Luis Antonio Fernandez

List of Publications by Year
in descending order

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132	3,715	101384	149479
papers	citations	36 h-index	56 g-index

132	132	132	1607
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Critical behavior of the three-dimensional Ising spin glass. Physical Review B, 2000, 62, 14237-14245.	1.1	217
2	Critical exponents of the three-dimensional diluted Ising model. Physical Review B, 1998, 58, 2740-2747.	1.1	202
3	Scaling corrections: site percolation and Ising model in three dimensions. Journal of Physics A, 1999, 32, 1-13.	1.6	162
4	Finite size effects on measures of critical exponents in d = 3 O(N) models. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1996, 387, 125-131.	1.5	125
5	Order of the Deconfining Phase Transition in Pure-Gauge QCD. Physical Review Letters, 1988, 61, 1545-1548.	2.9	111
6	Hybrid Monte Carlo algorithm for the double exchange model. Nuclear Physics B, 2001, 596, 587-610.	0.9	106
7	An In-Depth View of the Microscopic Dynamics of Ising Spin Glasses at Fixed Temperature. Journal of Statistical Physics, 2009, 135, 1121-1158.	0.5	83
8	Critical parameters of the three-dimensional Ising spin glass. Physical Review B, 2013, 88, .	1.1	82
9	Nonequilibrium Spin-Glass Dynamics from Picoseconds to a Tenth of a Second. Physical Review Letters, 2008, 101, 157201.	2.9	77
10	Janus: An FPGA-Based System for High-Performance Scientific Computing. Computing in Science and Engineering, 2009, 11, 48-58.	1.2	75
11	Phase transition in the three dimensional Heisenberg spin glass: Finite-size scaling analysis. Physical Review B, 2009, 80, .	1.1	73
12	New universality class in three dimensions?: the antiferromagnetic RP2 model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1996, 378, 207-212.	1.5	71
13	Nature of the spin-glass phase at experimental length scales. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P06026.	0.9	70
14	Equilibrium Fluid-Solid Coexistence of Hard Spheres. Physical Review Letters, 2012, 108, 165701.	2.9	69
15	Phase diagram and influence of defects in the double perovskites. Physical Review B, 2003, 67, .	1.1	66
16	Ising exponents in the two-dimensional site-diluted Ising model. Journal of Physics A, 1997, 30, 8379-8383.	1.6	63
17	The four-dimensional site-diluted Ising model: A finite-size scaling study. Nuclear Physics B, 1998, 512, 681-701.	0.9	60
18	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.	1.5	59

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19	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.	3.3	59
20	The hadronic mass spectrum in quenched lattice QCD: Results at Î² = 5.7 and Î² = 6.0. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1988, 214, 115-119.	1.5	57
21	Simulating spin systems on IANUS, an FPGA-based computer. Computer Physics Communications, 2008, 178, 208-216.	3.0	57
22	The hadronic mass spectrum in quenched lattice QCD: Î²=5.7. Nuclear Physics B, 1989, 317, 509-525.	0.9	55
23	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.	3.3	54
24	Critical behavior in the site-diluted three-dimensional three-state Potts model. Physical Review B, 2000, 61, 3215-3218.	1.1	50
25	Glueball masses and the loop-loop correlation functions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1987, 197, 400-402.	1.5	48
26	Critical properties of the antiferromagnetic P2 model in three dimensions. Nuclear Physics B, 1997, 483, 707-736.	0.9	45
27	Weak first order transitions. The two-dimensional Potts model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1992, 277, 485-490.	1.5	43
28	Variational mean-field approach to the double-exchange model. Physical Review B, 2001, 63, .	1.1	41
29	Monte Carlo study of O(3) antiferromagnetic models in three dimensions. Physical Review B, 1996, 53, 2537-2545.	1.1	40
30	Interplay between double-exchange, superexchange, and Lifshitz localization in doped manganites. Physical Review B, 2002, 66, .	1.1	40
31	Janus II: A new generation application-driven computer for spin-system simulations. Computer Physics Communications, 2014, 185, 550-559.	3.0	40
32	Monte Carlo determination of the phase diagram of the double-exchange model. Physical Review B, 2001, 64, .	1.1	39
33	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.	0.9	38
34	Finite Size Scaling and â€œperfectâ€•actions: the three dimensional Ising model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1998, 441, 330-338.	1.5	37
35	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.	2.9	37
36	Correspondence between long-range and short-range spin glasses. Physical Review B, 2012, 86, .	1.1	36

