

# Leonardo S Lima

## List of Publications by Year in descending order

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70  
papers

610  
citations

687220

13  
h-index

752573

20  
g-index

70  
all docs

70  
docs citations

70  
times ranked

100  
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of magnon bands on quantum entanglement in two-dimensional ferromagnets in the checkerboard lattice. <i>European Physical Journal Plus</i> , 2022, 137, .	1.2	2
2	Fractional Stochastic Differential Equation Approach for Spreading of Diseases. <i>Entropy</i> , 2022, 24, 719.	1.1	6
3	Effect of spin-phonon coupling on quantum correlation in the spin-1 XY model. <i>Solid State Communications</i> , 2021, 332, 114323.	0.9	2
4	Self-organizing three-dimensional Ising model of financial markets. <i>Physical Review E</i> , 2021, 103, 062130.	0.8	0
5	Quantum correlation in the bilinear-biquadratic model for iron-based superconductors. <i>European Physical Journal Plus</i> , 2021, 136, 1.	1.2	3
6	Entanglement in $(4\frac{1}{4}\text{-}1)\text{-D}$ -Dirac-type lattice model time-reversal-invariant. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2021, 578, 126111.	1.2	0
7	Quantum Phase Transition and Quantum Correlation in the Two-dimensional Honeycomb-bilayer Lattice Antiferromagnet. <i>Journal of Low Temperature Physics</i> , 2021, 205, 112-125.	0.6	8
8	Dynamics of stocks prices based in the Black & Scholes equation and nonlinear stochastic differentials equations. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2021, 581, 126220.	1.2	2
9	Transport in $(4+1)\text{-D}$ -dimensional topological insulators models. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2020, 384, 126514.	0.9	1
10	Influence of Topological Phase Transition on Entanglement in the Spin-1 Antiferromagnetic XX Model in Two Dimensions. <i>Journal of Low Temperature Physics</i> , 2020, 201, 515-525.	0.6	8
11	Thermal Entanglement in the Quantum XXZ Model in Triangular and Bilayer Honeycomb Lattices. <i>Journal of Low Temperature Physics</i> , 2020, 198, 241-251.	0.6	10
12	Two-dimensional stochastic dynamics as model for time evolution of the financial market. <i>Chaos, Solitons and Fractals</i> , 2020, 136, 109792.	2.5	7
13	Mapping of Critical Anisotropy on Spin Dynamics in a Frustrated Antiferromagnet. <i>Brazilian Journal of Physics</i> , 2019, 49, 623-627.	0.7	0
14	Effect of Dzyaloshinskii-Moriya interaction on quantum entanglement in superconductors models of high $T_c$ . <i>European Physical Journal D</i> , 2019, 73, 1.	0.6	21
15	Failure of the Schwinger boson approach in the description of the ground state in the spatially anisotropic Heisenberg model. <i>European Physical Journal B</i> , 2019, 92, 1.	0.6	4
16	Nonlinear Stochastic Equation within an Itô Prescription for Modelling of Financial Market. <i>Entropy</i> , 2019, 21, 530.	1.1	6
17	Magnon Hall conductivity and thermal transport in frustrated antiferromagnets. <i>Physica C: Superconductivity and Its Applications</i> , 2019, 559, 50-54.	0.6	6
18	Influence of Dzyaloshinskii-Moriya interaction and external fields on quantum entanglement in half-integer spin one-dimensional antiferromagnets. <i>European Physical Journal D</i> , 2019, 73, 1.	0.6	13

