Gilles Tarjus

List of Publications by Year
in descending order

Version: 2024-02-01

89 papers	4,165 citations	101543 36 h-index	114465 63 g-index
90 all docs	90 docs citations	90 times ranked	2360 citing authors

#	Article	IF	Citations
1	A thermodynamic theory of supercooled liquids. Physica A: Statistical Mechanics and Its Applications, 1995, 219, 27-38.	2.6	388
2	Breakdown of the Stokesâ€“Einstein relation in supercooled liquids. Journal of Chemical Physics, 1995, 103, 3071-3073.	3.0	314
3	Random critical point separates brittle and ductile yielding transitions in amorphous materials. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 6656-6661.	7.1	195
4	Quenched disorder and vestigial nematicity in the pseudogap regime of the cuprates. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 7980-7985.	7.1	191
5	Supercooled liquids and the glass transition: Temperature as the control variable. Journal of Chemical Physics, 1998, 109, 8010-8015.	3.0	178
6	Nonperturbative Effect of Attractive Forces in Viscous Liquids. Physical Review Letters, 2009, 103, 170601.	7.8	139
7	Fitting of viscosity: Distinguishing the temperature dependences predicted by various models of supercooled liquids. Physical Review E, 1996, 53, 751-758.	2.1	124
8	In search of a theory of supercooled liquids. Nature Materials, 2008, 7, 831-833.	27.5	110
9	Random sequential addition: A distribution function approach. Journal of Statistical Physics, 1991, 63, 167-202.	1.2	93
10	The role of attractive forces in viscous liquids. Journal of Chemical Physics, 2011, 134, 214503.	3.0	86
11	A Particle-Level Model of Irreversible Protein Adsorption with a Postadsorption Transition. Journal of Colloid and Interface Science, 1998, 207, 317-323.	9.4	85
12	Geometrical Frustration and Static Correlations in a Simple Glass Former. Physical Review Letters, 2012, 108, 035701.	7.8	85
13	Temperature, density, and pressure dependence of relaxation times in supercooled liquids. Journal of Chemical Physics, 2002, 116, 5033.	3.0	83
14	Nonperturbative Functional Renormalization Group for Random-Field Models: The Way Out of Dimensional Reduction. Physical Review Letters, 2004, 93, 267008.	7.8	75
15	Supersymmetry and Its Spontaneous Breaking in the Random Field Ising Model. Physical Review Letters, 2011, 107, 041601.	7.8	74
16	Unified Picture of Ferromagnetism, Quasi-Long-Range Order, and Criticality in Random-Field Models. Physical Review Letters, 2006, 96, 087202.	7.8	73
17	Critical test of the mode-coupling theory of the glass transition. Physical Review E, 2010, 82, 031502.	2.1	71
18	A kinetic model of partially reversible protein adsorption. Journal of Chemical Physics, 1997, 106, 761-770.	3.0	69

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19	Growing Static and Dynamic Length Scales in a Glass-Forming Liquid. Physical Review Letters, 2010, 104, 065701.	7.8	68
20	Decorrelation of the static and dynamic length scales in hard-sphere glass formers. Physical Review E, 2013, 87, 042305.	2.1	67
21	Tuning the Fragility of a Glass-Forming Liquid by Curving Space. Physical Review Letters, 2008, 101, 155701.	7.8	60
22	On the correlation between fragility and stretching in glass-forming liquids. Journal of Physics Condensed Matter, 2007, 19, 076102.	1.8	58
23	Nonperturbative functional renormalization group for random field models and related disordered systems. I. Effective average action formalism. Physical Review B, 2008, 78, .	3.2	55
24	Nonperturbative functional renormalization group for random field models and related disordered systems. II. Results for the random fieldO(N)model. Physical Review B, 2008, 78, .	3.2	55
25	Nonperturbative functional renormalization group for random field models and related disordered systems. IV. Supersymmetry and its spontaneous breaking. Physical Review B, 2012, 85, .	3.2	54
26	Random-Field-like Criticality in Glass-Forming Liquids. Physical Review Letters, 2014, 112, 175701.	7.8	50
27	The viscous slowing down of supercooled liquids as a temperature-controlled super-Arrhenius activated process: a description in terms of frustration-limited domains. Journal of Physics Condensed Matter, 2000, 12, 6497-6508.	1.8	49
28	Irreversible adsorption of macromolecules at a liquidâ€“solid interface: Theoretical studies of the effects of conformational change. Journal of Chemical Physics, 1994, 101, 7064-7073.	3.0	48
29	Temperature versus density effects in glassforming liquids and polymers: A scaling hypothesis and its consequences. Journal of Non-Crystalline Solids, 2006, 352, 4888-4894.	3.1	48
30	SuperArrhenius character of supercooled glass-forming liquids. Journal of Non-Crystalline Solids, 1998, 235-237, 86-100.	3.1	46
31	A heterogeneous picture of Î± relaxation for fragile supercooled liquids. Journal of Chemical Physics, 2000, 112, 10368-10378.	3.0	46
32	Nonperturbative functional renormalization group for random field models and related disordered systems. III. Superfield formalism and ground-state dominance. Physical Review B, 2012, 85, .	3.2	46
33	Point-to-set lengths, local structure, and glassiness. Physical Review E, 2016, 94, 032605.	2.1	43
34	The Kauzmann paradox interpreted via the theory of frustration- limited-domains. Journal of Chemical Physics, 1998, 109, 5481-5486.	3.0	41
35	Spinodals with Disorder: From Avalanches in Random Magnets to Glassy Dynamics. Physical Review Letters, 2016, 116, 145701.	7.8	40
36	Can the glass transition be explained without a growing static length scale?. Journal of Chemical Physics, 2019, 150, 094501.	3.0	38

