Hyunggyu Park

List of Publications by Year
in descending order

97 papers	2,199 citations	236925 25 h-index	265206 42 g-index
97 all docs	97 docs citations	97 times ranked	1250 citing authors

#	Article	IF	Citations
1	Effects of the non-Markovianity and non-Gaussianity of active environmental noises on engine performance. Physical Review E, 2022, 105, 024130.	2.1	8
2	Thermodynamic uncertainty relation in the overdamped limit with a magnetic Lorentz force. Physical Review Research, 2021, 3, .	3.6	9
3	Geometry-induced rectification for an active object. Physical Review Research, 2021, 3, .	3.6	1
4	Universal form of thermodynamic uncertainty relation for Langevin dynamics. Physical Review E, 2021, 104, L052102.	2.1	17
5	Self-repelling bipedal exploration process. Physical Review E, 2021, 104, 054135.	2.1	0
6	Active microrheology of a bulk metallic glass. Science Advances, 2020, 6, eaba8766.	10.3	7
7	Brownian heat engine with active reservoirs. Physical Review E, 2020, 102, 032116.	2.1	22
8	Exactly solvable two-terminal heat engine with asymmetric Onsager coefficients: Origin of the power-efficiency bound. Physical Review E, 2020, 101, 052132.	2.1	10
9	Carnot Efficiency and Zero-Entropy Production Rate Do Not Guarantee Reversibility of a Process. Journal of the Korean Physical Society, 2019, 75, 948-952.	0.7	8
10	Three heats in a strongly coupled system and bath. Physical Review E, 2019, 100, 052127.	2.1	4
11	Thermodynamic uncertainty relation for underdamped Langevin systems driven by a velocity-dependent force. Physical Review E, 2019, 100, 062132.	2.1	29
12	Two-dimensional super-roughening in the three-dimensional Ising model. Physical Review E, 2019, 100, 060101.	2.1	3
13	Nonuniversality of heat-engine efficiency at maximum power. Physical Review E, 2018, 98, .	2.1	10
14	Characterizing the nature of the rigidity transition. Physical Review E, 2018, 98, .	2.1	9
15	Stochastic thermodynamics and hierarchy of fluctuation theorems with multiple reservoirs. New Journal of Physics, 2018, 20, 083010.	2.9	2
16	Entropy and Thermodynamic Second Laws: New Perspective - Stochastic Thermodynamics and Fluctuation Theorems. Journal of the Korean Physical Society, 2018, 72, 1413-1420.	0.7	7
17	Additivity of multiple heat reservoirs in the Langevin equation. Physical Review E, 2018, 97, 062135.	2.1	3
18	Information thermodynamics for a multi-feedback process with time delay. Europhysics Letters, 2017, 117, 10011.	2.0	14

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19	Characterizing rare fluctuations in soft particulate flows. Nature Communications, 2017, 8, 11.	12.8	42
20	Carnot efficiency is reachable in an irreversible process. Scientific Reports, 2017, 7, 10725.	3.3	36
21	Nonequilibrium steady states in Langevin thermal systems. Physical Review E, 2017, 96, 022134.	2.1	11
22	Unconventional entropy production in the presence of momentum-dependent forces. Journal of the Korean Physical Society, 2016, 68, 633-638.	0.7	23
23	Overdamped limit and inverse-friction expansion for Brownian motion in an inhomogeneous medium. Physical Review E, 2015, 91, 062118.	2.1	24
24	Finite-size scaling, dynamic fluctuations, and hyperscaling relation in the Kuramoto model. Physical Review E, 2015, 92, 022122.	2.1	29
25	Total cost of operating an information engine. New Journal of Physics, 2015, 17, 085001.	2.9	18
26	Nature of synchronization transitions in random networks of coupled oscillators. Physical Review E, 2014, 89, 012810.	2.1	16
27	The statistical mechanics of the coagulationâ€“diffusion process with a stochastic reset. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 045002.	2.1	93
28	Heat fluctuations and initial ensembles. Physical Review E, 2014, 90, 032117.	2.1	23
29	Fluctuation Theorems and Entropy Production with Odd-Parity Variables. Physical Review Letters, 2013, 110, 050602.	7.8	46
30	Multiple Dynamic Transitions in Nonequilibrium Work Fluctuations. Physical Review Letters, 2013, 111, 130601.	7.8	16
31	Link-disorder fluctuation effects on synchronization in random networks. Physical Review E, 2013, 87, 042105.	2.1	11
32	Work fluctuations in a time-dependent harmonic potential: Rigorous results beyond the overdamped limit. Physical Review E, 2013, 88, 062102.	2.1	38
33	Everlasting initial memory threshold for rare events in equilibration processes. Physical Review E, 2013, 87, 020104.	2.1	22
34	Modified saddle-point integral near a singularity for the large deviation function. Journal of Statistical Mechanics: Theory and Experiment, 2013, 2013, P11002.	2.3	5
35	Entanglement versus mutual information in quantum spin chains. Journal of Statistical Mechanics: Theory and Experiment, 2012, 2012, P10026.	2.3	16
36	Rectification of Spatial Disorder. Physical Review Letters, 2012, 108, 060601.	7.8	6

