

Gary Wysin

List of Publications by Year in descending order

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83
docs citations

83
times ranked

1126
citing authors

#	ARTICLE	IF	CITATIONS
1	Effects of surface anisotropy on hysteresis in fine magnetic particles. <i>Physical Review B</i> , 1994, 50, 3077-3084.	1.1	118
2	Vortices in the classical two-dimensional anisotropic Heisenberg model. <i>Physical Review B</i> , 1989, 39, 11840-11849.	1.1	112
3	Dynamical correlations from mobile vortices in two-dimensional easy-plane ferromagnets. <i>Physical Review B</i> , 1989, 39, 591-602.	1.1	104
4	Magnon modes and magnon-vortex scattering in two-dimensional easy-plane ferromagnets. <i>Physical Review B</i> , 1998, 58, 8464-8474.	1.1	100
5	Optical bistability with surface plasmons. <i>Optics Letters</i> , 1981, 6, 30.	1.7	90
6	Magnetic properties of superparamagnetic particles by a Monte Carlo method. <i>Physical Review B</i> , 1996, 54, 9237-9241.	1.1	82
7	Vortex signatures in dynamic structure factors for two-dimensional easy-plane ferromagnets. <i>Physical Review Letters</i> , 1987, 59, 117-120.	2.9	79
8	Instability of in-plane vortices in two-dimensional easy-plane ferromagnets. <i>Physical Review B</i> , 1994, 49, 8780-8789.	1.1	71
9	Magnetic properties of spherical fcc clusters with radial surface anisotropy. <i>Physical Review B</i> , 1995, 51, 11947-11950.	1.1	70
10	Magnon modes for a circular two-dimensional easy-plane ferromagnet in the cone state. <i>Physical Review B</i> , 2002, 65, .	1.1	51
11	Normal Modes and Soliton Resonance for Vortices in 2D Classical Antiferromagnets. <i>Physical Review Letters</i> , 1996, 76, 511-514.	2.9	50
12	Picosecond response of photoexcited GaAs in a uniform electric field by Monte Carlo dynamics. <i>Physical Review B</i> , 1988, 38, 12514-12524.	1.1	48
13	Motion of vortex pairs in the ferromagnetic and antiferromagnetic anisotropic Heisenberg model. <i>Physical Review B</i> , 1991, 43, 5992-6005.	1.1	44
14	Extinction of the Berezinskii-Kosterlitz-Thouless phase transition by nonmagnetic disorder in planar symmetry spin models. <i>Physical Review B</i> , 2005, 72, .	1.1	44
15	Quantum Monte Carlo and transfer-matrix calculations for one-dimensional easy-plane ferromagnets. <i>Physical Review B</i> , 1986, 34, 3377-3387.	1.1	43
16	Soliton dynamics on a ferromagnetic chain. <i>Journal of Physics C: Solid State Physics</i> , 1982, 15, L337-L343.	1.5	41
17	Soliton dynamics on an easy-plane ferromagnetic chain. <i>Journal of Physics C: Solid State Physics</i> , 1984, 17, 5975-5991.	1.5	41
18	Magnetic vortex mass in two-dimensional easy-plane magnets. <i>Physical Review B</i> , 1996, 54, 15156-15162.	1.1	39