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37	Discontinuous transitions in double-exchange materials. Physical Review B, 2001, 63, .	1.1	35
38	Phase Diagram of a Polydisperse Soft-Spheres Model for Liquids and Colloids. Physical Review Letters, 2007, 98, 085702.	2.9	35
39	Critical behavior of the specific heat in glass formers. Physical Review E, 2006, 73, 020501.	0.8	34
40	First-Order Transition in a Three-Dimensional Disordered System. Physical Review Letters, 2008, 100, 057201.	2.9	33
41	Temperature chaos in 3D Ising spin glasses is driven by rare events. Europhysics Letters, 2013, 103, 67003.	0.7	33
42	The deconfining phase transition in lattice gauge SU(3). Nuclear Physics B, 1989, 318, 553-578.	0.9	31
43	Matching Microscopic and Macroscopic Responses in Glasses. Physical Review Letters, 2017, 118, 157202.	2.9	31
44	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:mn></mml:mrow></mml:math> spin glass in an external magnetic field. Physical Review E, 2014, 89, 032140.	0.8	31
45	Aging Rate of Spin Glasses from Simulations Matches Experiments. Physical Review Letters, 2018, 120, 267203.	2.9	29
46	Scaling in lattice QCD: Glueball masses and string tension. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1988, 205, 535-539.	1.5	25
47	Ianus: an adaptive FPGA computer. Computing in Science and Engineering, 2006, 8, 41-49.	1.2	24
48	Phase transition in three-dimensional Heisenberg spin glasses with strong random anisotropies through a multi-GPU parallelization. Physical Review B, 2014, 89, .	1.1	24
49	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.	3.3	23
50	Ion kinetic transport in the presence of collisions and electric field in TJ-II ECRH plasmas. Plasma Physics and Controlled Fusion, 2007, 49, 753-776.	0.9	23
51	The 3D Z3 spin model and the deconfinement transition in QCD: A problem of universality. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1989, 217, 309-313.	1.5	22
52	The U(1)-Higgs model: critical behaviour in the confining-Higgs region. Nuclear Physics B, 1993, 405, 574-592.	0.9	22
53	Glueball masses and string tension Smeared loop-loop correlation functions. Nuclear Physics B, 1988, 295, 51-64.	0.9	21
54	Reconfigurable computing for Monte Carlo simulations: Results and prospects of the Janus project. European Physical Journal: Special Topics, 2012, 210, 33-51.	1.2	21

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55	Testing statics-dynamics equivalence at the spin-glass transition in three dimensions. Physical Review B, 2015, 91, .	1.1	21
56	Universal critical behavior of the two-dimensional Ising spin glass. Physical Review B, 2016, 94, .	1.1	21
57	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.	2.9	20
58	Phase diagram of the Z(3) spin model in three dimensions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1989, 217, 314-318.	1.5	19
59	Tethered Monte Carlo: Computing the effective potential without critical slowing down. Nuclear Physics B, 2009, 807, 424-454.	0.9	19
60	Microcanonical fermionic average method for Monte Carlo simulations of lattice gauge theories with dynamical fermions. Physical Review D, 1993, 48, 402-416.	1.6	17
61	Sample-to-sample fluctuations of the overlap distributions in the three-dimensional Edwards-Anderson spin glass. Physical Review B, 2011, 84, .	1.1	17
62	Finite size renormalization group study of U(1) gauge theory. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1991, 267, 100-104.	1.5	16
63	Phase diagram of d = 4 Ising model with two couplings. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1996, 376, 148-153.	1.5	16
64	Critical behavior of the dilute antiferromagnet in a magnetic field. Physical Review B, 2011, 84, .	1.1	16
65	Temperature chaos is a non-local effect. Journal of Statistical Mechanics: Theory and Experiment, 2016, 2016, 123301.	0.9	16
66	Renormalization group study of the three state three dimensional Potts model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1989, 231, 157-160.	1.5	15
67	Ion Orbits and Ion Confinement Studies on ECRH Plasmas in TJ-II Stellarator. Fusion Science and Technology, 2006, 50, 412-418.	0.6	15
68	Mean-value identities as an opportunity for Monte Carlo error reduction. Physical Review E, 2009, 79, 051109.	0.8	15
69	Finite-size scaling analysis of the distributions of pseudo-critical temperatures in spin glasses. Journal of Statistical Mechanics: Theory and Experiment, 2011, 2011, P10019.	0.9	15
70	The deconfining phase transition and the glueball channels in pure gauge QCD. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1989, 220, 607-610.	1.5	14
71	A new computation of the correlation length near the deconfining transition in SU(3). Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1989, 224, 333-338.	1.5	14
72	Numerical study of the enlarged O(5) symmetry of the 3D antiferromagnetic RP2 spin model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2005, 628, 281-290.	1.5	14

