

Hyunggyu Park

List of Publications by Year in descending order

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97
papers

2,199
citations

236925

25
h-index

265206

42
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97
all docs

97
docs citations

97
times ranked

1250
citing authors

#	ARTICLE	IF	CITATIONS
1	Factors that predict better synchronizability on complex networks. <i>Physical Review E</i> , 2004, 69, 067105.	2.1	209
2	Critical Behavior of an Interacting Monomer-Dimer Model. <i>Physical Review Letters</i> , 1994, 73, 2579-2582.	7.8	117
3	The statistical mechanics of the coagulation-diffusion process with a stochastic reset. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2014, 47, 045002.	2.1	93
4	Finite-Size Scaling in Complex Networks. <i>Physical Review Letters</i> , 2007, 98, 258701.	7.8	90
5	Collective synchronization in spatially extended systems of coupled oscillators with random frequencies. <i>Physical Review E</i> , 2005, 72, 036217.	2.1	82
6	Entrainment Transition in Populations of Random Frequency Oscillators. <i>Physical Review Letters</i> , 2007, 99, 184101.	7.8	82
7	Continuity of the explosive percolation transition. <i>Physical Review E</i> , 2011, 84, 020101.	2.1	64
8	Universality class of absorbing transitions with continuously varying critical exponents. <i>Physical Review E</i> , 2004, 69, 016122.	2.1	50
9	Dynamic scaling behavior of an interacting monomer-dimer model. <i>Physical Review E</i> , 1995, 52, 5664-5666.	2.1	49
10	Fluctuation Theorems and Entropy Production with Odd-Parity Variables. <i>Physical Review Letters</i> , 2013, 110, 050602.	7.8	46
11	Critical phenomena of nonequilibrium dynamical systems with two absorbing states. <i>Physical Review E</i> , 1998, 57, 6438-6450.	2.1	44
12	Characterizing rare fluctuations in soft particulate flows. <i>Nature Communications</i> , 2017, 8, 11.	12.8	42
13	Nonequilibrium fluctuations for linear diffusion dynamics. <i>Physical Review E</i> , 2011, 83, 061145.	2.1	41
14	Critical behavior of an absorbing phase transition in an interacting monomer-dimer model. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1995, 221, 97-103.	2.6	40
15	Reentrant phase diagram of branching annihilating random walks with one and two offspring. <i>Physical Review E</i> , 1995, 52, 5955-5960.	2.1	40
16	Phase diagram of a random tiling quasicrystal. <i>Journal of Statistical Physics</i> , 1992, 66, 1-69.	1.2	39
17	Work fluctuations in a time-dependent harmonic potential: Rigorous results beyond the overdamped limit. <i>Physical Review E</i> , 2013, 88, 062102.	2.1	38
18	Carnot efficiency is reachable in an irreversible process. <i>Scientific Reports</i> , 2017, 7, 10725.	3.3	36

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19	Finite-size scaling of synchronized oscillation on complex networks. <i>Physical Review E</i> , 2007, 76, 066104.	2.1	33
20	Critical behavior of the Ising model in annealed scale-free networks. <i>Physical Review E</i> , 2009, 80, 051127.	2.1	33
21	Finite-size scaling, dynamic fluctuations, and hyperscaling relation in the Kuramoto model. <i>Physical Review E</i> , 2015, 92, 022122.	2.1	29
22	Thermodynamic uncertainty relation for underdamped Langevin systems driven by a velocity-dependent force. <i>Physical Review E</i> , 2019, 100, 062132.	2.1	29
23	Does Hard Core Interaction Change Absorbing-Type Critical Phenomena?. <i>Physical Review Letters</i> , 2000, 85, 1682-1685.	7.8	28
24	Critical behavior of the contact process in annealed scale-free networks. <i>Physical Review E</i> , 2009, 79, 056115.	2.1	28
25	Driven Pair Contact Process with Diffusion. <i>Physical Review Letters</i> , 2005, 94, 065701.	7.8	26
26	Exact results on the antiferromagnetic three-state Potts model. <i>Physical Review Letters</i> , 1989, 63, 1193-1193.	7.8	25
27	Collective phase synchronization in locally coupled limit-cycle oscillators. <i>Physical Review E</i> , 2004, 70, 045204.	2.1	25
28	Comment on "Non-Mean-Field Behavior of the Contact Process on Scale-Free Networks". <i>Physical Review Letters</i> , 2007, 98, 029801; discussion 029802.	7.8	25
29	Overdamped limit and inverse-friction expansion for Brownian motion in an inhomogeneous medium. <i>Physical Review E</i> , 2015, 91, 062118.	2.1	24
30	Heat fluctuations and initial ensembles. <i>Physical Review E</i> , 2014, 90, 032117.	2.1	23
31	Unconventional entropy production in the presence of momentum-dependent forces. <i>Journal of the Korean Physical Society</i> , 2016, 68, 633-638.	0.7	23
32	Everlasting initial memory threshold for rare events in equilibration processes. <i>Physical Review E</i> , 2013, 87, 020104.	2.1	22
33	Brownian heat engine with active reservoirs. <i>Physical Review E</i> , 2020, 102, 032116.	2.1	22
34	Universal finite-size-scaling amplitudes of the Potts model on a torus. <i>Physical Review B</i> , 1988, 38, 565-579.	3.2	21
35	Anomalous Roughness in Dimer-Type Surface Growth. <i>Physical Review Letters</i> , 2000, 84, 3891-3894.	7.8	20
36	Critical behaviour of an interacting surface reaction model. <i>Journal of Physics A</i> , 1993, 26, 4197-4213.	1.6	19

