B V Costa

List of Publications by Citations

93 papers	**911** citations	**19** h-index	**26** g-index
96 ext. papers	**971** ext. citations	**2.1** avg, IF	**4.07** L-index

#	Paper	IF	Citations
93	Magnetic monopole and string excitations in two-dimensional spin ice. *Journal of Applied Physics*, **2009**, 106, 063913	2.5	85
92	Vortex behavior near a spin vacancy in two-dimensional XY magnets. *Physical Review B*, **2003**, 68,	3.3	39
91	Monte Carlo study of the critical temperature for the planar rotator model with nonmagnetic impurities. *Physical Review B*, **2003**, 67,	3.3	34
90	Static and dynamic simulation in the classical two-dimensional anisotropic Heisenberg model. *Physical Review B*, **1996**, 54, 994-1000	3.3	32
89	Phase diagrams of a two-dimensional Heisenberg antiferromagnet with single-ion anisotropy. *Journal of Magnetism and Magnetic Materials*, **2003**, 262, 316-324	2.8	29
88	Solitons in one-dimensional antiferromagnetic chains. *Physical Review B*, **1989**, 39, 7149-7156	3.3	28
87	Quantum phase transitions in the anisotropic three dimensional XY model. *Physica A: Statistical Mechanics and Its Applications*, **2009**, 388, 3779-3784	3.3	27
86	On the Phase Shift and Bound States in a One-Dimensional Antiferromagnetic Chain. *Physica Status Solidi (B): Basic Research*, **1989**, 155, 663-667	1.3	25
85	Diagram for vortex formation in quasi-two-dimensional magnetic dots. *Journal of Applied Physics*, **2010**, 107, 053903	2.5	24
84	Monte Carlo and spin dynamics study of the anisotropic Heisenberg model in two dimensions. *Journal of Applied Physics*, **1997**, 81, 5746-5748	2.5	24
83	Spin transport in the two-dimensional quantum disordered anisotropic Heisenberg model. *Journal of Magnetism and Magnetic Materials*, **2014**, 371, 89-93	2.8	23
82	Vortex motion induced by lattice defects in two-dimensional easy-plane magnets. *Physical Review B*, **2005**, 71,	3.3	23
81	Phase transition in ultrathin magnetic films with long-range interactions: Monte Carlo simulation of the anisotropic Heisenberg model. *Physical Review B*, **2007**, 75,	3.3	22
80	Vortex-magnon interaction in the 2d XY ferromagnetic model. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **1992**, 165, 179-183	2.3	22
79	A pseudo-spin model for poly(vinylidene fluoride-trifluoroethylene) copolymers. *Polymer*, **1993**, 34, 3107-3108	3.9	22
78	Dynamical correlation from topological solitons in two-dimensional anisotropic models. *European Physical Journal B*, **1992**, 89, 109-114	1.2	21
77	Dynamics of the vortex core in magnetic nanodisks with a ring of magnetic impurities. *Applied Physics Letters*, **2012**, 101, 252402	3.4	20

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76	Magnetic vortex formation and gyrotropic mode in nanodisks. *Journal of Applied Physics*, **2011**, 109, 014301	2.5	20
75	The fast simulated annealing algorithm applied to the search problem in LEED. *Surface Science*, **2001**, 487, 15-27	1.8	20
74	Vortices in Low-Dimensional Magnetic Systems. *Brazilian Journal of Physics*, **2011**, 41, 94-101	1.2	18
73	A model for vortex formation in magnetic nanodots. *Journal of Applied Physics*, **2007**, 102, 104311	2.5	17
72	Molecular dynamics study of the copper cluster deposition on a Cu(010) surface. *Surface Science*, **2001**, 481, 54-66	1.8	17
71	Monte Carlo calculation of the transition temperature of the anisotropic three-dimensional XY model. *Physical Review B*, **1996**, 54, 3019-3021	3.3	17
70	Dynamic behavior of vortices in the classical two-dimensional anisotropic Heisenberg model. *Physical Review B*, **1998**, 57, 11510-11516	3.3	16
69	The influence of magnetic impurities in the vortex core dynamics in magnetic nano-disks. *Journal of Magnetism and Magnetic Materials*, **2012**, 324, 3083-3086	2.8	14
68	Vortex core scattering and pinning by impurities in nanomagnets. *Journal of Applied Physics*, **2011**, 109, 076104	2.5	14
67	Monte Carlo study of the critical behavior of the two-dimensional biquadratic planar rotator model. *Physical Review B*, **2001**, 64,	3.3	14
66	Molecular-dynamics study of the diffusion coefficient on a crystal surface. *Physical Review B*, **2000**, 61, 12697-12700	3.3	14
65	Energy probability distribution zeros: A route to study phase transitions. *Computer Physics Communications*, **2017**, 216, 77-83	4.2	13
64	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
63	Soliton behavior in an antiferromagnetic chain. *Physical Review B*, **1993**, 47, 5059-5062	3.3	13
62	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
61	The Fully Frustrated XY Model Revisited: A New Universality Class. *Journal of Statistical Physics*, **2019**, 175, 960-971	1.5	10
60	Berezinskii–Kosterlitz–Thouless transition close to the percolation threshold. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2013**, 377, 1239-1241	2.3	10
59	Velocity, temperature, and normal force dependence on friction: An analytical and molecular dynamics study. *Physica Status Solidi (B): Basic Research*, **2010**, 247, 98-103	1.3	10