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73	Spin glass phase in the four-state three-dimensional Potts model. Physical Review B, 2009, 79, .	1.1	14
74	Kinetic simulations of fast ions in stellarators. Nuclear Fusion, 2011, 51, 083040.	1.6	14
75	Dynamic variational study of chaos: spin glasses in three dimensions. Journal of Statistical Mechanics: Theory and Experiment, 2018, 2018, 033302.	0.9	14
76	New regimes in the initial cosmic string network. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1989, 227, 347-351.	1.5	13
77	ISDEP: Integrator of stochastic differential equations for plasmas. Computer Physics Communications, 2012, 183, 1877-1883.	3.0	13
78	Temperature chaos is present in off-equilibrium spin-glass dynamics. Communications Physics, 2021, 4, .	2.0	13
79	From APE to APE-100: From 1 to 100 gflops in lattice gauge theory simulations. Computer Physics Communications, 1989, 57, 285-289.	3.0	12
80	Ion heating in transitions to CERC in the stellarator TJ-II. Nuclear Fusion, 2008, 48, 065008.	1.6	12
81	Critical properties of the four-state commutative random permutation glassy Potts model in three and four dimensions. Physical Review B, 2008, 77, .	1.1	12
82	Scaling Law Describes the Spin-Glass Response in Theory, Experiments, and Simulations. Physical Review Letters, 2020, 125, 237202.	2.9	12
83	Antiferromagnetic four-dimensional O(4) model. Physical Review D, 1997, 55, 2965-2973.	1.6	11
84	Separation and fractionation of order and disorder in highly polydisperse systems. Physical Review E, 2010, 82, 021501.	0.8	10
85	Numerical test of the Cardy-Jacobsen conjecture in the site-diluted Potts model in three dimensions. Physical Review B, 2012, 86, .	1.1	10
86	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.	0.7	10
87	Spin-glass dynamics in the presence of a magnetic field: exploration of microscopic properties. Journal of Statistical Mechanics: Theory and Experiment, 2021, 2021, 033301.	0.9	10
88	Numerical Construction of the Aizenman-Wehr Metastate. Physical Review Letters, 2017, 119, 037203.	2.9	9
89	Is the antiferromagneticRP2model in four dimensions trivial?. Physical Review D, 1997, 55, 5067-5074.	1.6	8
90	Optimized Monte Carlo method for glasses. Philosophical Magazine, 2007, 87, 581-586.	0.7	8