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19	Overshoot in the response of a photoconductor excited by subpicosecond pulses. Applied Physics Letters, 1988, 52, 2148-2150.	1.5	36
20	Amplitudes for magnon scattering by vortices in two-dimensional weakly easy-plane ferromagnets. Physical Review B, 2004, 69, .	1.1	35
21	Normal modes of vortices in easy-plane ferromagnets. Physical Review B, 1995, 52, 7412-7427.	1.1	33
22	Single-kink dynamics in an easy-plane classical antiferromagnetic chain. Journal of Physics C: Solid State Physics, 1986, 19, 221-233.	1.5	32
23	Dynamic correlations in a classical two-dimensional Heisenberg antiferromagnet. Physical Review B, 1990, 42, 810-819.	1.1	32
24	Nambu monopoles interacting with lattice defects in a two-dimensional artificial square spin ice. Physical Review B, 2013, 87, .	1.1	32
25	Dynamic correlations in the classical two-dimensional antiferromagnetic Heisenberg model with easy-plane symmetry. Physical Review B, 1991, 44, 10066-10078.	1.1	27
26	Collective-variable approach to the dynamics of nonlinear magnetic excitations with application to vortices. Physical Review B, 1994, 50, 12711-12720.	1.1	27
27	Correlated molecular-field theory for Ising models. Physical Review E, 2000, 61, 6399-6403.	0.8	27
28	Faraday rotation enhancement of gold coated Fe ₂ O ₃ nanoparticles: Comparison of experiment and theory. Journal of Chemical Physics, 2011, 135, 224502.	1.2	27
29	Electromagnetic modes in dielectric equilateral triangle resonators. Journal of the Optical Society of America B: Optical Physics, 2006, 23, 1586.	0.9	25
30	Quantum Monte Carlo study of a spin-1/2 chain. Physical Review B, 1985, 31, 3205-3208.	1.1	24
31	Dynamics and hysteresis in square lattice artificial spin ice. New Journal of Physics, 2013, 15, 045029.	1.2	24
32	Vortex-vacancy interactions in two-dimensional easy-plane magnets. Physical Review B, 2003, 68, .	1.1	22
33	Low-temperature static and dynamic behavior of the two-dimensional easy-axis Heisenberg model. Physical Review B, 1999, 59, 6229-6238.	1.1	21
34	Vacancy effects in an easy-plane Heisenberg model: Reduction of T_c and doubly charged vortices. Physical Review B, 2005, 71, .	1.1	20
35	Spin dynamics for 2d Heisenberg antiferromagnets with combined easy-plane and Dzyaloshinsky interactions. Annalen Der Physik, 1993, 505, 308-319.	0.9	18
36	Realization of Rectangular Artificial Spin Ice and Direct Observation of High Energy Topology. Scientific Reports, 2017, 7, 13982.	1.6	18

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37	Magnetic anisotropy of elongated thin ferromagnetic nano-islands for artificial spin ice arrays. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 296001.	0.7	17
38	The classical two-dimensional XY model with in-plane magnetic field. <i>Journal of Physics Condensed Matter</i> , 1990, 2, 1853-1868.	0.7	16
39	Chaos and coherence in classical one-dimensional magnets. <i>Journal of Magnetism and Magnetic Materials</i> , 1986, 54-57, 1132-1134.	1.0	15
40	Contribution of impurity-pinned vortices to the response function in a randomly diluted easy-plane ferromagnet on a square lattice. <i>Physical Review B</i> , 2005, 72, .	1.1	15
41	Onsager reaction-field theory for magnetic models on diamond and hcp lattices. <i>Physical Review B</i> , 2000, 62, 3251-3258.	1.1	14
42	Rb ₂ CrCl ₄ : studies of a two-dimensional classical easy-plane Heisenberg model with in-plane symmetry breaking. <i>Journal of Physics Condensed Matter</i> , 1989, 1, 4387-4398.	0.7	13
43	Lifetime of vortices in two-dimensional easy-plane ferromagnets. <i>Physical Review B</i> , 1996, 53, 8539-8542.	1.1	13
44	Critical anisotropies of two-dimensional magnetic vortices. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1998, 240, 95-99.	0.9	13
45	Vortex-in-nanodot potentials in thin circular magnetic dots. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 376002.	0.7	13
46	Effects of interband transitions on Faraday rotation in metallic nanoparticles. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 325302.	0.7	13
47	Thermal vortex dynamics in thin circular ferromagnetic nanodisks. <i>Physical Review B</i> , 2012, 86, .	1.1	12
48	Order and thermalized dynamics in Heisenberg-like square and Kagomé spin ices. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 076004.	0.7	10
49	Thermomagnetic transport coefficients: Solitons in an easy-plane magnetic chain. <i>Physical Review B</i> , 1987, 36, 7063-7070.	1.1	9
50	Spin-wave damping in the two-dimensional ferromagnetic XY model. <i>Physical Review B</i> , 2000, 62, 11585-11599.	1.1	9
51	Relaxation schemes for normal modes of magnetic vortices: Application to the scattering matrix. <i>Physical Review B</i> , 2001, 63, .	1.1	9
52	Hole-vortex-magnon interactions in diluted layered antiferromagnets with planar symmetry. <i>Physical Review B</i> , 2006, 73, .	1.1	9
53	Localized magnon mode of in-plane magnetic vortices in easy-plane magnets. <i>Physical Review B</i> , 1998, 57, 8274-8284.	1.1	8
54	Onsager reaction field theory for the three-dimensional anisotropic XY model. <i>Physical Review B</i> , 1998, 58, 2399-2402.	1.1	8

