipation in two-dimensional turbulence. Physical Review E, 2005, 72, 056314.	0.8	5
106	Fluctuation relations and positivity of the entropy production in irreversible dynamical systems. Nonlinearity, 2004, 17, 1305-1316.	0.6	8
107	The Potts Model Built on Sand. Journal of Statistical Physics, 2004, 117, 179-198.	0.5	2
108	The Infinite Volume Limit of Dissipative Abelian Sandpiles. Communications in Mathematical Physics, 2004, 244, 395-417.	1.0	12

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109	Quantum entropy production as a measure of irreversibility. <i>Physica D: Nonlinear Phenomena</i> , 2004, 187, 383-391.	1.3	25
110	Quantum version of free-energyâ€“irreversible-work relations. <i>Physical Review E</i> , 2004, 69, 026115.	0.8	81
111	Heat Conduction Networks. <i>Journal of Statistical Physics</i> , 2003, 111, 1219-1244.	0.5	36
112	A Markov Model for Kinesin. <i>Journal of Statistical Physics</i> , 2003, 112, 329-355.	0.5	23
113	Time-Reversal and Entropy. <i>Journal of Statistical Physics</i> , 2003, 110, 269-310.	0.5	214
114	Large Deviations and a Fluctuation Symmetry for Chaotic Homeomorphisms. <i>Communications in Mathematical Physics</i> , 2003, 233, 137-151.	1.0	19
115	An extension of the Kac ring model. <i>Journal of Physics A</i> , 2003, 36, 11547-11559.	1.6	12
116	Chapter Twelve. Entropy Production in Driven Spatially Extended Systems. , 2003, , 251-268.		0
117	Spacetime expansions for weakly coupled interacting particle systems. <i>Journal of Physics A</i> , 2002, 35, 3053-3077.	1.6	12
118	The Abelian sandpile model on an infinite tree. <i>Annals of Probability</i> , 2002, 30, 2081.	0.8	16
119	No Current Without Heat. <i>Journal of Statistical Physics</i> , 2002, 106, 569-587.	0.5	7
120	The random geometry of equilibrium phases. <i>Phase Transitions and Critical Phenomena</i> , 2001, 18, 1-142.	1.2	140
121	Positivity of Entropy Production. <i>Journal of Statistical Physics</i> , 2000, 101, 3-15.	0.5	18
122	Percolation, Path Large Deviations and Weakly Gibbs States. <i>Communications in Mathematical Physics</i> , 2000, 209, 517-545.	1.0	19
123	Intermittency and weak Gibbs states. <i>Nonlinearity</i> , 2000, 13, 1681-1698.	0.6	24
124	On the hydrodynamic equilibrium of a rod in a lattice fluid. <i>Journal of Physics A</i> , 2000, 33, 4725-4740.	1.6	3
125	Comment on â€œCritical Behavior of the Randomly Spin Diluted 2D Ising Model: A Grand Ensemble Approachâ€œ. <i>Physical Review Letters</i> , 2000, 84, 6134-6134.	2.9	11
126	On the definition of entropy production, via examples. <i>Journal of Mathematical Physics</i> , 2000, 41, 1528-1554.	0.5	114