58	Using random number generators in Monte Carlo simulations. *Physical Review E*, **1998**, 58, 5183-5184	2.4	10
57	Critical behavior of the site diluted quantum anisotropic Heisenberg model in two dimensions. *Physica A: Statistical Mechanics and Its Applications*, **2015**, 438, 579-585	3.3	9
56	Magnetization reversal of the transverse domain wall confined between two clusters of magnetic impurities in a ferromagnetic planar nanowire. *Journal of Magnetism and Magnetic Materials*, **2016**, 419, 37-42	2.8	9
55	Phase diagram of the 3D quantum anisotropic XY model. A quantum Monte Carlo calculation. *Journal of Magnetism and Magnetic Materials*, **2013**, 332, 103-108	2.8	8
54	Temperature dependent molecular dynamic simulation of friction. *Brazilian Journal of Physics*, **2006**, 36, 741-745	1.2	8
53	Molecular-dynamics simulation of directional growth of binary mixtures. *Physical Review B*, **1999**, 59, 3408-3413	3.3	8
52	Comparative study between a two-dimensional anisotropic Heisenberg antiferromagnet with easy-axis single-ion anisotropy and one with easy-axis exchange anisotropy. *Journal of Magnetism and Magnetic Materials*, **2006**, 305, 157-164	2.8	7
51	Position of the transverse domain wall controlled by magnetic impurities in rectangular magnetic nanowires. *Journal of Applied Physics*, **2014**, 115, 163906	2.5	6
50	Effects of solitons in the critical behavior of an anisotropic Heisenberg model in two dimensions. *Physical Review B*, **1994**, 50, 3828-3829	3.3	6
49	A numerical investigation of the non-linear equation of motion of the one dimensional anti-ferromagnet. *Solid State Communications*, **1985**, 56, 759-762	1.6	6
48	A New Algorithm to Study the Critical Behavior of Topological Phase Transitions. *Brazilian Journal of Physics*, **2019**, 49, 271-276	1.2	5
47	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
46	Dynamical behavior of vortices in thin film magnetic systems. *Journal of Magnetism and Magnetic Materials*, **2012**, 324, 1999-2005	2.8	5
45	Topological phase transition in the two-dimensional anisotropic Heisenberg model: A study using the Replica Exchange Wang Landau sampling. *Physica A: Statistical Mechanics and Its Applications*, **2017**, 488, 121-131	3.3	5
44	Temperature dependent structure of low index copper surfaces studied by molecular dynamics simulation. *Brazilian Journal of Physics*, **2004**, 34, 414-418	1.2	5
43	Monte Carlo and spin dynamics simulation of the fully frustrated anisotropic two-dimensional Heisenberg model. *Journal of Magnetism and Magnetic Materials*, **2003**, 263, 324-331	2.8	5
42	PvP150. Diffuse phase transition in ferroelectric polymers. *Ferroelectrics*, **1992**, 134, 247-252	0.6	5
41	Monte Carlo simulations of ultrathin magnetic dots. *Brazilian Journal of Physics*, **2006**, 36, 672-675	1.2	5

