B V Costa

List of Publications by Year in descending order

95 papers	1,039 citations	394421 19 h-index	501196 28 g-index
96 all docs	96 docs citations	96 times ranked	476 citing authors

#	Article	IF	Citations
1	Magnetic monopole and string excitations in two-dimensional spin ice. Journal of Applied Physics, 2009, 106, .	2.5	101
2	Vortex behavior near a spin vacancy in two-dimensionalXYmagnets. Physical Review B, 2003, 68, .	3.2	41
3	Monte Carlo study of the critical temperature for the planar rotator model with nonmagnetic impurities. Physical Review B, 2003, 67, .	3.2	35
4	Static and dynamic simulation in the classical two-dimensional anisotropic Heisenberg model. Physical Review B, 1996, 54, 994-1000.	3.2	34
5	Phase diagrams of a two-dimensional Heisenberg antiferromagnet with single-ion anisotropy. Journal of Magnetism and Magnetic Materials, 2003, 262, 316-324.	2.3	32
6	Quantum phase transitions in the anisotropic three dimensional XYÂmodel. Physica A: Statistical Mechanics and Its Applications, 2009, 388, 3779-3784.	2.6	30
7	Solitons in one-dimensional antiferromagnetic chains. Physical Review B, 1989, 39, 7149-7156.	3.2	28
8	Monte Carlo and spin dynamics study of the anisotropic Heisenberg model in two dimensions. Journal of Applied Physics, 1997, 81, 5746-5748.	2.5	27
9	Phase transition in ultrathin magnetic films with long-range interactions: Monte Carlo simulation of the anisotropic Heisenberg model. Physical Review B, 2007, 75, .	3.2	27
10	On the Phase Shift and Bound States in a Oneâ€Dimensional Antiferromagnetic Chain. Physica Status Solidi (B): Basic Research, 1989, 155, 663-667.	1.5	26
11	A pseudo-spin model for poly(vinylidene fluoride-trifluoroethylene) copolymers. Polymer, 1993, 34, 3107-3108.	3.8	26
12	Diagram for vortex formation in quasi-two-dimensional magnetic dots. Journal of Applied Physics, 2010, 107, .	2.5	25
13	Spin transport in the two-dimensional quantum disordered anisotropic Heisenberg model. Journal of Magnetism and Magnetic Materials, 2014, 371, 89-93.	2.3	25
14	The fast simulated annealing algorithm applied to the search problem in LEED. Surface Science, 2001, 487, 15-27.	1.9	24
15	Dynamics of the vortex core in magnetic nanodisks with a ring of magnetic impurities. Applied Physics Letters, 2012, 101, .	3.3	24
16	Vortex-magnon interaction in the 2d XY ferromagnetic model. Physics Letters, Section A: General, Atomic and Solid State Physics, 1992, 165, 179-183.	2.1	23
17	Vortex motion induced by lattice defects in two-dimensional easy-plane magnets. Physical Review B, 2005, 71, .	3.2	23
18	Monte Carlo calculation of the transition temperature of the anisotropic three-dimensionalXYmodel. Physical Review B, 1996, 54, 3019-3021.	3.2	22

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19	Dynamical correlation from topological solitons in two-dimensional anisotropic models. European Physical Journal B, 1992, 89, 109-114.	1.5	21
20	Magnetic vortex formation and gyrotropic mode in nanodisks. Journal of Applied Physics, 2011, 109, 014301.	2.5	21
21	Energy probability distribution zeros: A route to study phase transitions. Computer Physics Communications, 2017, 216, 77-83.	7.5	20
22	Molecular dynamics study of the copper cluster deposition on a Cu(010) surface. Surface Science, 2001, 481, 54-66.	1.9	18
23	Vortices in Low-Dimensional Magnetic Systems. Brazilian Journal of Physics, 2011, 41, 94-101.	1.4	18
24	Molecular-dynamics study of the diffusion coefficient on a crystal surface. Physical Review B, 2000, 61, 12697-12700.	3.2	17
25	A model for vortex formation in magnetic nanodots. Journal of Applied Physics, 2007, 102, 104311.	2.5	17
26	Dynamic behavior of vortices in the classical two-dimensional anisotropic Heisenberg model. Physical Review B, 1998, 57, 11510-11516.	3.2	16
27	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, .	3.2	16
28	The influence of magnetic impurities in the vortex core dynamics in magnetic nano-disks. Journal of Magnetism and Magnetic Materials, 2012, 324, 3083-3086.	2.3	15
29	Soliton behavior in an antiferromagnetic chain. Physical Review B, 1993, 47, 5059-5062.	3.2	14
30	Monte Carlo study of the critical behavior of the two-dimensional biquadratic planar rotator model. Physical Review B, 2001, 64, .	3.2	14
31	Vortex core scattering and pinning by impurities in nanomagnets. Journal of Applied Physics, 2011, 109, .	2.5	14
32	The Fully Frustrated XY Model Revisited: A New Universality Class. Journal of Statistical Physics, 2019, 175, 960-971.	1.2	14
33	Using zeros of the canonical partition function map to detect signatures of a Berezinskiiâ€“Kosterlitzâ€“Thouless transition. Computer Physics Communications, 2016, 209, 88-91.	7.5	13
34	Velocity, temperature, and normal force dependence on friction: An analytical and molecular dynamics study. Physica Status Solidi (B): Basic Research, 2010, 247, 98-103.	1.5	12
35	Using random number generators in Monte Carlo simulations. Physical Review E, 1998, 58, 5183-5184.	2.1	11
36	Molecular-dynamics simulation of directional growth of binary mixtures. Physical Review B, 1999, 59, 3408-3413.	3.2	11