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55	Dynamics of vortices in quasi-two-dimensional classical Heisenberg magnets with weak easy-plane anisotropy. Journal of Physics Condensed Matter, 1992, 4, 9411-9422.	0.7	6
56	Comparison of vortex normal modes in easy-plane ferromagnets and antiferromagnets. Physical Review B, 1996, 54, 12921-12931.	1.1	6
57	Resonant mode lifetimes due to boundary wave emission in equilateral triangular dielectric cavities. Journal of Optics, 2005, 7, 502-509.	1.5	5
58	Berezinskii-Kosterlitz-Thouless phase transition for the dilute planar rotator model on a triangular lattice. Physical Review B, 2008, 78, .	1.1	5
59	Vortex dynamics in thin elliptic ferromagnetic nanodisks. Low Temperature Physics, 2015, 41, 788-800.	0.2	5
60	Magnetic oscillation modes in square-lattice artificial spin ice. Physical Review B, 2020, 101, .	1.1	5
61	Vortex dynamics in the classical two-dimensional antiferromagnetic XY model. Journal of Magnetism and Magnetic Materials, 1992, 104-107, 766-768.	1.0	4
62	Comment on "Static and dynamic simulation in the classical two-dimensional anisotropic Heisenberg model". Physical Review B, 1997, 56, 14192-14194.	1.1	4
63	Free vortex and vortex-pair lifetimes in classical two-dimensional easy-plane magnets. Journal of Physics Condensed Matter, 1998, 10, 7453-7465.	0.7	4
64	Kink-anti-kink scattering for an easy-plane one-dimensional antiferromagnet. Journal of Physics C: Solid State Physics, 1987, 20, 2361-2373.	1.5	3
65	Numerical study of vortices in a two-dimensional XY model with in-plane magnetic field. Physical Review B, 1997, 55, 14144-14147.	1.1	3
66	Collective Variable Approach for a Magnetic N-Vortex System. NATO ASI Series Series B: Physics, 1994, , 199-206.	0.2	3
67	Equations of motion for vortices in 2-D easy-plane magnets. , 1991, , 1-14.		2
68	DYNAMICS OF UNBOUND VORTICES IN THE 2-DIMENSIONAL XY AND ANISOTROPIC HEISENBERG MODELS. Journal De Physique Colloque, 1988, 49, C8-1385-C8-1386.	0.2	2
69	Easy-plane antiferromagnetic kinks. Journal of Magnetism and Magnetic Materials, 1986, 54-57, 831-832.	1.0	1
70	Edge effects in vortex-based nanocontact oscillators. Physical Review B, 2014, 90, .	1.1	1
71	Classical Spin Dynamics in the Two-Dimensional Anisotropic Heisenberg Model. Springer Proceedings in Physics, 1988, , 40-48.	0.1	1
72	Metastability and dynamic modes in magnetic island chains. Journal of Physics Condensed Matter, 2022, 34, 065803.	0.7	1

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73	Soliton dynamics on an easy-plane ferromagnetic chain. Journal of Physics C: Solid State Physics, 1985, 18, 4077-4077.	1.5	0
74	Reply to "Comment on "Dynamic correlations in a classical two-dimensional Heisenberg antiferromagnet" Physical Review B, 1992, 45, 10812-10813.	1.1	0
75	A one-dimensional statistical mechanics model with exact transfer integral solution. American Journal of Physics, 1993, 61, 734-740.	0.3	0
76	Nonlinear Effects in Low-Dimensional Magnetism: Solitons and Vortices. Springer Proceedings in Physics, 1987, , 109-113.	0.1	0
77	One-Dimensional Easy-Plane Magnets: Classical Sine-Gordon Theory or a Quantum Model?. Springer Series in Solid-state Sciences, 1987, , 42-52.	0.3	0
78	Dynamic Scaling in the Two-Dimensional Heisenberg Antiferromagnet. NATO ASI Series Series B: Physics, 1991, , 353-357.	0.2	0
79	On the Motion of Vortex Pairs in the Anisotropic Heisenberg Model. NATO ASI Series Series B: Physics, 1991, , 189-192.	0.2	0
80	Magnetic vortex dynamics in the non-circular potential of a thin ellipticferromagnetic nanodisk with applied fields. AIMS Materials Science, 2017, 4, 421-438.	0.7	0
81	Magnetic Chiral Solitons Stabilized by Oersted Field at a Thin-Film Nanocontact with Electric Current. Ukrainian Journal of Physics, 2019, 64, 933.	0.1	0