

R K P Zia

List of Publications by Year in descending order

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95
papers

3,532
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136950

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citing authors

#	ARTICLE	IF	CITATIONS
1	Effects of homophily and heterophily on preferred-degree networks: mean-field analysis and overwhelming transition. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2022, 2022, 013402.	2.3	2
2	How does homophily shape the topology of a dynamic network?. <i>Physical Review E</i> , 2021, 104, 044311.	2.1	5
3	Microemulsions in the driven Widom-Rowlinson lattice gas. <i>Physical Review E</i> , 2021, 104, 064135.	2.1	3
4	Nonequilibrium Oscillations, Probability Angular Momentum, and the Climate System. <i>Journal of Statistical Physics</i> , 2020, 179, 1010-1027.	1.2	13
5	Exact microcanonical statistical analysis of transition behavior in Ising chains and strips. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2020, 2020, 073204.	2.3	9
6	Coevolution of nodes and links: Diversity-driven coexistence in cyclic competition of three species. <i>Physical Review E</i> , 2019, 99, 022309.	2.1	4
7	Emergence of a spectral gap in a class of random matrices associated with split graphs. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2018, 51, 014002.	2.1	0
8	Exact results for the extreme Thouless effect in a model of network dynamics. <i>Europhysics Letters</i> , 2018, 124, 60008.	2.0	0
9	Driven Widom-Rowlinson lattice gas. <i>Physical Review E</i> , 2018, 97, 062126.	2.1	6
10	Heterogeneous out-of-equilibrium nonlinear q -voter model with zealotry. <i>Physical Review E</i> , 2017, 95, 012104.	2.1	30
11	Manifest and Subtle Cyclic Behavior in Nonequilibrium Steady States. <i>Journal of Physics: Conference Series</i> , 2016, 750, 012003.	0.4	5
12	Characterization of the nonequilibrium steady state of a heterogeneous nonlinear q -voter model with zealotry. <i>Europhysics Letters</i> , 2016, 113, 48001.	2.0	38
13	Networks with preferred degree: a mini-review and some new results. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2015, 2015, P07013.	2.3	10
14	Spatial structures in a simple model of population dynamics for parasite-host interactions. <i>Europhysics Letters</i> , 2015, 111, 48001.	2.0	0
15	Extreme Thouless effect in a minimal model of dynamic social networks. <i>Physical Review E</i> , 2015, 91, 042102.	2.1	13
16	Modeling interacting dynamic networks: II. Systematic study of the statistical properties of cross-links between two networks with preferred degrees. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2014, 2014, P05021.	2.3	7
17	Nonequilibrium statistical mechanics of a two-temperature Ising ring with conserved dynamics. <i>Physical Review E</i> , 2014, 90, 062113.	2.1	8
18	NEXUS/Physics: An interdisciplinary repurposing of physics for biologists. <i>American Journal of Physics</i> , 2014, 82, 368-377.	0.7	71

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19	Exact results for a simple epidemic model on a directed network: Explorations of a system in a nonequilibrium steady state. <i>Physical Review E</i> , 2014, 90, 032107.	2.1	7
20	Mass transport perspective on an accelerated exclusion process: Analysis of augmented current and unit-velocity phases. <i>Physical Review E</i> , 2013, 87, 022146.	2.1	3
21	Modeling interacting dynamic networks: I. Preferred degree networks and their characteristics. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2013, 2013, P08001.	2.3	8
22	Competition for finite resources. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2012, 2012, P05008.	2.3	8
23	Extraordinary variability and sharp transitions in a maximally frustrated dynamic network. <i>Europhysics Letters</i> , 2012, 100, 66007.	2.0	26
24	Stochastic evolution of four species in cyclic competition. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2012, 2012, P06014.	2.3	21
25	On the relationship between cyclic and hierarchical three-species predator-prey systems and the two-species Lotka-Volterra model. <i>European Physical Journal B</i> , 2012, 85, 1.	1.5	21
26	Epidemic Spreading on Preferred Degree Adaptive Networks. <i>PLoS ONE</i> , 2012, 7, e48686.	2.5	21
27	Non-equilibrium statistical mechanics: from a paradigmatic model to biological transport. <i>Reports on Progress in Physics</i> , 2011, 74, 116601.	20.1	398
28	Modeling Translation in Protein Synthesis with TASEP: A Tutorial and Recent Developments. <i>Journal of Statistical Physics</i> , 2011, 144, 405-428.	1.2	161
29	Saddles, arrows, and spirals: Deterministic trajectories in cyclic competition of four species. <i>Physical Review E</i> , 2011, 83, 051108.	2.1	31
30	Twenty Five Years After KLS: A Celebration of Non-equilibrium Statistical Mechanics. <i>Journal of Statistical Physics</i> , 2010, 138, 20-28.	1.2	34
31	Convection cells induced by spontaneous symmetry breaking. <i>Europhysics Letters</i> , 2010, 89, 50001.	2.0	11
32	Cyclic competition of four species: Mean-field theory and stochastic evolution. <i>Europhysics Letters</i> , 2010, 92, 58003.	2.0	34
33	Energy flux near the junction of two Ising chains at different temperatures. <i>Europhysics Letters</i> , 2010, 91, 50003.	2.0	7
34	Power spectra of a constrained totally asymmetric simple exclusion process. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2010, 2010, P07014.	2.3	10
35	Network evolution induced by the dynamical rules of two populations. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2010, 2010, P10018.	2.3	5
36	Competition between multiple totally asymmetric simple exclusion processes for a finite pool of resources. <i>Physical Review E</i> , 2009, 80, 031142.	2.1	60