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37	Berezinskiiâ€“Kosterlitzâ€“Thouless transition close to the percolation threshold. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 1239-1241.	2.1	11
38	Temperature dependent molecular dynamic simulation of friction. Brazilian Journal of Physics, 2006, 36, 741-745.	1.4	10
39	The phase transition in the anisotropic Heisenberg model with long range dipolar interactions. Journal of Magnetism and Magnetic Materials, 2014, 353, 11-14.	2.3	10
40	Critical behavior of the site diluted quantum anisotropic Heisenberg model in two dimensions. Physica A: Statistical Mechanics and Its Applications, 2015, 438, 579-585.	2.6	10
41	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.	2.3	10
42	Phase diagram of the 3D quantum anisotropic XY modelâ€”A quantum Monte Carlo calculation. Journal of Magnetism and Magnetic Materials, 2013, 332, 103-108.	2.3	9
43	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.	2.3	8
44	Position of the transverse domain wall controlled by magnetic impurities in rectangular magnetic nanowires. Journal of Applied Physics, 2014, 115, .	2.5	7
45	A New Algorithm to Study the Critical Behavior of Topological Phase Transitions. Brazilian Journal of Physics, 2019, 49, 271-276.	1.4	7
46	A numerical investigation of the non-linear equation of motion of the one dimensional anti-ferromagnet. Solid State Communications, 1985, 56, 759-762.	1.9	6
47	PvP150. Diffuse phase transition in ferroelectric polymers. Ferroelectrics, 1992, 134, 247-252.	0.6	6
48	Effects of solitons in the critical behavior of an anisotropic Heisenberg model in two dimensions. Physical Review B, 1994, 50, 3828-3829.	3.2	6
49	Phase diagram of the antiferromagneticXYmodel in two dimensions in a magnetic field. Physical Review B, 2008, 78, .	3.2	6
50	Dynamical behavior of vortices in thin film magnetic systems. Journal of Magnetism and Magnetic Materials, 2012, 324, 1999-2005.	2.3	6
51	Molecular Dynamics Simulation of Zone Melting. International Journal of Modern Physics C, 1998, 09, 857-860.	1.7	5
52	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.	2.3	5
53	Temperature dependent structure of low index copper surfaces studied by molecular dynamics simulation. Brazilian Journal of Physics, 2004, 34, 414-418.	1.4	5
54	Magnetic behavior of a nano-disk constrained in an antiferromagnetic substrate. Journal of Magnetism and Magnetic Materials, 2012, 324, 2342-2348.	2.3	5

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55	Topological phase transition in the two-dimensional anisotropic Heisenberg model: A study using the Replica Exchange Wangâ€“Landau sampling. Physica A: Statistical Mechanics and Its Applications, 2017, 488, 121-131.	2.6	5
56	Magnetic vortices in kekulene-like molecules. Solid State Communications, 2021, 328, 114224.	1.9	5
57	Monte Carlo simulations of ultrathin magnetic dots. Brazilian Journal of Physics, 2006, 36, 672-675.	1.4	5
58	Pushing the Limits of EPD Zeros Method. Brazilian Journal of Physics, 2022, 52, 1.	1.4	4
59	Critical behavior of the fully frustrated two dimensional XY model. Brazilian Journal of Physics, 2004, 34, 403.	1.4	3
60	The zeros of the Energy Probability Distribution - A new way to study phase transitions -. Journal of Physics: Conference Series, 2017, 921, 012004.	0.4	3
61	Moment-generating function zeros in the study of phase transitions. Physical Review E, 2021, 104, 064103.	2.1	3
62	Properties of Kinks in a Driven Damped Anisotropic Magnetic Chain. Physica Status Solidi (B): Basic Research, 1987, 142, 117-123.	1.5	2
63	Dynamics of two sliding magnetic surfaces. Brazilian Journal of Physics, 2006, 36, 1074-1077.	1.4	2
64	The phase transition in the fully frustrated XY model as a percolation problem. Journal of Magnetism and Magnetic Materials, 2006, 300, 427-435.	2.3	2
65	Phase transition in the two-dimensional dipolar planar rotator model. Journal of Physics Condensed Matter, 2010, 22, 046005.	1.8	2
66	MOLECULAR DYNAMICS SIMULATION OF A TWO-DIMENSIONAL HEISENBERG FLUID. International Journal of Modern Physics C, 2012, 23, 1250026.	1.7	2
67	Kosterlitz-Thouless Transition: The Diluted XY model. Journal of Physics: Conference Series, 2014, 487, 012008.	0.4	2
68	Phase diagram of flexible polymers with quenched disordered charged monomers. Physica A: Statistical Mechanics and Its Applications, 2022, 604, 127787.	2.6	2
69	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.	1.5	1
70	Monte Carlo Simulation of the Site Diluted Ising Model on the Rectangular Lattice. Physica Status Solidi (B): Basic Research, 1988, 147, K79.	1.5	1
71	A new type of kink in the classical easy place antiferromagnet. Solid State Communications, 1988, 66, 1067-1069.	1.9	1
72	Statistical mechanics of a quasiperiodic one-dimensional magnetic chain. European Physical Journal B, 1988, 71, 491-493.	1.5	1