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127	Almost Gibbsian versus weakly Gibbsian measures. Stochastic Processes and Their Applications, 1999, 79, 1-15.	0.4	36
128	The Restriction of the Ising Model to a Layer. Journal of Statistical Physics, 1999, 96, 69-107.	0.5	20
129	Hydrodynamics for Quasi-Free Quantum Systems. Journal of Statistical Physics, 1999, 94, 893-912.	0.5	2
130	The Fluctuation Theorem as a Gibbs Property. Journal of Statistical Physics, 1999, 95, 367-392.	0.5	396
131	Freezing transition in the Ising model without internal contours. Probability Theory and Related Fields, 1999, 115, 479-503.	0.9	3
132	Convergence to Equilibrium of Random Ising Models in the Griffiths Phase. Journal of Statistical Physics, 1998, 92, 337-351.	0.5	7
133	Transformations of Gibbs measures. Probability Theory and Related Fields, 1998, 112, 121-147.	0.9	21
134	Criticality in creep experiments on cellular glass. Physical Review B, 1998, 57, 4987-4990.	1.1	76
135	Stochastic stability of weakly coupled lattice maps. Nonlinearity, 1997, 10, 715-730.	0.6	12
136	Weakly gibbsian measures for lattice spin systems. Journal of Statistical Physics, 1997, 89, 561-579.	0.5	16
137	Relaxation of Disordered Magnets in the Griffiths' Regime. Communications in Mathematical Physics, 1997, 188, 135-173.	1.0	38
138	Relative Energies for Non-Gibbsian States. Communications in Mathematical Physics, 1997, 189, 277-286.	1.0	29
139	Relaxation to Equilibrium for Two Dimensional Disordered Ising Systems in the Griffiths Phase. Communications in Mathematical Physics, 1997, 189, 323-335.	1.0	20
140	Percolation techniques in disordered spin flip dynamics: Relation to the unique invariant measure. Communications in Mathematical Physics, 1996, 177, 83-101.	1.0	10
141	Effect of negative differential conductivity in a driven diffusive lattice gas. Physical Review B, 1996, 53, 12889-12895.	1.1	4
142	On the van Hove weak-coupling limit for impurity scattering of a quantum particle on a lattice. Journal of Physics A, 1996, 29, 2553-2565.	1.6	0
143	The uniqueness regime of Gibbs fields with unbounded disorder. Journal of Statistical Physics, 1995, 81, 829-835.	0.5	18
144	Agreement percolation and phase coexistence in some Gibbs systems. Journal of Statistical Physics, 1995, 80, 1379-1403.	0.5	24

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145	The (non-)Gibbsian nature of states invariant under stochastic transformations. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1994, 206, 587-603.	1.2	17
146	When is an interacting particle system ergodic?. <i>Communications in Mathematical Physics</i> , 1993, 151, 447-466.	1.0	18
147	COUPLING INTERACTING PARTICLE SYSTEMS. <i>Reviews in Mathematical Physics</i> , 1993, 05, 457-475.	0.7	9
148	The interaction potential of the stationary measure of a high-noise spinflip process. <i>Journal of Mathematical Physics</i> , 1993, 34, 3030-3038.	0.5	7
149	Constructive Criteria for the Ergodicity of Interacting Particle Systems. , 1993, , 451-461.		0
150	The Gacs-Kurdyumov-Levin automaton revisited. <i>Journal of Statistical Physics</i> , 1992, 67, 507-522.	0.5	41
151	Ergodicity of probabilistic cellular automata: A constructive criterion. <i>Communications in Mathematical Physics</i> , 1991, 135, 233-251.	1.0	28
152	Anisotropic perturbations of the simple symmetric exclusion process : long range correlations. <i>Journal De Physique, I</i> , 1991, 1, 669-684.	1.2	5
153	Kinetic limit of a conservative lattice gas dynamics showing long-range correlations. <i>Journal of Statistical Physics</i> , 1990, 61, 667-681.	0.5	11
154	Statistical mechanics of probabilistic cellular automata. <i>Journal of Statistical Physics</i> , 1990, 59, 117-170.	0.5	152
155	Long-range correlations for conservative dynamics. <i>Physical Review A</i> , 1990, 42, 1954-1968.	1.0	173
156	From PCA's to equilibrium systems and back. <i>Communications in Mathematical Physics</i> , 1989, 125, 71-79.	1.0	38
157	On the positivity of correlations in nonequilibrium spin systems. <i>Journal of Statistical Physics</i> , 1988, 53, 295-305.	0.5	10
158	Derivation of a hydrodynamic equation for Ginzburg-Landau models in an external field. <i>Journal of Statistical Physics</i> , 1988, 53, 1179-1206.	0.5	8
159	Percolation in strongly correlated systems: The massless Gaussian field. <i>Journal of Statistical Physics</i> , 1987, 48, 1249-1268.	0.5	55
160	The effect of an external field on an interface, entropic repulsion. <i>Journal of Statistical Physics</i> , 1987, 46, 39-49.	0.5	43
161	Local detailed balance. <i>SciPost Physics Lecture Notes</i> , 0, , .	0.0	39
162	Entropy Production in Driven Spatially Extended Systems. , 0, , 251-268.		1