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37	Boundary-induced abrupt transition in the symmetric exclusion process. <i>Physical Review E</i> , 2008, 77, 061118.	2.1	18
38	Total cost of operating an information engine. <i>New Journal of Physics</i> , 2015, 17, 085001.	2.9	18
39	Excluded volume effects in heterogeneous catalysis: reactions between 'dollars' and 'dimes'. <i>Journal of Physics A</i> , 1993, 26, 2071-2079.	1.6	17
40	Crossover from the pair contact process with diffusion to directed percolation. <i>Physical Review E</i> , 2006, 73, 025105.	2.1	17
41	Universal form of thermodynamic uncertainty relation for Langevin dynamics. <i>Physical Review E</i> , 2021, 104, L052102.	2.1	17
42	Asymmetrically Coupled Directed Percolation Systems. <i>Physical Review Letters</i> , 2005, 94, 145702.	7.8	16
43	Entanglement versus mutual information in quantum spin chains. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2012, 2012, P10026.	2.3	16
44	Multiple Dynamic Transitions in Nonequilibrium Work Fluctuations. <i>Physical Review Letters</i> , 2013, 111, 130601.	7.8	16
45	Nature of synchronization transitions in random networks of coupled oscillators. <i>Physical Review E</i> , 2014, 89, 012810.	2.1	16
46	Cluster mean-field approximations with the coherent-anomaly-method analysis for the driven pair contact process with diffusion. <i>Physical Review E</i> , 2005, 71, 016137.	2.1	15
47	Dynamic instability transitions in one-dimensional driven diffusive flow with nonlocal hopping. <i>Physical Review E</i> , 2007, 75, 061131.	2.1	15
48	Nontrivial critical crossover between directed percolation models: Effect of infinitely many absorbing states. <i>Physical Review E</i> , 2007, 76, 051123.	2.1	15
49	Relaxation dynamics of an elastic string in random media. <i>Physical Review E</i> , 2009, 80, 040102.	2.1	15
50	Interacting monomer-dimer model with infinitely many absorbing states. <i>Physical Review E</i> , 1999, 59, 4683-4686.	2.1	14
51	Scaling of cluster heterogeneity in percolation transitions. <i>Physical Review E</i> , 2011, 84, 010101.	2.1	14
52	Information thermodynamics for a multi-feedback process with time delay. <i>Europhysics Letters</i> , 2017, 117, 10011.	2.0	14
53	Finite-size-scaling amplitudes of the incommensurate phase. <i>Physical Review Letters</i> , 1990, 64, 1076-1079.	7.8	13
54	Anomalous roughness, localization, and globally constrained random walks. <i>Physical Review E</i> , 2001, 64, 046131.	2.1	13