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37	Feedback and fluctuations in a totally asymmetric simple exclusion process with finite resources. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P02012.	2.3	42
38	Understanding the edge effect in TASEP with mean-field theoretic approaches. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 015002.	2.1	12
39	Percolation of a collection of finite random walks: a model for gas permeation through thin polymeric membranes. Journal of Mathematical Chemistry, 2009, 45, 58-64.	1.5	9
40	Far-from-equilibrium transport with constrained resources. Journal of Statistical Mechanics: Theory and Experiment, 2008, 2008, P06009.	2.3	59
41	Power Spectra of the Total Occupancy in the Totally Asymmetric Simple Exclusion Process. Physical Review Letters, 2007, 99, 020601.	7.8	13
42	Inhomogeneous exclusion processes with extended objects: The effect of defect locations. Physical Review E, 2007, 76, 051113.	2.1	88
43	Probability currents as principal characteristics in the statistical mechanics of non-equilibrium steady states. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, P07012-P07012.	2.3	150
44	Towards a Model for Protein Production Rates. Journal of Statistical Physics, 2007, 128, 21-34.	1.2	77
45	Canonical Analysis of Condensation in Factorised Steady States. Journal of Statistical Physics, 2006, 123, 357-390.	1.2	101
46	Factorized steady states in mass transport models on an arbitrary graph. Journal of Physics A, 2006, 39, 4859-4873.	1.6	42
47	A possible classification of nonequilibrium steady states. Journal of Physics A, 2006, 39, L407-L413.	1.6	69
48	Exact dynamics of a reaction-diffusion model with spatially alternating rates. Physical Review E, 2005, 71, 056129.	2.1	9
49	Complete solution of the kinetics in a far-from-equilibrium Ising chain. Journal of Physics A, 2004, 37, L407-L413.	1.6	15
50	Factorized steady states in mass transport models. Journal of Physics A, 2004, 37, L275-L280.	1.6	86
51	Totally asymmetric exclusion process with extended objects: A model for protein synthesis. Physical Review E, 2003, 68, 021910.	2.1	312
52	Watching a drunkard for 10 nights: A study of distributions of variances. American Journal of Physics, 2003, 71, 859-865.	0.7	1
53	Getting more from pushing less: Negative specific heat and conductivity in nonequilibrium steady states. American Journal of Physics, 2002, 70, 384-392.	0.7	74
54	Viability of competing field theories for the driven lattice gas. Physical Review E, 2000, 61, 5977-5980.	2.1	11

