Charles Radin

List of Publications by Year
in descending order

86 papers	1,925 citations	257450 24 h-index	289244 40 g-index
89 all docs	89 docs citations	89 times ranked	697 citing authors

#	Article	IF	Citations
1	The Pinwheel Tilings of the Plane. Annals of Mathematics, 1994, 139, 661.	4.2	130
2	Space tilings and local isomorphism. Geometriae Dedicata, 1992, 42, 355-360.	0.3	108
3	The ground state for sticky disks. Journal of Statistical Physics, 1980, 22, 281-287.	1.2	82
4	The ground state for soft disks. Journal of Statistical Physics, 1981, 26, 365-373.	1.2	77
5	Global order from local sources. Bulletin of the American Mathematical Society, 1991, 25, 335-364.	1.5	74
6	LOW TEMPERATURE AND THE ORIGIN OF CRYSTALLINE SYMMETRY. International Journal of Modern Physics B, 1987, 01, 1157-1191.	2.0	65
7	Random Close Packing of Granular Matter. Journal of Statistical Physics, 2008, 131, 567-573.	1.2	59
8	The infinite-volume ground state of the Lennard-Jones potential. Journal of Statistical Physics, 1979, 20, 719-724.	1.2	58
9	Phase transition in a static granular system. Europhysics Letters, 2007, 78, 44004.	2.0	55
10	Phase transitions in a complex network. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 305002.	2.1	50
11	Phase transitions in exponential random graphs. Annals of Applied Probability, 2013, 23, .	1.3	45
12	Invariant domains for the time-dependent SchrÃ¶dinger equation. Journal of Differential Equations, 1978, 29, 289-296.	2.2	43
13	Isomorphism of hierarchical structures. Ergodic Theory and Dynamical Systems, 2001, 21, .	0.6	42
14	Most stable structure for hard spheres. Physical Review E, 2005, 72, 016708.	2.1	41
15	Nucleation in Sheared Granular Matter. Physical Review Letters, 2018, 120, 055701.	7.8	40
16	Approach to Equilibrium in a Simple Model. Journal of Mathematical Physics, 1970, 11, 2945-2955.	1.1	38
17	Space tilings and substitutions. Geometriae Dedicata, 1995, 55, 257-264.	0.3	38
18	Periodicity of Classical Ground States. Physical Review Letters, 1983, 51, 621-622.	7.8	37

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19	Tiling, periodicity, and crystals. Journal of Mathematical Physics, 1985, 26, 1342-1344.	1.1	31
20	Quaquaversal tilings and rotations. Inventiones Mathematicae, 1998, 132, 179-188.	2.5	30
21	The crystal structure of the noble gases. Journal of Chemical Physics, 1981, 75, 2012-2013.	3.0	27
22	Singularities in the Entropy of Asymptotically Large Simple Graphs. Journal of Statistical Physics, 2015, 158, 853-865.	1.2	27
23	Convergence rates of ergodic limits for semigroups and cosine functions. Semigroup Forum, 1978, 16, 89-95.	0.6	26
24	The symmetry of ground states under perturbation. Journal of Statistical Physics, 1979, 21, 601-607.	1.2	25
25	Multipodal Structure and Phase Transitions in Large Constrained Graphs. Journal of Statistical Physics, 2017, 168, 233-258.	1.2	25
26	Crystals and quasicrystals: A lattice gas model. Physics Letters, Section A: General, Atomic and Solid State Physics, 1986, 114, 381-383.	2.1	24
27	Densest Packing of Equal Spheres in Hyperbolic Space. Discrete and Computational Geometry, 2002, 29, 23-39.	0.6	24
28	Classical ground states in one dimension. Journal of Statistical Physics, 1984, 35, 109-117.	1.2	23
29	DISORDERED GROUND STATES OF CLASSICAL LATTICE MODELS. Reviews in Mathematical Physics, 1991, 03, 125-135.	1.7	23
30	The asymptotics of large constrained graphs. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 175001.	2.1	23
31	Relaxation of Local Thermal Deviations from Equilibrium. Journal of Mathematical Physics, 1971, 12, 2043-2046.	1.1	21
32	A Homeomorphism Invariant for Substitution Tiling Spaces. Geometriae Dedicata, 2002, 90, 153-182.	0.3	21
33	Structure of the Hard Sphere Solid. Physical Review Letters, 2005, 94, 015502.	7.8	20
34	Are there chaotic tilings?. Communications in Mathematical Physics, 1993, 152, 215-219.	2.2	19
35	Conjugacies for Tiling Dynamical Systems. Communications in Mathematical Physics, 2005, 254, 343-359.	2.2	19
36	Some remarks on the evolution of a SchrÃ¶dinger particle in an attractive 1/r2 potential. Journal of Mathematical Physics, 1975, 16, 544-547.	1.1	18