40	Molecular Dynamics Simulation of Zone Melting. *International Journal of Modern Physics C*, **1998**, 09, 857-860		4
39	Magnetic behavior of a nano-disk constrained in an antiferromagnetic substrate. *Journal of Magnetism and Magnetic Materials*, **2012**, 324, 2342-2348	2.8	3
38	Critical behavior of the fully frustrated two dimensional XY model. *Brazilian Journal of Physics*, **2004**, 34, 403	1.2	3
37	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
36	Kosterlitz-Thouless Transition: The Diluted XY model. *Journal of Physics: Conference Series*, **2014**, 487, 012008	0.3	2
35	Phase diagram of the antiferromagnetic XY model in two dimensions in a magnetic field. *Physical Review B*, **2008**, 78,	3.3	2
34	The phase transition in the fully frustrated XY model as a percolation problem. *Journal of Magnetism and Magnetic Materials*, **2006**, 300, 427-435	2.8	2
33	Dynamics of two sliding magnetic surfaces. *Brazilian Journal of Physics*, **2006**, 36, 1074-1077	1.2	2
32	Properties of Kinks in a Driven Damped Anisotropic Magnetic Chain. *Physica Status Solidi (B): Basic Research*, **1987**, 142, 117-123	1.3	2
31	MAGNETIC VORTEX BEHAVIOR IN NANO-STRUCTURES. *International Journal of Modern Physics C*, **2012**, 23, 1240003	1.1	1
30	Molecular dynamics simulation of Lorentz force microscopy in magnetic nano-disks. *Applied Physics Letters*, **2013**, 102, 172405	3.4	1
29	Phase transition in the two-dimensional dipolar planar rotator model. *Journal of Physics Condensed Matter*, **2010**, 22, 046005	1.8	1
28	MOLECULAR DYNAMICS SIMULATION OF A TWO-DIMENSIONAL HEISENBERG FLUID. *International Journal of Modern Physics C*, **2012**, 23, 1250026	1.1	1
27	Soliton-magnon interaction in the sine-Gordon-like magnetic chain. *Journal of Physics Condensed Matter*, **1992**, 4, 4839-4847	1.8	1
26	Solitons in an easy-plane classical antiferromagnetic chain with the magnetic field in an arbitrary direction. *Journal of Physics C: Solid State Physics*, **1987**, 20, 1315-1324		1
25	Monte Carlo Simulation of the Site Diluted Ising Model on the Rectangular Lattice. *Physica Status Solidi (B): Basic Research*, **1988**, 147, K79-K82	1.3	1
24	A new type of kink in the classical easy place antiferromagnet. *Solid State Communications*, **1988**, 66, 1067-1069	1.6	1
23	Statistical mechanics of a quasiperiodic one-dimensional magnetic chain. *European Physical Journal B*, **1988**, 71, 491-493	1.2	1

22   Pushing the Limits of EPD Zeros Method. *Brazilian Journal of Physics*, **2022**, 52, 1   1.2   1

21   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

20   Effects of monomer size on polymer mass transport at a crystalline interface. *Journal of Statistical Mechanics: Theory and Experiment*, **2017**, 2017, 123301   1.9   0

19   Moment-generating function zeros in the study of phase transitions.. *Physical Review E*, **2021**, 104, 064103   2.4   0

18   Magnetic vortices in kekulene-like molecules. *Solid State Communications*, **2021**, 328, 114224   1.6   0

17   Real-space, mean-field algorithm to numerically calculate long-range interactions. *Physica A: Statistical Mechanics and Its Applications*, **2016**, 444, 327-335   3.3

16   Magnetic vortex behavior and its dynamics in nanomagnets in the presence of impurities. *Physics Procedia*, **2012**, 28, 99-104

15   Phase diagram of the three-dimensional anisotropic Heisenberg anti-ferromagnetic model. *Physica Status Solidi (B): Basic Research*, **2009**, 246, 2379-2383   1.3

14   Magnetic friction due to vortex fluctuation. *Journal of Applied Physics*, **2007**, 101, 063915   2.5

13   Monte Carlo study of the Ni(C5H5N)2Ni(CN)4-2d compound. *Solid State Communications*, **2002**, 123, 201-204   1.6

12   Some Static Solutions of the Two-Dimensional Heisenberg Model with Competitive Interactions. *Physica Status Solidi (B): Basic Research*, **1995**, 187, K21-K25   1.3

11   Topological Profiles Developed in Cooperative Systems. *Physica Status Solidi (B): Basic Research*, **1995**, 189, K75-K78   1.3

10   Semiclassical Approach to the Antiferromagnetic Chain: Quantum Fluctuations and Out-of-Plane Corrections to Soliton Energies. *Physica Status Solidi (B): Basic Research*, **1991**, 164, K57-K61   1.3

9   Dynamics of a Quasi-One-Dimensional Ferromagnet. *Physica Status Solidi (B): Basic Research*, **1992**, 171, K49-K53   1.3

8   Monte carlo calculation in one-dimensional classical ferromagnetic and antiferromagnetic chains. *Solid State Communications*, **1992**, 83, 949-951   1.6

7   A Self-consistent Theory to Treat Anharmonic Terms in the One-Dimensional Antiferromagnet. *Physica Status Solidi (B): Basic Research*, **1993**, 179, K103-K106   1.3

6   Phenomenological Calculation of the Soliton Density in the One-Dimensional Antiferromagnet in an External Field. *Physica Status Solidi (B): Basic Research*, **1990**, 160, K165-K168   1.3

5   Vortex Fluctuation and Magnetic Friction. *Springer Proceedings in Physics*, **2009**, 97-100   0.2

4	Determination of the Phase Diagram for the 3d Spin Glass ± J Model Using the Zeros of the Energy Probability Distribution. *Journal of Physics: Conference Series*, **2020**, 1483, 012010	0.3
3	Nanowire Growth Simulation. *Journal of Physics: Conference Series*, **2020**, 1483, 012003	0.3
2	Correlation function behavior in the topological Kosterlitz–Thouless transition using the Replica-Exchange Wang–Landau technique. *International Journal of Modern Physics B*, **2019**, 33, 1950361	1.1
1	20 years of the Brazilian Meeting on Simulational Physics. *Journal of Physics: Conference Series*, **2018**, 1012, 012001	0.3