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55	Extremal-point densities of interface fluctuations. <i>Physical Review E</i> , 2000, 62, 276-294.	2.1	28
56	“Weather” records: Musings on cold days after a long hot Indian summer. <i>American Journal of Physics</i> , 1999, 67, 1269-1276.	0.7	33
57	Long-range order in a quasi one-dimensional non-equilibrium three-state lattice gas. <i>Europhysics Letters</i> , 1999, 45, 431-436.	2.0	47
58	Phase Transitions in a Driven Lattice Gas with Anisotropic Interactions. <i>Journal of Statistical Physics</i> , 1999, 95, 981-996.	1.2	7
59	Title is missing!. <i>Journal of Statistical Physics</i> , 1998, 91, 525-539.	1.2	9
60	Drifting spatial structures in a system with oppositely driven species. <i>Physical Review E</i> , 1997, 56, 308-315.	2.1	18
61	Periodic one-dimensional hopping model with one mobile directional impurity. <i>Journal of Statistical Physics</i> , 1997, 87, 545-575.	1.2	2
62	Nonequilibrium phase transitions in a simple three-state lattice gas. <i>Journal of Statistical Physics</i> , 1997, 86, 721-748.	1.2	29
63	Subtleties in data analysis related to the size of critical region. <i>Journal of Statistical Physics</i> , 1996, 83, 1219-1223.	1.2	6
64	Monte Carlo studies of a driven lattice gas. I. Growth and asymmetry during phase segregation. <i>Journal of Statistical Physics</i> , 1996, 82, 1133-1158.	1.2	26
65	On singularities in the disordered phase of a driven diffusive system. <i>European Physical Journal B</i> , 1995, 97, 327-332.	1.5	10
66	Phase transitions in a nonequilibrium Potts model: A Monte Carlo study of critical behavior. <i>Physical Review E</i> , 1994, 49, 5871-5874.	2.1	8
67	Two-temperature kinetic Ising model in one dimension: Steady-state correlations in terms of energy and energy flux. <i>Physical Review E</i> , 1994, 49, 139-144.	2.1	29
68	Spontaneous Structure Formation in Driven Systems with Two Species: Exact Solutions in a Mean-Field Theory. <i>Physical Review Letters</i> , 1994, 73, 2071-2074.	7.8	28
69	Three-point correlation functions in uniformly and randomly driven diffusive systems. <i>Physical Review E</i> , 1993, 48, 800-809.	2.1	16
70	Spatial Structures with Non-zero Winding Number in Biased Diffusion of Two Species. <i>Europhysics Letters</i> , 1993, 24, 115-120.	2.0	25
71	Anomalous interfacial correlations in non-equilibrium anisotropic systems. <i>Journal of Physics A</i> , 1993, 26, L737-L741.	1.6	19
72	Onset of Spatial Structures in Biased Diffusion of Two Species. <i>Europhysics Letters</i> , 1992, 19, 19-25.	2.0	91

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73	Statistical mechanics of driven lattice gas models. AIP Conference Proceedings, 1992, , .	0.4	0
74	Finger formation in a driven diffusive system. Physical Review A, 1991, 43, 5214-5222.	2.5	15
75	Interfacial correlation and dispersion in a non-equilibrium steady state system. Journal of Physics A, 1991, 24, L1399-L1404.	1.6	15
76	Critical properties of a randomly driven diffusive system. Physical Review Letters, 1991, 66, 357-360.	7.8	68
77	Phase transitions in a driven lattice gas with repulsive interactions. Physical Review Letters, 1989, 62, 1772-1775.	7.8	50
78	Roughness, spatial, and temporal correlations of an interface in a driven nonequilibrium lattice gas. Physical Review B, 1989, 39, 9312-9317.	3.2	21
79	Driven nonequilibrium lattice systems with shifted periodic boundary conditions. Journal of Statistical Physics, 1989, 56, 43-58.	1.2	27
80	The summertop construction: Crystals in a corner. Journal of Statistical Physics, 1988, 50, 727-736.	1.2	49
81	A lattice-gas hamiltonian for micellar binary solutions. Journal of Statistical Physics, 1988, 50, 839-848.	1.2	8
82	Suppression of Interface Roughness in Driven Nonequilibrium Systems. Physical Review Letters, 1988, 61, 1744-1747.	7.8	43
83	Symmetric Fresnel equations: An energy conservation approach. American Journal of Physics, 1988, 56, 555-558.	0.7	6
84	Classical and semiclassical diamagnetism: A critique of treatment in elementary texts. American Journal of Physics, 1986, 54, 32-35.	0.7	41
85	Equilibrium shapes of crystals in a gravitational field: Crystals on a table. Journal of Statistical Physics, 1983, 33, 493-522.	1.2	30
86	The variety of singularities in models of first order phase transitions. Zeitschrift für Physik B Condensed Matter and Quanta, 1981, 41, 129-138.	1.9	4
87	Classical orbits of a charged particle in a magnetic monopole field. American Journal of Physics, 1979, 47, 700-703.	0.7	4
88	The renormalisation group approach to scaling in physics. Reports on Progress in Physics, 1978, 41, 1-85.	20.1	49
89	Universality in the percolation problem – Anomalous dimensions of τ operators. Physical Review B, 1977, 15, 4657-4666.	3.2	38
90	Essential Singularities at First-Order Phase Transitions. Physical Review Letters, 1976, 37, 639-642.	7.8	50

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91	Singularities induced by Goldstone modes. Physical Review B, 1975, 12, 5340-5342.	3.2	74
92	Critical behaviour of the continuous n-component Potts model. Journal of Physics A, 1975, 8, 1495-1507.	1.6	164
93	On the uniqueness of \bar{t} -4 interactions in two- and three-component spin systems. Journal of Physics A, 1975, 8, 1089-1096.	1.6	17
94	Harmonic perturbations of generalized Heisenberg spin systems. Journal of Physics C: Solid State Physics, 1975, 8, 839-843.	1.5	30
95	Parametric models and the Ising equation of state at order ϵ^3 . Journal of Physics C: Solid State Physics, 1974, 7, 3480-3490.	1.5	38