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91	Spin glasses on the hypercube. Physical Review B, 2010, 81, .	1.1	8
92	Critical behavior of three-dimensional disordered Potts models with many states. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P05002.	0.9	8
93	Proton decay in a nucleus: Nonrelativistic treatment of nuclear effects. Physical Review D, 1983, 27, 2656-2667.	1.6	7
94	Off-equilibrium fluctuation-dissipation relations in the3dIsing spin glass in a magnetic field. Physical Review B, 2003, 67, .	1.1	7
95	Phase diagram of the bosonic double-exchange model. Physical Review B, 2005, 71, .	1.1	7
96	Microcanonical finite-size scaling in second-order phase transitions with diverging specific heat. Physical Review E, 2009, 80, 051105.	0.8	7
97	Impact of 3D features on ion collisional transport in ITER. Nuclear Fusion, 2010, 50, 125007.	1.6	7
98	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.	0.9	7
99	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.	1.5	6
100	A multisite microcanonical updating method. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1996, 374, 152-158.	1.5	6
101	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.	1.5	5
102	Proposal of a renormalization group transformation for lattice field theories. Physical Review D, 1994, 50, 5935-5943.	1.6	5
103	Dimensional crossover in the aging dynamics of spin glasses in a film geometry. Physical Review B, 2019, 100, .	1.1	5
104	Tempering Dynamics and Relaxation Times in the 3D Ising Model. Journal De Physique, I, 1995, 5, 1247-1254.	1.2	5
105	Thermal and repulsive traffic flow. Physical Review E, 1995, 52, 5946-5954.	0.8	4
106	Does proton decay follow the exponential law?. Zeitschrift FÃ¼r Physik C-Particles and Fields, 1984, 21, 353-356.	1.5	3
107	A variational study of the phase diagram of the potts three state model versus Monte Carlo simulation. Physica A: Statistical Mechanics and Its Applications, 1989, 161, 284-299.	1.2	3
108	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.	1.5	3

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109	An FPGA-Based Supercomputer for Statistical Physics: The Weird Case of Janus. , 2013, , 481-506.		3
110	Proton decay in a nucleus: Effects of the nuclear surface. Physical Review D, 1986, 33, 277-279.	1.6	2
111	Stochastic quantization of Yang-Mills field theory: Gauge-fixing parameter dependence and equilibrium limit. Physical Review D, 1987, 36, 510-514.	1.6	2
112	A renormalization group study of a gauge theory: SU(3) at finite temperature. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1991, 253, 200-204.	1.5	2
113	THE COULOMB-HIGGS PHASE TRANSITION OF THE U(1)-HIGGS MODEL. International Journal of Modern Physics C, 1994, 05, 343-345.	0.8	2
114	Monte Carlo studies of antiferromagnetic spin models in three dimensions. Nuclear Physics, Section B, Proceedings Supplements, 1996, 47, 767-770.	0.5	2
115	Antiferromagnetic O(N) models in four dimensions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1998, 419, 303-310.	1.5	2
116	Study of the Coulomb-Higgs transition in the abelian Higgs model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1998, 416, 163-168.	1.5	2
117	Numerical test of the replica-symmetric Hamiltonian for correlations of the critical state of spin glasses in a field. Physical Review E, 2022, 105, .	0.8	2
118	On Fermi-like corrections in proton decay in nuclei. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1987, 190, 131-134.	1.5	1
119	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.	1.5	1
120	Finite-size scaling of the d = 4 site-diluted Ising model. Nuclear Physics, Section B, Proceedings Supplements, 1998, 63, 625-627.	0.5	1
121	Nonequilibrium spin glass dynamics with Janus. , 2009, , .		1
122	Spin Glass Simulations on the Janus Architecture: A Desperate Quest for Strong Scaling. Lecture Notes in Computer Science, 2013, , 528-537.	1.0	1
123	Neutron-antineutron oscillations in nuclei and the ?quantum zeno effect?. Zeitschrift FÃ¼r Physik C-Particles and Fields, 1985, 26, 615-620.	1.5	0
124	Proton Decay in a Nucleus Revisited: Pionic Effects. Progress of Theoretical Physics, 1988, 80, 868-873.	2.0	0
125	APE results of hadron masses in full QCD simulations. Nuclear Physics, Section B, Proceedings Supplements, 1995, 42, 300-302.	0.5	0
126	A proposal of a Monte Carlo renormalization group transformation. Nuclear Physics, Section B, Proceedings Supplements, 1995, 42, 802-804.	0.5	0

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127	On the universality class of monopole percolation in scalar QED. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1999, 452, 310-317.	1.5	0
128	A measure of conductivity for lattice fermions at finite density. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2000, 480, 392-398.	1.5	0
129	First-order transitions in double exchange materials. Journal of Magnetism and Magnetic Materials, 2001, 226-230, 849-850.	1.0	0
130	Finite Size Effects in the Specific Heat of Glass-Formers. AIP Conference Proceedings, 2006, , .	0.3	0
131	First Order Phase Transition in a 3D disordered system. , 2008, , .		0
132	Ion kinetic transport in TJ-II. , 2008, , .		0