Juan J Ruiz-Lorenzo

List of Publications by Year
in descending order

114 papers	3,438 citations	126907 33 h-index	149698 56 g-index
114 all docs	114 docs citations	114 times ranked	1130 citing authors

#	Article	IF	Citations
1	Critical behavior of the three-dimensional Ising spin glass. Physical Review B, 2000, 62, 14237-14245.	3.2	217
2	Critical exponents of the three-dimensional diluted Ising model. Physical Review B, 1998, 58, 2740-2747.	3.2	202
3	Title is missing!. Journal of Statistical Physics, 2000, 98, 973-1074.	1.2	173
4	Scaling corrections: site percolation and Ising model in three dimensions. Journal of Physics A, 1999, 32, 1-13.	1.6	162
5	Numerical Evidence for Spontaneously Broken Replica Symmetry in 3D Spin Glasses. Physical Review Letters, 1996, 76, 843-846.	7.8	118
6	Violation of the fluctuation-dissipation theorem in finite-dimensional spin glasses. Journal of Physics A, 1998, 31, 2611-2620.	1.6	116
7	Phase structure of the three-dimensional Edwards-Anderson spin glass. Physical Review B, 1998, 58, 14852-14863.	3.2	97
8	Dilute One-Dimensional Spin Glasses with Power Law Decaying Interactions. Physical Review Letters, 2008, 101, 107203.	7.8	85
9	An In-Depth View of the Microscopic Dynamics of Ising Spin Glasses at Fixed Temperature. Journal of Statistical Physics, 2009, 135, 1121-1158.	1.2	83
10	Critical parameters of the three-dimensional Ising spin glass. Physical Review B, 2013, 88, .	3.2	82
11	Nonequilibrium Spin-Glass Dynamics from Picoseconds to a Tenth of a Second. Physical Review Letters, 2008, 101, 157201.	7.8	77
12	Janus: An FPGA-Based System for High-Performance Scientific Computing. Computing in Science and Engineering, 2009, 11, 48-58.	1.2	75
13	Nature of the spin-glass phase at experimental length scales. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P06026.	2.3	70
14	Ising Spin-Glass Transition in a Magnetic Field Outside the Limit of Validity of Mean-Field Theory. Physical Review Letters, 2009, 103, 267201.	7.8	65
15	Ising exponents in the two-dimensional site-diluted Ising model. Journal of Physics A, 1997, 30, 8379-8383.	1.6	63
16	The four-dimensional site-diluted Ising model: A finite-size scaling study. Nuclear Physics B, 1998, 512, 681-701.	2.5	60
17	Measures of critical exponents in the four-dimensional site percolation. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1997, 400, 346-351.	4.1	59
18	The Mpemba effect in spin glasses is a persistent memory effect. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 15350-15355.	7.1	59

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19	Simulating spin systems on IANUS, an FPGA-based computer. Computer Physics Communications, 2008, 178, 208-216.	7.5	57
20	Thermodynamic glass transition in a spin glass without time-reversal symmetry. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 6452-6456.	7.1	54
21	Equilibrium and off-equilibrium simulations of the Gaussian spin glass. Journal of Physics A, 1996, 29, 7943-7957.	1.6	52
22	Critical properties of the Ising model on Sierpinski fractals: A finite-size scaling-analysis approach. Physical Review B, 1998, 58, 14387-14396.	3.2	50
23	Critical behavior in the site-diluted three-dimensional three-state Potts model. Physical Review B, 2000, 61, 3215-3218.	3.2	50
24	Off-equilibrium dynamics at very low temperatures in three-dimensional spin glasses. Journal of Physics A, 2000, 33, 2373-2382.	1.6	44
25	Deterministic chaos in the elastic pendulum: A simple laboratory for nonlinear dynamics. American Journal of Physics, 1992, 60, 73-79.	0.7	43
26	Weak first order transitions. The two-dimensional Potts model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1992, 277, 485-490.	4.1	43
27	Universality in the off-equilibrium critical dynamics of the three-dimensional diluted Ising model. Physical Review E, 1999, 60, 5198-5201.	2.1	43
28	Janus II: A new generation application-driven computer for spin-system simulations. Computer Physics Communications, 2014, 185, 550-559.	7.5	40
29	The three-dimensional Ising spin glass in an external magnetic field: the role of the silent majority. Journal of Statistical Mechanics: Theory and Experiment, 2014, 2014, P05014.	2.3	38
30	Scaling above the upper critical dimension in Ising models. Physical Review B, 1996, 54, R3698-R3701.	3.2	37
31	Summability of the perturbative expansion for a zero-dimensional disordered spin model. Journal of Physics A, 2000, 33, 841-850.	1.6	37
32	Static versus Dynamic Heterogeneities in the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>D</mml:mi><mml:mo>=</mml:mo><mml:mn>3</mml:mn></mml:math>Edwards-Anderson-Ising Spin Glass. Physical Review Letters, 2010, 105, 177202.	7.8	37
33	First-Order Transition in a Three-Dimensional Disordered System. Physical Review Letters, 2008, 100, 057201.	7.8	33
34	Dynamics of the four-dimensional spin glass in a magnetic field. Physical Review B, 1998, 57, 13617-13623.	3.2	31
35	Matching Microscopic and Macroscopic Responses in Glasses. Physical Review Letters, 2017, 118, 157202.	7.8	31
36	Dynamical transition in the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>D</mml:mi><mml:mo>=</mml:mo><mml:mn>3</mml:m spin glass in an external magnetic field. Physical Review E, 2014, 89, 032140.	2.1	30