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37	H2O below 277 K:Â A Novel Pictureâ€,â€¡. Journal of Physical Chemistry B, 2001, 105, 6620-6627.	2.6	36
38	Renormalization Group Analysis of the Random First-Order Transition. Physical Review Letters, 2011, 106, 115705.	7.8	36
39	Geometrical frustration and static correlations in hard-sphere glass formers. Journal of Chemical Physics, 2013, 138, 12A515.	3.0	36
40	From Glass Formation to Icosahedral Ordering by Curving Three-Dimensional Space. Physical Review Letters, 2017, 118, 215501.	7.8	33
41	Two-loop functional renormalization group of the random field and random anisotropyO(N)models. Physical Review B, 2006, 74, .	3.2	32
42	Kinetics of irreversible adsorption with a particle conformational change: A density expansion approach. Physical Review E, 1996, 53, 785-798.	2.1	28
43	Criticality of the random field Ising model in and out of equilibrium: A nonperturbative functional renormalization group description. Physical Review B, 2018, 97, .	3.2	28
44	Study of the integrated intensity of depolarized light scattering spectra of tetrahedral molecules. Journal of Chemical Physics, 1990, 93, 2246-2257.	3.0	27
45	A Viewpoint, Model and Theory for Supercooled Liquids. Progress of Theoretical Physics Supplement, 1997, 126, 289-299.	0.1	27
46	Reexamination of the depolarized-light-scattering spectra of glass-forming liquids. Physical Review E, 1994, 50, 1711-1716.	2.1	26
47	Observed anomalies in supercooled liquids described by frustration-limited domain theory. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1998, 77, 245-256.	0.6	25
48	Apparent polyamorphism and frustration. Journal of Non-Crystalline Solids, 2002, 307-310, 630-636.	3.1	25
49	Role of fluctuations in the yielding transition of two-dimensional glasses. Physical Review Research, 2020, 2, .	3.6	24
50	Random-field Ising and O(N) models: theoretical description through the functional renormalization group. European Physical Journal B, 2020, 93, 1.	1.5	23
51	Molecular rattling in twoâ€dimensional fluids: Simulations and theory. Journal of Chemical Physics, 1992, 96, 593-604.	3.0	22
52	Are defect models consistent with the entropy and specific heat of glass formers?. Journal of Chemical Physics, 2005, 123, 044510.	3.0	22
53	Structure and dynamics of topological defects in a glassy liquid on a negatively curved manifold. Physical Review E, 2010, 81, 031504.	2.1	22
54	Distribution function analysis of the structure of depleted particle configurations. Physical Review E, 1997, 56, R1299-R1301.	2.1	18