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55	Three-state Potts model on a triangular lattice. <i>Physical Review B</i> , 1994, 49, 12881-12887.	3.2	11
56	Fluctuations of self-flattening surfaces. <i>Physical Review E</i> , 2002, 66, 040602.	2.1	11
57	Dynamical surface structures in multiparticle-correlated surface growths. <i>Physical Review E</i> , 2002, 66, 046123.	2.1	11
58	Nonequilibrium phase transitions into absorbing states. <i>European Physical Journal B</i> , 2008, 64, 415-421.	1.5	11
59	Link-disorder fluctuation effects on synchronization in random networks. <i>Physical Review E</i> , 2013, 87, 042105.	2.1	11
60	Nonequilibrium steady states in Langevin thermal systems. <i>Physical Review E</i> , 2017, 96, 022134.	2.1	11
61	Anisotropic honeycomb domain wall networks in uniaxial systems. <i>Annals of Physics</i> , 1986, 172, 419-450.	2.8	10
62	Three different routes from the directed Ising to the directed percolation class. <i>Physical Review E</i> , 2008, 78, 041128.	2.1	10
63	Crossover from the parity-conserving pair contact process with diffusion to other universality classes. <i>Physical Review E</i> , 2009, 79, 051130.	2.1	10
64	Nonuniversality of heat-engine efficiency at maximum power. <i>Physical Review E</i> , 2018, 98, .	2.1	10
65	Exactly solvable two-terminal heat engine with asymmetric Onsager coefficients: Origin of the power-efficiency bound. <i>Physical Review E</i> , 2020, 101, 052132.	2.1	10
66	Active width at a slanted active boundary in directed percolation. <i>Physical Review E</i> , 1999, 60, 2496-2500.	2.1	9
67	Characterizing the nature of the rigidity transition. <i>Physical Review E</i> , 2018, 98, .	2.1	9
68	Thermodynamic uncertainty relation in the overdamped limit with a magnetic Lorentz force. <i>Physical Review Research</i> , 2021, 3, .	3.6	9
69	Slow relaxation in the Ising model on a small-world network with strong long-range interactions. <i>Physical Review E</i> , 2005, 71, 036103.	2.1	8
70	Carnot Efficiency and Zero-Entropy Production Rate Do Not Guarantee Reversibility of a Process. <i>Journal of the Korean Physical Society</i> , 2019, 75, 948-952.	0.7	8
71	Effects of the non-Markovianity and non-Gaussianity of active environmental noises on engine performance. <i>Physical Review E</i> , 2022, 105, 024130.	2.1	8
72	Comment on "Restricted curvature model with suppression of extremal height". <i>Physical Review E</i> , 2003, 68, 053601; discussion 053602.	2.1	7

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73	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
74	Active microrheology of a bulk metallic glass. Science Advances, 2020, 6, eaba8766.	10.3	7
75	Directed Ising type dynamic preroughening transition in one-dimensional interfaces. Physical Review E, 1999, 59, 194-204.	2.1	6
76	Dynamic behavior of driven interfaces in models with two absorbing states. Physical Review E, 1999, 59, 4949-4952.	2.1	6
77	Rectification of Spatial Disorder. Physical Review Letters, 2012, 108, 060601.	7.8	6
78	Conformal invariance in incommensurate phases. Journal of Statistical Physics, 1990, 61, 51-78.	1.2	5
79	Exact solutions of a restricted ballistic deposition model on a one-dimensional staircase. Physical Review E, 1995, 51, 1047-1054.	2.1	5
80	Stability of vacuum in coupled directed percolation processes. Physical Review E, 2004, 69, 066125.	2.1	5
81	Scale-free dynamics emerging from information transfer. Europhysics Letters, 2005, 69, 503-509.	2.0	5
82	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
83	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
84	Three heats in a strongly coupled system and bath. Physical Review E, 2019, 100, 052127.	2.1	4
85	Triviality of the critical exponents of directed self-avoiding walks on Sierpinski carpets. Journal of Physics A, 1992, 25, L453-L459.	1.6	3
86	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
87	Additivity of multiple heat reservoirs in the Langevin equation. Physical Review E, 2018, 97, 062135.	2.1	3
88	Two-dimensional super-roughening in the three-dimensional Ising model. Physical Review E, 2019, 100, 060101.	2.1	3
89	Particle dynamics in a mass-conserving coalescence process. Journal of Physics A, 1999, 32, L495-L502.	1.6	2
90	Construction of equilibrium networks with an energy function. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 9723-9732.	2.1	2

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91	Collective helping and bystander effects in coevolving helping networks. <i>Physical Review E</i> , 2010, 81, 066108.	2.1	2
92	Stochastic thermodynamics and hierarchy of fluctuation theorems with multiple reservoirs. <i>New Journal of Physics</i> , 2018, 20, 083010.	2.9	2
93	Absorbing-state critical phenomena in interacting surface reaction models. <i>Brazilian Journal of Physics</i> , 2000, 30, 133-138.	1.4	2
94	Generating function for particle-number probability distribution in directed percolation. <i>Journal of Physics A</i> , 2005, 38, 8187-8199.	1.6	1
95	Geometry-induced rectification for an active object. <i>Physical Review Research</i> , 2021, 3, .	3.6	1
96	The stability of the critical scaling against the time-dependent perturbation. <i>AIP Conference Proceedings</i> , 2004, , .	0.4	0
97	Self-repelling bipedal exploration process. <i>Physical Review E</i> , 2021, 104, 054135.	2.1	0