Lucas A S Ml

List of Publications by Year in Descending Order

40 papers	619 citations	14 h-index	24 g-index
41 ext. papers	668 ext. citations	2.5 avg, IF	3.78 L-index

#	Paper	IF	Citations
40	Emergent magnetic monopole and dipole screening by free electrons in aluminum/artificial spin ice heterostructures. *Applied Physics Letters*, **2022**, 120, 062405	3.4	
39	Pushing the Limits of EPD Zeros Method. *Brazilian Journal of Physics*, **2022**, 52, 1	1.2	1
38	Moment-generating function zeros in the study of phase transitions.. *Physical Review E*, **2021**, 104, 064103	2.4	0
37	The impact of fluctuations on the zeros of the energy probability distribution. *Journal of Physics: Conference Series*, **2020**, 1483, 012007	0.3	1
36	A Simple Monte Carlo Simulation For the Two Dimensional Attractive Hubbard Model. *Journal of Physics: Conference Series*, **2020**, 1483, 012002	0.3	
35	Effects of magnetic monopoles charge on the cracking reversal processes in artificial square ices. *Scientific Reports*, **2020**, 10, 9959	4.9	2
34	A New Algorithm to Study the Critical Behavior of Topological Phase Transitions. *Brazilian Journal of Physics*, **2019**, 49, 271-276	1.2	5
33	The Fully Frustrated XY Model Revisited: A New Universality Class. *Journal of Statistical Physics*, **2019**, 175, 960-971	1.5	10
32	Intermediate phase and pseudo phase transition in an artificial spin ice model. *Physical Review B*, **2019**, 100,	3.3	5
31	Towards magnetic monopole interaction measurement in artificial spin ice systems. *Journal of Magnetism and Magnetic Materials*, **2018**, 458, 327-334	2.8	2
30	On the use of the energy probability distribution zeros in the study of phase transitions. *Journal of Physics: Conference Series*, **2018**, 1012, 012005	0.3	1
29	Energy probability distribution zeros: A route to study phase transitions. *Computer Physics Communications*, **2017**, 216, 77-83	4.2	13
28	The zeros of the Energy Probability Distribution - A new way to study phase transitions -. *Journal of Physics: Conference Series*, **2017**, 921, 012004	0.3	2
27	Using zeros of the canonical partition function map to detect signatures of a Berezinskii□Kosterlitz□Thouless transition. *Computer Physics Communications*, **2016**, 209, 88-91	4.2	11
26	Spin-1 J1□2□3 ferromagnetic Heisenberg model with an easy-plane crystal field on the cubic lattice: A bosonic approach. *Journal of Magnetism and Magnetic Materials*, **2016**, 407, 341-347	2.8	1
25	Emergence and mobility of monopoles in a unidirectional arrangement of magnetic nanoislands. *Nanotechnology*, **2015**, 26, 295303	3.4	14
24	Magnetic vortex crystal formation in the antidot complement of square artificial spin ice. *Applied Physics Letters*, **2014**, 104, 092402	3.4	13

23	The phase transition in the anisotropic Heisenberg model with long range dipolar interactions. *Journal of Magnetism and Magnetic Materials*, **2014**, 353, 11-14	2.8	5
22	Efficient demagnetization protocol for the artificial triangular spin ice. *Applied Physics Letters*, **2013**, 103, 092403	3.4	10
21	Nambu monopoles interacting with lattice defects in a two-dimensional artificial square spin ice. *Physical Review B*, **2013**, 87,	3.3	30
20	Dynamics and hysteresis in square lattice artificial spin ice. *New Journal of Physics*, **2013**, 15, 045029	2.9	19
19	From confinement to deconfinement of magnetic monopoles in artificial rectangular spin ices. *New Journal of Physics*, **2012**, 14, 115019	2.9	32
18	Magnetic anisotropy of elongated thin ferromagnetic nano-islands for artificial spin ice arrays. *Journal of Physics Condensed Matter*, **2012**, 24, 296001	1.8	11
17	Erratum to Comment on Geometry effect on the magnetic ordering of geometrically frustrated rectangular and triangular magnets[Phys. Lett. A 375 (13) (2011) 1548][Phys. Lett. A 375 (27) (2011) 2680-2681]. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2012**, 376, 3469	2.3	
16	Extending spin ice concepts to another geometry: The artificial triangular spin ice. *Physical Review B*, **2012**, 85,	3.3	33
15	Thermodynamics of elementary excitations in artificial magnetic square ice. *New Journal of Physics*, **2012**, 14, 015008	2.9	46
14	Comment on Geometry effect on the magnetic ordering of geometrically frustrated rectangular and triangular magnets[Phys. Lett. A 375 (13) (2011) 1548]. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2011**, 375, 2680-2681	2.3	3
13	Conditions for free magnetic monopoles in nanoscale square arrays of dipolar spin ice. *Physical Review B*, **2010**, 82,	3.3	67
12	Phase transition in the two-dimensional dipolar planar rotator model. *Journal of Physics Condensed Matter*, **2010**, 22, 046005	1.8	1
11	Magnetic monopole and string excitations in two-dimensional spin ice. *Journal of Applied Physics*, **2009**, 106, 063913	2.5	85
10	Anisotropic Heisenberg model with dipolar interactions: Monte Carlo simulations of the planar-to-paramagnetic phase transition in a bilayer system. *Physical Review B*, **2009**, 79,	3.3	13
9	Geometrical pinning of magnetic vortices induced by a deficit angle on a surface: Anisotropic spins on a conic space background. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2007**, 360, 472-480	2.3	16
8	Monte Carlo study of 2D generalized XY-models. *European Physical Journal B*, **2006**, 50, 541-548	1.2	19
7	Three-dimensional generalized xy models: A Monte Carlo study. *Europhysics Letters*, **2005**, 72, 62-68	1.6	9
6	Diluted planar ferromagnets: nonlinear excitations on a non-simply connected manifold. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2004**, 329, 155-161	2.3	20

5	On phase transition and vortex stability in the generalized XY models. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2003**, 319, 114-121	2.3	11
4	Oscillating solitons pinned to a nonmagnetic impurity in layered antiferromagnets. *Physical Review B*, **2003**, 67,	3.3	21
3	Vortex behavior near a spin vacancy in two-dimensional XY magnets. *Physical Review B*, **2003**, 68,	3.3	39
2	Monte Carlo study of the critical temperature for the planar rotator model with nonmagnetic impurities. *Physical Review B*, **2003**, 67,	3.3	34
1	Planar vortex in two-dimensional XY ferromagnets with a nonmagnetic impurity potential. *Physical Review B*, **2002**, 66,	3.3	13