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55	Bootstrap Percolation and Kinetically Constrained Models on Hyperbolic Lattices. Journal of Statistical Physics, 2010, 138, 411-430.	1.2	17
56	Avalanches and Dimensional Reduction Breakdown in the Critical Behavior of Disordered Systems. Physical Review Letters, 2013, 110, 135703.	7.8	17
57	Fragility of the mean-field scenario of structural glasses for disordered spin models in finite dimensions. Physical Review B, 2013, 87, .	3.2	16
58	Glassy dynamics of dense particle assemblies on a spherical substrate. Journal of Chemical Physics, 2018, 148, 164501.	3.0	16
59	Random field Ising-like effective theory of the glass transition. II. Finite-dimensional models. Physical Review B, 2018, 98, .	3.2	16
60	Dynamics of a monodisperse Lennard-Jones system on a sphere. Molecular Physics, 2014, 112, 1330-1335.	1.7	15
61	Random-field Ising-like effective theory of the glass transition. I. Mean-field models. Physical Review B, 2018, 98, .	3.2	15
62	Activated dynamic scaling in the random-field Ising model: A nonperturbative functional renormalization group approach. Physical Review B, 2015, 91, .	3.2	14
63	Dimensional reduction and its breakdown in the three-dimensional long-range random-field Ising model. Physical Review B, 2013, 88, .	3.2	13
64	Enhanced saturation coverages in adsorptionâ€“desorption processes. Journal of Chemical Physics, 2000, 112, 1483-1488.	3.0	12
65	Random-field Ising model criticality in a glass-forming liquid. Physical Review E, 2020, 102, 042129.	2.1	12
66	Role of fluctuations in the phase transitions of coupled plaquette spin models of glasses. SciPost Physics, 2016, 1, .	4.9	12
67	Critical behaviour of the random-field Ising model with long-range interactions in one dimension. Journal of Statistical Mechanics: Theory and Experiment, 2014, 2014, P10017.	2.3	11
68	Statistical mechanics of coupled supercooled liquids in finite dimensions. SciPost Physics, 2022, 12, .	4.9	10
69	Response to: â€œComment on â€˜Disentangling density and temperature effects in the viscous slowing down of glassforming liquidsâ€™â€•[J. Chem. Phys. 121, 11503 (2004)]. Journal of Chemical Physics, 2004, 121, 11505.	3.1	9
70	Thermodynamics and structure of simple liquids in the hyperbolic plane. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P04022.	2.3	9
71	Same universality class for the critical behavior in and out of equilibrium in a quenched random field. Physical Review B, 2014, 89, .	3.2	9
72	Mode-coupling approach for the slow dynamics of a liquid on a spherical substrate. Journal of Chemical Physics, 2015, 143, 084505.	3.0	9

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73	On the overlap between configurations in glassy liquids. Journal of Chemical Physics, 2020, 153, 224502.	3.0	9
74	Fixed points and their stability in the functional renormalization group of random field models. Journal of Statistical Mechanics: Theory and Experiment, 2014, 2014, P06010.	2.3	8
75	Static self-induced heterogeneity in glass-forming liquids: Overlap as a microscope. Journal of Chemical Physics, 2022, 156, .	3.0	8
76	Hierarchical reference theory of critical fluids in disordered porous media. Molecular Physics, 2011, 109, 2863-2887.	1.7	7
77	Phase diagram and criticality of the random anisotropy model in the large- N limit. Physical Review B, 2016, 94, .	3.2	7
78	Avalanches and perturbation theory in the random-field Ising model. Journal of Statistical Mechanics: Theory and Experiment, 2016, 2016, 023207.	2.3	7
79	Some consequences of the Î±/Î² bifurcation of relaxations in supercooled liquids. Journal of Non-Crystalline Solids, 1994, 172-174, 61-68.	3.1	6
80	Comment on â€œCorrelation between Dynamic Heterogeneity and Medium-Range Order in Two-Dimensional Glass-Forming Liquidsâ€• Physical Review Letters, 2008, 100, 099601; discussion 99602.	7.8	5
81	Benchmarking the nonperturbative functional renormalization group approach on the random elastic manifold model in and out of equilibrium. Journal of Statistical Mechanics: Theory and Experiment, 2019, 2019, 103301.	2.3	5
82	Dimensional reduction breakdown and correction to scaling in the random-field Ising model. Physical Review E, 2020, 102, 062154.	2.1	5
83	A perspective on the fragility of glass-forming liquids. Journal of Non-Crystalline Solids: X, 2022, 14, 100100.	1.2	5
84	Energy Landscapes Composed of Continuous Intertwining Equipotential Ribbonsâ€. Journal of Physical Chemistry B, 2001, 105, 11854-11858.	2.6	4
85	Avoided criticality and slow relaxation in frustrated two-dimensional models. Physical Review B, 2017, 96, .	3.2	4
86	Rare events and disorder control the brittle yielding of well-annealed amorphous solids. Physical Review Research, 2022, 4, .	3.6	4
87	A Viewpoint, Model and Theory for Supercooled Liquids. Progress of Theoretical Physics Supplement, 2013, 126, 289-299.	0.1	3
88	Connection between integrated intensities of depolarized-light-scattering spectra and mesoscopic order in liquids. Physical Review E, 1993, 47, 4210-4214.	2.1	2
89	Interaction-Induced Spectra as a Tool for the Study of Structure in Supercooled Liquids and Glasses. , 1995, , 235-248.		1