Stephen Teitel

List of Publications by Year
in descending order

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95 papers	3,736 citations	159525 30 h-index	128225 60 g-index
95 all docs	95 docs citations	95 times ranked	1873 citing authors

#	Article	IF	Citations
1	Phase transtions in frustrated two-dimensionalXYmodels. Physical Review B, 1983, 27, 598-601.	1.1	459
2	Critical Scaling of Shear Viscosity at the Jamming Transition. Physical Review Letters, 2007, 99, 178001.	2.9	345
3	Josephson-Junction Arrays in Transverse Magnetic Fields. Physical Review Letters, 1983, 51, 1999-2002.	2.9	331
4	Melting of icosahedral gold nanoclusters from molecular dynamics simulations. Journal of Chemical Physics, 2005, 122, 214722.	1.2	194
5	Roughening and Facet Formation in Crystals. Physical Review Letters, 1983, 50, 2017-2020.	2.9	187
6	Phase Coherence and Nonequilibrium Behavior in Josephson Junction Arrays. Physical Review Letters, 1989, 62, 673-676.	2.9	124
7	Vortex-line fluctuations in model high-temperature superconductors. Physical Review B, 1993, 47, 359-372.	1.1	99
8	Finite-size scaling study of the three-dimensional classicalXYmodel. Physical Review B, 1989, 40, 9122-9125.	1.1	90
9	Vortex-line-lattice melting, vortex-line cutting, and entanglement in model high-Tcsuperconductors. Physical Review Letters, 1991, 66, 3301-3304.	2.9	90
10	Dynamical Phase Transitions in Hierarchical Structures. Physical Review Letters, 1985, 55, 2176-2179.	2.9	79
11	Critical scaling of shearing rheology at the jamming transition of soft-core frictionless disks. Physical Review E, 2011, 83, 030302.	0.8	77
12	Melting and equilibrium shape of icosahedral gold nanoparticles. Chemical Physics Letters, 2004, 394, 257-261.	1.2	73
13	Phase transitions in classical two-dimensional lattice Coulomb gases. Physical Review B, 1992, 46, 3247-3262.	1.1	71
14	Surface-Driven Bulk Reorganization of Gold Nanorods. Nano Letters, 2005, 5, 2174-2178.	4.5	69
15	Yielding dynamics of a Herschelâ€“Bulkley fluid: a critical-like fluidization behaviour. Soft Matter, 2012, 8, 4151.	1.2	68
16	Vortex-lattice melting in two-dimensional superconducting networks and films. Physical Review B, 1995, 51, 6551-6574.	1.1	65
17	Dynamics of vortex pairs in superfluid films. Physical Review B, 1979, 19, 1667-1670.	1.1	63
18	Finite-size scaling at the jamming transition: Corrections to scaling and the correlation-length critical exponent. Physical Review E, 2011, 83, 030303.	0.8	62

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19	Herschel-Bulkley Shearing Rheology Near the Athermal Jamming Transition. Physical Review Letters, 2012, 109, 108001.	2.9	58
20	Vortex lattice melting in 2D superconductors and Josephson arrays. Physical Review Letters, 1994, 73, 480-483.	2.9	56
21	Phase transitions and vortex-line entanglement in a model high-temperature superconductor. Physical Review B, 1994, 49, 4136-4144.	1.1	55
22	Disorder Driven Melting of the Vortex Line Lattice. Physical Review Letters, 2001, 87, 137001.	2.9	52
23	Glassiness, rigidity, and jamming of frictionless soft core disks. Physical Review E, 2011, 83, 031307.	0.8	49
24	Critical Behavior of the Meissner Transition in the Lattice London Superconductor. Physical Review Letters, 1998, 80, 1964-1967.	2.9	44
25	Universality of Jamming Criticality in Overdamped Shear-Driven Frictionless Disks. Physical Review Letters, 2014, 113, 148002.	2.9	39
26	New critical behavior in the dense two-dimensional classical Coulomb gas. Physical Review Letters, 1990, 64, 1483-1486.	2.9	38
27	Superconducting Coherence in a Vortex Line Liquid: Simulations with Finiteî». Physical Review Letters, 1995, 74, 2792-2795.	2.9	38
28	Glassiness versus Order in Densely Frustrated Josephson Arrays. Physical Review Letters, 1998, 80, 105-108.	2.9	37
29	Third sound and thermal conduction in thin4He films. Journal of Low Temperature Physics, 1982, 46, 77-96.	0.6	32
30	Dense two-dimensional classical Coulomb gas on a triangular lattice. Physical Review Letters, 1991, 66, 2100-2103.	2.9	31
31	Dissipation and Rheology of Sheared Soft-Core Frictionless Disks Below Jamming. Physical Review Letters, 2014, 112, .	2.9	27
32	Search for hyperuniformity in mechanically stable packings of frictionless disks above jamming. Physical Review E, 2015, 92, 052206.	0.8	27
33	Flux-flow resistance in frustrated Josephson-junction arrays. Physical Review Letters, 1990, 65, 2595-2598.	2.9	26
34	Critical scaling of Bagnold rheology at the jamming transition of frictionless two-dimensional disks. Physical Review E, 2016, 93, 052902.	0.8	26
35	Compression-driven jamming of athermal frictionless spherocylinders in two dimensions. Physical Review E, 2018, 97, 012905.	0.8	26
36	Resistive transitions in regular superconducting wire networks. Journal De Physique (Paris), Lettres, 1985, 46, 33-38.	2.8	23