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37	Aging Rate of Spin Glasses from Simulations Matches Experiments. Physical Review Letters, 2018, 120, 267203.	7.8	29
38	Generalized off-equilibrium fluctuation-dissipation relations in random Ising systems. European Physical Journal B, 1999, 11, 317.	1.5	28
39	Scaling analysis of the site-diluted Ising model in two dimensions. Physical Review E, 2008, 78, 031134.	2.1	27
40	Small window overlaps are effective probes of replica symmetry breaking in three-dimensional spin glasses. Journal of Physics A, 1998, 31, L481-L487.	1.6	26
41	Numerical Evidence of a Critical Line in the 4 <i>d</i> Ising Spin Glass. Europhysics Letters, 1993, 21, 495-499.	2.0	25
42	How (super) rough is the glassy phase of a crystalline surface with a disordered substrate?. Journal of Physics A, 1995, 28, 3975-3984.	1.6	25
43	Ianus: an adaptive FPGA computer. Computing in Science and Engineering, 2006, 8, 41-49.	1.2	24
44	Simulation of three-dimensional Ising spin glass model using three replicas: study of Binder cumulants. Journal of Physics A, 1996, 29, 4337-4345.	1.6	23
45	Mean field dynamical exponents in finite-dimensional Ising spin glass. Journal of Physics A, 1997, 30, 7115-7131.	1.6	23
46	Generalized off-equilibrium fluctuation-dissipation relations in random Ising systems. European Physical Journal B, 1999, 11, 317-325.	1.5	23
47	A statics-dynamics equivalence through the fluctuationâ€“dissipation ratio provides a window into the spin-glass phase from nonequilibrium measurements. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 1838-1843.	7.1	23
48	The U(1)-Higgs model: critical behaviour in the confining-Higgs region. Nuclear Physics B, 1993, 405, 574-592.	2.5	22
49	Target problem with evanescent subdiffusive traps. Physical Review E, 2006, 74, 046119.	2.1	22
50	3D spin glass and 2D ferromagneticXYmodel: a comparison. Journal of Physics A, 1997, 30, 7337-7347.	1.6	21
51	Reconfigurable computing for Monte Carlo simulations: Results and prospects of the Janus project. European Physical Journal: Special Topics, 2012, 210, 33-51.	2.6	21
52	Universal critical behavior of the two-dimensional Ising spin glass. Physical Review B, 2016, 94, .	3.2	21
53	Comment on â€œEvidence of Non-Mean-Field-Like Low-Temperature Behavior in the Edwards-Anderson Spin-Glass Modelâ€• Physical Review Letters, 2013, 110, 219701.	7.8	20
54	Weak first-order transition in the three-dimensional site-diluted Ising antiferromagnet in a magnetic field. Physical Review B, 2007, 76, .	3.2	19