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73	Soliton-magnon interaction in the sine-Gordon-like magnetic chain. Journal of Physics Condensed Matter, 1992, 4, 4839-4847.	1.8	1
74	MAGNETIC VORTEX BEHAVIOR IN NANO-STRUCTURES. International Journal of Modern Physics C, 2012, 23, 1240003.	1.7	1
75	Molecular dynamics simulation of Lorentz force microscopy in magnetic nano-disks. Applied Physics Letters, 2013, 102, .	3.3	1
76	Real-space, mean-field algorithm to numerically calculate long-range interactions. Physica A: Statistical Mechanics and Its Applications, 2016, 444, 327-335.	2.6	1
77	Effects of monomer size on polymer mass transport at a crystalline interface. Journal of Statistical Mechanics: Theory and Experiment, 2017, 2017, 123301.	2.3	1
78	On the use of the energy probability distribution zeros in the study of phase transitions. Journal of Physics: Conference Series, 2018, 1012, 012005.	0.4	1
79	Phenomenological Calculation of the Soliton Density in the Oneâ€Dimensional Antiferromagnet in an External Field. Physica Status Solidi (B): Basic Research, 1990, 160, K165.	1.5	0
80	Semiclassical Approach to the Antiferromagnetic Chain: Quantum Fluctuations and Outâ€ofâ€Plane Corrections to Soliton Energies. Physica Status Solidi (B): Basic Research, 1991, 164, K57.	1.5	0
81	Dynamics of a Quasiâ€Oneâ€Dimensional Ferromagnet. Physica Status Solidi (B): Basic Research, 1992, 171, K49.	1.5	0
82	Monte carlo calculation in one-dimensional classical ferromagnetic and antiferromagnetic chains. Solid State Communications, 1992, 83, 949-951.	1.9	0
83	A Selfâ€consistent Theory to Treat Anharmonic Terms in the Oneâ€Dimensional Antiferromagnet. Physica Status Solidi (B): Basic Research, 1993, 179, K103.	1.5	0
84	Some Static Solutions of the Twoâ€Dimensional Heisenberg Model with Competitive Interactions. Physica Status Solidi (B): Basic Research, 1995, 187, K21.	1.5	0
85	Topological Profiles Developed in Cooperative Systems. Physica Status Solidi (B): Basic Research, 1995, 189, K75.	1.5	0
86	Monte Carlo study of the Ni(C5H5N)2Ni(CN)4-2d compound. Solid State Communications, 2002, 123, 201-204.	1.9	0
87	Magnetic friction due to vortex fluctuation. Journal of Applied Physics, 2007, 101, 063915.	2.5	0
88	Phase diagram of the threeâ€dimensional anisotropic Heisenberg antiâ€ferromagnetic model. Physica Status Solidi (B): Basic Research, 2009, 246, 2379-2383.	1.5	0
89	Magnetic vortex behavior and its dynamics in nanomagnets in the presence of impurities. Physics Procedia, 2012, 28, 99-104.	1.2	0
90	20 years of the Brazilian Meeting on Simulational Physics. Journal of Physics: Conference Series, 2018, 1012, 012001.	0.4	0

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91	Correlation function behavior in the topological Kosterlitzâ€“Thouless transition using the Replica-Exchange Wangâ€“Landau technique. International Journal of Modern Physics B, 2019, 33, 1950361.	2.0	0
92	Determination of the Phase Diagram for the 3d Spin Glass Â± J Model Using the Zeros of the Energy Probability Distribution. Journal of Physics: Conference Series, 2020, 1483, 012010.	0.4	0
93	Nanowire Growth Simulation. Journal of Physics: Conference Series, 2020, 1483, 012003.	0.4	0
94	Molecular dynamics simulation of morphological instabilities in solid-fluid interfaces. Brazilian Journal of Physics, 2001, 31, 483-487.	1.4	0
95	Clustering of dust particles on water surface. Brazilian Journal of Physics, 2004, 34, .	1.4	0