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37	Orientational Ordering in Athermally Sheared, Aspherical, Frictionless Particles. Physical Review Letters, 2019, 122, 188002.	2.9	22
38	Driven diffusion in the two-dimensional lattice Coulomb gas: A model for flux flow in superconducting networks. Physical Review B, 1994, 50, 3149-3157.	1.1	20
39	Kink-antikink unbinding transition in the two-dimensional fully frustratedXYmodel. Physical Review B, 2005, 71, .	1.1	19
40	Quasistatic approximation to the scattering of elastic waves by a circular crack. Journal of Applied Physics, 1978, 49, 2599-2604.	1.1	18
41	Diffusion and dynamical transition in hierarchical systems. Physical Review B, 1987, 36, 684-698.	1.1	17
42	Structure of a dense vortex-line liquid in a model high-Tcsuperconductor. Physical Review B, 1992, 45, 5718-5721.	1.1	17
43	Helicity Modulus and Meissner Effect in a Fluctuating Type-II Superconductor. Physical Review Letters, 1994, 72, 2085-2088.	2.9	17
44	Athermal jamming versus thermalized glassiness in sheared frictionless particles. Physical Review E, 2013, 88, 010301.	0.8	17
45	Effect of random pinning sites on behavior in Josephson-junction arrays. Physical Review Letters, 1991, 67, 2894-2897.	2.9	15
46	Correlation Lengths in the Vortex Line Liquid of a High-TcSuperconductor. Physical Review Letters, 1999, 82, 2183-2186.	2.9	15
47	Determination of crack characteristics from the quasistatic approximation for the scattering of elastic waves. Journal of Applied Physics, 1978, 49, 5763-5767.	1.1	14
48	Phase diagram of the two-dimensional lattice Coulomb gas. Physical Review B, 1997, 55, 2756-2759.	1.1	14
49	Phase transitions in high-Tcsuperconductors and the anisotropic three-dimensional XY model. Physical Review B, 1997, 55, 11766-11777.	1.1	14
50	Uniformly frustrated xy models: Ground state configurations. Physica B: Condensed Matter, 1988, 152, 30-31.	1.3	13
51	Depinning Transition of a Two-Dimensional Vortex Lattice in a Commensurate Periodic Potential. Physical Review Letters, 2001, 86, 2126-2129.	2.9	13
52	Compression- and shear-driven jamming of U-shaped particles in two dimensions. Granular Matter, 2015, 17, 121-133.	1.1	13
53	Shear-driven flow of athermal, frictionless, spherocylinder suspensions in two dimensions: Stress, jamming, and contacts. Physical Review E, 2019, 100, 032906.	0.8	13
54	Positional Disorder in the Fully Frustrated Josephson Junction Array: Random Gaussian Phase Shifts in the Fully Frustrated 2DXYModel. Physical Review Letters, 1999, 82, 5313-5316.	2.9	12