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37	Continuity of the explosive percolation transition. Physical Review E, 2011, 84, 020101.	2.1	64
38	Nonequilibrium fluctuations for linear diffusion dynamics. Physical Review E, 2011, 83, 061145.	2.1	41
39	Scaling of cluster heterogeneity in percolation transitions. Physical Review E, 2011, 84, 010101.	2.1	14
40	Collective helping and bystander effects in coevolving helping networks. Physical Review E, 2010, 81, 066108.	2.1	2
41	Critical behavior of the contact process in annealed scale-free networks. Physical Review E, 2009, 79, 056115.	2.1	28
42	Relaxation dynamics of an elastic string in random media. Physical Review E, 2009, 80, 040102.	2.1	15
43	Critical behavior of the Ising model in annealed scale-free networks. Physical Review E, 2009, 80, 051127.	2.1	33
44	Kinetics of a non-Glauberian Ising model: global observables and exact results. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P03023.	2.3	3
45	Crossover from the parity-conserving pair contact process with diffusion to other universality classes. Physical Review E, 2009, 79, 051130.	2.1	10
46	Nonequilibrium phase transitions into absorbing states. European Physical Journal B, 2008, 64, 415-421.	1.5	11
47	Three different routes from the directed Ising to the directed percolation class. Physical Review E, 2008, 78, 041128.	2.1	10
48	Boundary-induced abrupt transition in the symmetric exclusion process. Physical Review E, 2008, 77, 061118.	2.1	18
49	Construction of equilibrium networks with an energy function. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 9723-9732.	2.1	2
50	Finite-Size Scaling in Complex Networks. Physical Review Letters, 2007, 98, 258701.	7.8	90
51	Dynamic instability transitions in one-dimensional driven diffusive flow with nonlocal hopping. Physical Review E, 2007, 75, 061131.	2.1	15
52	Entrainment Transition in Populations of Random Frequency Oscillators. Physical Review Letters, 2007, 99, 184101.	7.8	82
53	Nontrivial critical crossover between directed percolation models: Effect of infinitely many absorbing states. Physical Review E, 2007, 76, 051123.	2.1	15
54	Finite-size scaling of synchronized oscillation on complex networks. Physical Review E, 2007, 76, 066104.	2.1	33

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55	Comment on â€œNon-Mean-Field Behavior of the Contact Process on Scale-Free Networksâ€• Physical Review Letters, 2007, 98, 029801; discussion 029802.	7.8	25
56	Equivalence of operator-splitting schemes for the integration of the Langevin equation. Journal of Statistical Mechanics: Theory and Experiment, 2006, 2006, P08021-P08021.	2.3	4
57	Crossover from the pair contact process with diffusion to directed percolation. Physical Review E, 2006, 73, 025105.	2.1	17
58	Scale-free dynamics emerging from information transfer. Europhysics Letters, 2005, 69, 503-509.	2.0	5
59	Slow relaxation in the Ising model on a small-world network with strong long-range interactions. Physical Review E, 2005, 71, 036103.	2.1	8
60	Asymmetrically Coupled Directed Percolation Systems. Physical Review Letters, 2005, 94, 145702.	7.8	16
61	Cluster mean-field approximations with the coherent-anomaly-method analysis for the driven pair contact process with diffusion. Physical Review E, 2005, 71, 016137.	2.1	15
62	Driven Pair Contact Process with Diffusion. Physical Review Letters, 2005, 94, 065701.	7.8	26
63	Collective synchronization in spatially extended systems of coupled oscillators with random frequencies. Physical Review E, 2005, 72, 036217.	2.1	82
64	Generating function for particle-number probability distribution in directed percolation. Journal of Physics A, 2005, 38, 8187-8199.	1.6	1
65	The stability of the critical scaling against the time-dependent perturbation. AIP Conference Proceedings, 2004, , .	0.4	0
66	Factors that predict better synchronizability on complex networks. Physical Review E, 2004, 69, 067105.	2.1	209
67	Collective phase synchronization in locally coupled limit-cycle oscillators. Physical Review E, 2004, 70, 045204.	2.1	25
68	Stability of vacuum in coupled directed percolation processes. Physical Review E, 2004, 69, 066125.	2.1	5
69	Universality class of absorbing transitions with continuously varying critical exponents. Physical Review E, 2004, 69, 016122.	2.1	50
70	Comment on â€œRestricted curvature model with suppression of extremal heightâ€• Physical Review E, 2003, 68, 053601; discussion 053602.	2.1	7
71	Fluctuations of self-flattening surfaces. Physical Review E, 2002, 66, 040602.	2.1	11
72	Dynamical surface structures in multiparticle-correlated surface growths. Physical Review E, 2002, 66, 046123.	2.1	11