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37	The unstable chemical structure of quasicrystalline alloys. Physics Letters, Section A: General, Atomic and Solid State Physics, 1986, 119, 133-134.	2.1	17
38	Crystals and quasicrystals: A continuum model. Communications in Mathematical Physics, 1986, 105, 385-390.	2.2	17
39	On 2-Generator Subgroups of SO(3). Transactions of the American Mathematical Society, 1999, 351, 4469-4480.	0.9	17
40	Correlations in classical ground states. Journal of Statistical Physics, 1986, 43, 707-712.	1.2	15
41	Emergent Structures in Large Networks. Journal of Applied Probability, 2013, 50, 883-888.	0.7	15
42	Why solids are not really crystalline. Physical Review B, 1989, 39, 1950-1952.	3.2	14
43	Subgroups ofSO(3) Associated with Tilings. Journal of Algebra, 1998, 202, 611-633.	0.7	13
44	Permutations with fixed pattern densities. Random Structures and Algorithms, 2020, 56, 220-250.	1.1	13
45	Noncommutative mean ergodic theory. Communications in Mathematical Physics, 1971, 21, 291-302.	2.2	12
46	The dynamical instability of nonrelativistic many-body systems. Communications in Mathematical Physics, 1977, 54, 69-79.	2.2	12
47	Symmetries of Quasicrystals. Journal of Statistical Physics, 1999, 95, 827-833.	1.2	12
48	First order phase transition in a model of quasicrystals. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 255001.	2.1	12
49	A first-order phase transition between crystal phases in the shift model. Journal of Statistical Physics, 1982, 28, 473-478.	1.2	11
50	The isoperimetric problem for pinwheel tilings. Communications in Mathematical Physics, 1996, 177, 255-263.	2.2	11
51	Fluid-Solid Transition in a Hard-Core System. Physical Review Letters, 2006, 96, 025701.	7.8	11
52	The phases of large networks with edge and triangle constraints. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 435001.	2.1	11
53	An Algebraic Invariant for Substitution Tiling Systems. Geometriae Dedicata, 1998, 73, 21-37.	0.3	10
54	Optimally Dense Packings of Hyperbolic Space. Geometriae Dedicata, 2004, 104, 37-59.	0.3	10

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55	Random Loose Packing in Granular Matter. Journal of Statistical Physics, 2009, 135, 1-23.	1.2	10
56	THE THIRD LAW OF THERMODYNAMICS. Modern Physics Letters B, 1987, 01, 61-66.	1.9	9
57	Modelling Quasicrystals at Positive Temperature. Journal of Statistical Physics, 2010, 138, 465-475.	1.2	8
58	Random close packing in a granular model. Journal of Mathematical Physics, 2010, 51, 113302.	1.1	8
59	Sound speed in water-saturated glass beads as a function of frequency and porosity. Journal of the Acoustical Society of America, 2011, 129, EL101-EL107.	1.1	8
60	Average boundary conditions in Cauchy problems. Journal of Functional Analysis, 1976, 23, 23-32.	1.4	7
61	Crystalline symmetry and surface tension. Physica A: Statistical Mechanics and Its Applications, 1982, 113, 338-342.	2.6	7
62	Emergent Structures in Large Networks. Journal of Applied Probability, 2013, 50, 883-888.	0.7	7
63	Aperiodic Tilings, Ergodic Theory, and Rotations. , 1997, , 499-519.		7
64	Gentle perturbations. Communications in Mathematical Physics, 1971, 23, 189-198.	2.2	6
65	The Symmetry of Optimally Dense Packings. , 2006, , 197-207.		6
66	Homogeneous Crystallization in Cyclically Sheared Frictionless Grains. Physical Review Letters, 2020, 125, 258003.	7.8	6
67	Dynamics of limit models. Communications in Mathematical Physics, 1973, 33, 283-292.	2.2	5
68	Pointwise ergodic theory on operator algebras. Journal of Mathematical Physics, 1978, 19, 1983-1985.	1.1	5
69	Bipodal Structure in Oversaturated Random Graphs. International Mathematics Research Notices, 0, , rnw261.	1.0	5
70	Signal propagation in lattice models of quantum many-body systems. Communications in Mathematical Physics, 1978, 62, 159-166.	2.2	4
71	Aperiodic tilings in higher dimensions. Proceedings of the American Mathematical Society, 1995, 123, 3543-3548.	0.8	4
72	Relations in SO (3) Supported by Geodetic Angles. Discrete and Computational Geometry, 2000, 23, 453-463.	0.6	4

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73	The characterization of ground states. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 305001.	2.1	4
74	A symmetry breaking transition in the edge/triangle network model. Annales De L'Institut Henri Poincare (D) Combinatorics, Physics and Their Interactions, 2018, 5, 251-286.	1.1	4
75	Phases of Granular Matter. Journal of Statistical Physics, 2019, 175, 542-553.	1.2	4
76	Particle lattice models and the dynamical instability of many-body systems. Communications in Mathematical Physics, 1975, 44, 165-168.	2.2	3
77	Phases in large combinatorial systems. Annales De L'Institut Henri Poincare (D) Combinatorics, Physics and Their Interactions, 2018, 5, 287-308.	1.1	3
78	Phase Transitions in Finite Random Networks. Journal of Statistical Physics, 2020, 181, 305-328.	1.2	3
79	Automorphism of von Neumann algebras as point transformations. Proceedings of the American Mathematical Society, 1973, 39, 343-343.	0.8	2
80	Orbits of Orbs: Sphere Packing Meets Penrose Tilings. American Mathematical Monthly, 2004, 111, 137-149.	0.3	2
81	Dilatancy Transition in a Granular Model. Journal of Statistical Physics, 2011, 143, 215-225.	1.2	2
82	Ergodicity in von Neumann algebras. Pacific Journal of Mathematics, 1973, 48, 235-239.	0.5	2
83	Rigidity in Solids. Journal of Statistical Physics, 2011, 144, 1247-1255.	1.2	1
84	Conway and Aperiodic Tilings. Mathematical Intelligencer, 2021, 43, 15-20.	0.2	1
85	Title is missing!. American Mathematical Monthly, 2006, 113, 87.	0.3	0
86	The 96th Statistical Mechanics Conference. Applied Rheology, 2007, 17, 166-166.	5.2	0