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55	The de Ahneida-Thouless line in the four dimensional Ising spin glass. Journal De Physique, I, 1993, 3, 2207-2227.	1.2	18
56	Sample-to-sample fluctuations of the overlap distributions in the three-dimensional Edwards-Anderson spin glass. Physical Review B, 2011, 84, .	3.2	17
57	Griffiths singularities in the two-dimensional diluted Ising model. Journal of Physics A, 1997, 30, 485-493.	1.6	15
58	Spin glass phase in the four-state three-dimensional Potts model. Physical Review B, 2009, 79, .	3.2	14
59	Dynamic variational study of chaos: spin glasses in three dimensions. Journal of Statistical Mechanics: Theory and Experiment, 2018, 2018, 033302.	2.3	14
60	On the four-dimensional diluted Ising model. Journal of Physics A, 1995, 28, L395-L401.	1.6	13
61	Logarithmic corrections for spin glasses, percolation and Lee-Yang singularities in six dimensions. Journal of Physics A, 1998, 31, 8773-8787.	1.6	13
62	Temperature chaos is present in off-equilibrium spin-glass dynamics. Communications Physics, 2021, 4, .	5.3	13
63	Numerical simulations of the random phase sine-Gordon model. Journal of Physics A, 1995, 28, L577-L583.	1.6	12
64	Self-averaging in the three-dimensional site diluted Heisenberg model at the critical point. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, P06014-P06014.	2.3	12
65	Scaling Law Describes the Spin-Glass Response in Theory, Experiments, and Simulations. Physical Review Letters, 2020, 125, 237202.	7.8	12
66	Bond diluted Levy spin-glass model and a new finite-size scaling method to determine a phase transition. Philosophical Magazine, 2011, 91, 1917-1925.	1.6	11
67	Universal behavior of crystalline membranes: Crumpling transition and Poisson ratio of the flat phase. Physical Review E, 2016, 93, 022111.	2.1	11
68	Comment on â€œEvidence for the Droplet Picture of Spin Glassesâ€• Physical Review Letters, 1999, 82, 5176-5176.	7.8	10
69	Numerical test of the Cardy-Jacobsen conjecture in the site-diluted Potts model in three dimensions. Physical Review B, 2012, 86, .	3.2	10
70	An experiment-oriented analysis of 2D spin-glass dynamics: a twelve time-decades scaling study. Journal of Physics A: Mathematical and Theoretical, 2019, 52, 224002.	2.1	10
71	Spin-glass dynamics in the presence of a magnetic field: exploration of microscopic properties. Journal of Statistical Mechanics: Theory and Experiment, 2021, 2021, 033301.	2.3	10
72	Study of the phase transition in the 3D Ising spin glass from out-of-equilibrium numerical simulations. Journal of Physics A, 2006, 39, 8567-8577.	1.6	9

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73	Mean field model of coagulation and annihilation reactions in a medium of quenched traps: Subdiffusion. Physical Review E, 2009, 79, 051113.	2.1	9
74	Monitoring the Solar Radius from the Royal Observatory of the Spanish Navy since 1773. Solar Physics, 2016, 291, 1599-1612.	2.5	9
75	Numerical Construction of the Aizenman-Wehr Metastate. Physical Review Letters, 2017, 119, 037203.	7.8	9
76	Critical behavior of three-dimensional disordered Potts models with many states. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P05002.	2.3	8
77	Off-equilibrium fluctuation-dissipation relations in the3dIsing spin glass in a magnetic field. Physical Review B, 2003, 67, .	3.2	7
78	Phase diagram of the bosonic double-exchange model. Physical Review B, 2005, 71, .	3.2	7
79	Simulations for trapping reactions with subdiffusive traps and subdiffusive particles. Journal of Physics Condensed Matter, 2007, 19, 065120.	1.8	7
80	Microcanonical finite-size scaling in second-order phase transitions with diverging specific heat. Physical Review E, 2009, 80, 051105.	2.1	7
81	Out-of-equilibrium 2D Ising spin glass: almost, but not quite, a free-field theory. Journal of Statistical Mechanics: Theory and Experiment, 2018, 2018, 103301.	2.3	7
82	Kardarâ€"Parisiâ€"Zhang universality class for the critical dynamics of reactionâ€"diffusion fronts. Journal of Statistical Mechanics: Theory and Experiment, 2020, 2020, 023203.	2.3	7
83	The confining-Higgs phase transition in U(1)-Higgs LGT. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1992, 296, 154-158.	4.1	6
84	Crossovers in the two-dimensional Ising spin glass with ferromagnetic next-nearest-neighbour interactions. Journal of Physics A, 1998, 31, 4657-4668.	1.6	6
85	The Coulomb-Higgs phase transition in Z8 and q = 8 U(1)-Higgs models. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1993, 312, 305-309.	4.1	5
86	Proposal of a renormalization group transformation for lattice field theories. Physical Review D, 1994, 50, 5935-5943.	4.7	5
87	Phase transition in tensionless surfaces. Biophysical Chemistry, 2005, 115, 187-193.	2.8	5
88	Infinite volume extrapolation in the one-dimensional bond diluted Levy spin-glass model near its lower critical dimension. Physical Review B, 2015, 91, .	3.2	5
89	Dimensional crossover in the aging dynamics of spin glasses in a film geometry. Physical Review B, 2019, 100, .	3.2	5
90	Tempering Dynamics and Relaxation Times in the 3D Ising Model. Journal De Physique, I, 1995, 5, 1247-1254.	1.2	5