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73	Anomalous roughness, localization, and globally constrained random walks. Physical Review E, 2001, 64, 046131.	2.1	13
74	Does Hard Core Interaction Change Absorbing-Type Critical Phenomena?. Physical Review Letters, 2000, 85, 1682-1685.	7.8	28
75	Anomalous Roughness in Dimer-Type Surface Growth. Physical Review Letters, 2000, 84, 3891-3894.	7.8	20
76	Absorbing-state critical phenomena in interacting surface reaction models. Brazilian Journal of Physics, 2000, 30, 133-138.	1.4	2
77	Particle dynamics in a mass-conserving coalescence process. Journal of Physics A, 1999, 32, L495-L502.	1.6	2
78	Directed Ising type dynamic preroughening transition in one-dimensional interfaces. Physical Review E, 1999, 59, 194-204.	2.1	6
79	Active width at a slanted active boundary in directed percolation. Physical Review E, 1999, 60, 2496-2500.	2.1	9
80	Dynamic behavior of driven interfaces in models with two absorbing states. Physical Review E, 1999, 59, 4949-4952.	2.1	6
81	Interacting monomer-dimer model with infinitely many absorbing states. Physical Review E, 1999, 59, 4683-4686.	2.1	14
82	Critical phenomena of nonequilibrium dynamical systems with two absorbing states. Physical Review E, 1998, 57, 6438-6450.	2.1	44
83	Critical behavior of an absorbing phase transition in an interacting monomer-dimer model. Physica A: Statistical Mechanics and Its Applications, 1995, 221, 97-103.	2.6	40
84	Dynamic scaling behavior of an interacting monomer-dimer model. Physical Review E, 1995, 52, 5664-5666.	2.1	49
85	Exact solutions of a restricted ballistic deposition model on a one-dimensional staircase. Physical Review E, 1995, 51, 1047-1054.	2.1	5
86	Reentrant phase diagram of branching annihilating random walks with one and two offspring. Physical Review E, 1995, 52, 5955-5960.	2.1	40
87	Three-state Potts model on a triangular lattice. Physical Review B, 1994, 49, 12881-12887.	3.2	11
88	Critical Behavior of an Interacting Monomer-Dimer Model. Physical Review Letters, 1994, 73, 2579-2582.	7.8	117
89	Excluded volume effects in heterogeneous catalysis: reactions between 'dollars' and 'dimes'. Journal of Physics A, 1993, 26, 2071-2079.	1.6	17
90	Critical behaviour of an interacting surface reaction model. Journal of Physics A, 1993, 26, 4197-4213.	1.6	19

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91	Triviality of the critical exponents of directed self-avoiding walks on Sierpinski carpets. Journal of Physics A, 1992, 25, L453-L459.	1.6	3
92	Phase diagram of a random tiling quasicrystal. Journal of Statistical Physics, 1992, 66, 1-69.	1.2	39
93	Conformal invariance in incommensurate phases. Journal of Statistical Physics, 1990, 61, 51-78.	1.2	5
94	Finite-size-scaling amplitudes of the incommensurate phase. Physical Review Letters, 1990, 64, 1076-1079.	7.8	13
95	Exact results on the antiferromagnetic three-state Potts model. Physical Review Letters, 1989, 63, 1193-1193.	7.8	25
96	Universal finite-size-scaling amplitudes of the Potts model on a torus. Physical Review B, 1988, 38, 565-579.	3.2	21
97	Anisotropic honeycomb domain wall networks in uniaxial systems. Annals of Physics, 1986, 172, 419-450.	2.8	10