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55	Monte Carlo simulation of Fickian diffusion in the critical region. Journal of Chemical Physics, 2002, 116, 3012-3017.	1.2	12
56	Shear banding, discontinuous shear thickening, and rheological phase transitions in athermally sheared frictionless disks. Physical Review E, 2017, 95, 052903.	0.8	12
57	Diffusion and localization in hierarchical potentials. Physical Review B, 1989, 39, 7045-7056.	1.1	11
58	The effect of dynamics on damage spreading in the two-dimensional classical XY model. Journal of Physics A, 1990, 23, L891-L894.	1.6	11
59	Three-dimensional randomXYmodel: Application to the superfluid transition ofHe4in porous media. Physical Review B, 1990, 41, 11388-11391.	1.1	11
60	Smallâ€signal ac conductivity and velocity overshoot in semiconductor materials. Journal of Applied Physics, 1982, 53, 5006-5012.	1.1	10
61	Effect of Surface Structure on Shape Transformations of Gold Nanorods. Journal of Computational and Theoretical Nanoscience, 2007, 4, 282-290.	0.4	10
62	Anomalous stress fluctuations in athermal two-dimensional amorphous solids. Physical Review E, 2017, 96, 032902.	0.8	9
63	Teitel and Domany Respond. Physical Review Letters, 1986, 56, 1755-1755.	2.9	8
64	Transition to anomalous relaxation: Localization in a hierarchical potential. Physical Review Letters, 1988, 60, 1154-1157.	2.9	8
65	Comment on â€œLongitudinal Superconductivity in Vortex-Line Phases: A Monte Carlo Studyâ€• Physical Review Letters, 1996, 76, 714-714.	2.9	8
66	Continuous-time Monte Carlo and spatial ordering in driven lattice gases: Application to driven vortices in periodic superconducting networks. Physical Review B, 2005, 72, .	1.1	8
67	Maximum entropy and the stress distribution in soft disk packings above jamming. Physical Review E, 2015, 92, 022207.	0.8	8
68	Helicity modulus and fluctuating type-II superconductors: Elastic approximation and numerical simulations. Physical Review B, 1997, 55, 15197-15222.	1.1	7
69	The distorted wave Born approximation: Application to elastodynamics. Journal of Applied Physics, 1981, 52, 4363-4370.	1.1	6
70	Roughness of a tilted anharmonic string at depinning. Physical Review E, 2004, 69, 062105.	0.8	6
71	Lattice Gas Dynamics: Application to Driven Vortices in Two Dimensional Superconductors. Physical Review Letters, 2004, 92, 247005.	2.9	6
72	Comment on â€œEffects of Point Defects on the Phase Diagram of Vortex States in High-TcSuperconductors in theBâˆ¥cAxisâ€• Physical Review Letters, 2005, 94, 219703; author reply 219704.	2.9	6

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73	Unified phase diagram for the three-dimensionalXYmodel of a point-disordered type-II superconductor. Physical Review B, 2009, 79, .	1.1	6
74	Statistics of conserved quantities in mechanically stable packings of frictionless disks above jamming. Physical Review E, 2015, 91, 022207.	0.8	6
75	Dynamic length scales in athermal, shear-driven jamming of frictionless disks in two dimensions. Physical Review E, 2020, 102, 042906.	0.8	6
76	Search for a vortex loop blowout transition in a type-II superconductor in a finite magnetic field. Physical Review B, 2003, 67, .	1.1	5
77	Effect of collisional elasticity on the Bagnold rheology of sheared frictionless two-dimensional disks. Physical Review E, 2017, 95, 012902.	0.8	5
78	Athermal shearing of frictionless cross-shaped particles of varying aspect ratio. Granular Matter, 2020, 22, 1.	1.1	5
79	Shear-driven flow of athermal, frictionless, spherocylinder suspensions in two dimensions: Particle rotations and orientational ordering. Physical Review E, 2020, 101, 032901.	0.8	5
80	Effect of columnar disorder on the superconducting transition of a type-II superconductor in zero applied magnetic field. Physical Review B, 2004, 70, .	1.1	4
81	The Two-Dimensional Fully Frustrated XY Model. , 2013, , 201-235.		4
82	Pressure distribution and critical exponent in statically jammed and shear-driven frictionless disks. Physical Review E, 2014, 89, 022201.	0.8	4
83	Critical scaling of compression-driven jamming of athermal frictionless spheres in suspension. Physical Review E, 2021, 103, L040901.	0.8	4
84	Shear-driven flow of athermal, frictionless, spherocylinder suspensions in two dimensions: Spatial structure and correlations. Physical Review E, 2020, 101, 032907.	0.8	3
85	Vortex Line Ordering in the Driven Three-Dimensional Vortex Glass. Physical Review Letters, 2006, 97, 267002.	2.9	2
86	Publisherâ€™s Note: Glassiness, rigidity, and jamming of frictionless soft core disks [Phys. Rev. E83, 031307 (2011)]. Physical Review E, 2011, 83, .	0.8	2
87	Depletion forces in athermally sheared mixtures of frictionless disks and rods in two dimensions. Physical Review E, 2020, 102, 042908.	0.8	2
88	Vortex lattice melting in 2D superconducting networks. Physica B: Condensed Matter, 1996, 222, 287-292.	1.3	1
89	Equilibrium phase transitions in Josephson junction arrays. , 1997, , 342-375.		1
90	Universality of stress-anisotropic and stress-isotropic jamming of frictionless spheres in three dimensions: Uniaxial versus isotropic compression. Physical Review E, 2022, 105, 024902.	0.8	1

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91	Interface models and the bulk phase transition of Ising systems. Physical Review B, 1985, 32, 6110-6112.	1.1	0
92	Thermodynamics of a heavy-ion-irradiated superconductor: The zero-field transition. Physical Review B, 2007, 75, .	1.1	0
93	Superfluid transition in a correlated defect network. Physical Review B, 2013, 87, .	1.1	0
94	Localization as a Mechanism for the Transition to Anomalous Relaxation. NATO ASI Series Series B: Physics, 1990, , 295-300.	0.2	0
95	Vortex Line Fluctuations and Phase Transitions in Type II Superconductors. , 1997, , 231-238.		0