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91	New evidence for super-roughening in crystalline surfaces with a disordered substrate. Journal of Physics A, 1997, 30, 3771-3778.	1.6	4
92	Study of a microcanonical algorithm on the Â±J spin glass model in d=3. Computer Physics Communications, 2000, 125, 210-220.	7.5	4
93	Low T dynamical properties of spin glasses smoothly extrapolate to T $equal$ 0. Journal of Physics A, 2002, 35, 6805-6814.	1.6	4
94	Single tensionless transition in the Laplacian roughening model. Physical Review E, 2006, 73, 015103.	2.1	4
95	Coagulation reactions in low dimensions: Revisiting subdiffusiveA+Areactions in one dimension. Physical Review E, 2009, 80, 051114.	2.1	4
96	Dynamical generation of a gauge symmetry in the double-exchange model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2003, 560, 140-148.	4.1	3
97	Site-diluted Ising model in four dimensions. Physical Review E, 2009, 80, 031135.	2.1	3
98	Universal amplitude ratios in the Ising model in three dimensions. Journal of Statistical Mechanics: Theory and Experiment, 2011, 2011, P09019.	2.3	3
99	Scaling behavior of the Heisenberg model in three dimensions. Physical Review E, 2013, 88, 062117.	2.1	3
100	Numerical study of barriers and valleys in the free-energy landscape of spin glasses. Journal of Physics A: Mathematical and Theoretical, 2019, 52, 134002.	2.1	3
101	Computation of the dynamic critical exponent of the three-dimensional Heisenberg model. Physical Review E, 2019, 100, 062117.	2.1	3
102	An FPGA-Based Supercomputer for Statistical Physics: The Weird Case of Janus. , 2013, , 481-506.		3
103	Spreading fronts of wetting liquid droplets: Microscopic simulations and universal fluctuations. Physical Review E, 2022, 105, .	2.1	3
104	THE COULOMB-HIGGS PHASE TRANSITION OF THE U(1)-HIGGS MODEL. International Journal of Modern Physics C, 1994, 05, 343-345.	1.7	2
105	Numerical study of the overlap Leeâ€"Yang singularities in the three-dimensional Edwardsâ€"Anderson model. Journal of Statistical Mechanics: Theory and Experiment, 2013, 2013, P02031.	2.3	2
106	A numerical study of planar arrays of correlated spin islands. European Physical Journal B, 2016, 89, 1.	1.5	2
107	Spin Glasses in a Field Show a Phase Transition Varying the Distance among Real Replicas (And How to) Tj ETQq1 1 0.784314 rgBT /Ov	2.2	2
108	Revisiting (logarithmic) scaling relations using renormalization group. Condensed Matter Physics, 2017, 20, 13601.	0.7	2

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109	Numerical test of the replica-symmetric Hamiltonian for correlations of the critical state of spin glasses in a field. Physical Review E, 2022, 105, .	2.1	2
110	Polyakov loops and finite-size effects of hadron masses in full lattice QCD. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1995, 345, 49-54.	4.1	1
111	Finite-size scaling of the d = 4 site-diluted Ising model. Nuclear Physics, Section B, Proceedings Supplements, 1998, 63, 625-627.	0.4	1
112	Numerical simulations of the random phase sineâ€“Gordon model and renormalization group predictions. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, P01003-P01003.	2.3	1
113	Nonequilibrium spin glass dynamics with Janus. , 2009, , .		1
114	First Order Phase Transition in a 3D disordered system. , 2008, , .		0