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19	Interplay between the Dzyaloshinskii-Moriya term and external fields on spin transport in the spin-1/2 one-dimensional antiferromagnet. <i>Journal of Magnetism and Magnetic Materials</i> , 2018, 454, 150-154.	1.0	6
20	Superconductivity in the graphene monolayer calculated using the Kubo formalism. <i>Physica C: Superconductivity and Its Applications</i> , 2018, 546, 71-75.	0.6	5
21	Spin wave mediated interaction as a mechanism of pairs formation in iron-based superconductors. <i>Physica C: Superconductivity and Its Applications</i> , 2018, 546, 68-70.	0.6	2
22	Spin supercurrent and effect of quantum phase transition in the two-dimensional XY model. <i>Physica C: Superconductivity and Its Applications</i> , 2018, 547, 22-26.	0.6	3
23	Entanglement in site diluted quantum two-dimensional antiferromagnet. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2018, 492, 1853-1858.	1.2	13
24	Influence of Dzyaloshinskii-Moriya interaction and ballistic spin transport in the two and three-dimensional Heisenberg model. <i>Physica C: Superconductivity and Its Applications</i> , 2018, 549, 147-149.	0.6	6
25	Price dynamics of the financial markets using the stochastic differential equation for a potential double well. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2018, 490, 828-833.	1.2	16
26	Influence of the site dilution on quantum phase transition of the biquadratic Heisenberg model at low dimension. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2018, 492, 956-961.	1.2	0
27	Meissner mechanism for the spin supercurrent and interplay between quantum phase transition and spin transport in the frustrated Heisenberg model. <i>Journal of Magnetism and Magnetic Materials</i> , 2018, 451, 214-217.	1.0	6
28	Order and excitations in site diluted quantum antiferromagnet in the triangular lattice. <i>Results in Physics</i> , 2018, 10, 809-812.	2.0	0
29	Stochastic process with multiplicative structure for the dynamic behavior of the financial market. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2018, 512, 222-229.	1.2	11
30	Transition to disordered phase and spin dynamics in the two-dimensional ferrimagnetic model. <i>Journal of Magnetism and Magnetic Materials</i> , 2018, 468, 269-272.	1.0	3
31	Spin transport in the three-dimensional XY model with single-ion anisotropy. <i>Solid State Communications</i> , 2018, 278, 20-23.	0.9	2
32	Effect of quantum phase transition on spin transport in the spatially frustrated Heisenberg model. <i>Solid State Communications</i> , 2017, 254, 10-14.	0.9	5
33	Modeling of the financial market using the two-dimensional anisotropic Ising model. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2017, 482, 544-551.	1.2	14
34	Entanglement in the quantum one-dimensional integer spin S Heisenberg antiferromagnet. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2017, 483, 239-242.	1.2	15
35	Ladder approximation for the AC conductivity in the generalized two-dimensional Hubbard model. <i>Solid State Communications</i> , 2017, 258, 21-24.	0.9	3
36	Influence of quantum phase transition on spin transport in the quantum antiferromagnet in the honeycomb lattice. <i>Journal of Magnetism and Magnetic Materials</i> , 2017, 432, 169-174.	1.0	6

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37	Similarity between the superconductivity in the graphene with the spin transport in the two-dimensional antiferromagnet in the honeycomb lattice. <i>Physica B: Condensed Matter</i> , 2017, 507, 164-169.	1.3	2
38	Effect of the phase transition to the ferroquadrupolar phase on spin transport in the biquadratic antiferromagnet of the triangular lattice. <i>Journal of Magnetism and Magnetic Materials</i> , 2017, 428, 448-451.	1.0	10
39	Influence of quantum phase transition on spin conductivity in the anisotropic three-dimensional ferromagnetic model. <i>Solid State Communications</i> , 2017, 250, 49-52.	0.9	10
40	A new representation for the nonlinear classical oscillator. <i>European Physical Journal B</i> , 2017, 90, 1.	0.6	4
41	SU(2) Schwinger boson theory of the frustrated two-dimensional antiferromagnet. <i>Physica B: Condensed Matter</i> , 2017, 524, 149-153.	1.3	1
42	Spin transport of the frustrated quasi-two-dimensional XY-like antiferromagnet. <i>Journal of Magnetism and Magnetic Materials</i> , 2017, 422, 412-418.	1.0	7
43	Spin superconductivity in the frustrated two-dimensional antiferromagnet in the square lattice. <i>Journal of Magnetism and Magnetic Materials</i> , 2017, 423, 51-56.	1.0	5
44	Superconductivity in the two-dimensional generalized Hubbard model. <i>Physica C: Superconductivity and Its Applications</i> , 2016, 527, 33-35.	0.6	4
45	Spin superfluidity in the anisotropic XY model in the triangular lattice. <i>Solid State Communications</i> , 2016, 239, 5-8.	0.9	13
46	Spin transport in the frustrated anisotropic two-dimensional ferromagnet in the square lattice. <i>Solid State Communications</i> , 2016, 240, 28-32.	0.9	1
47	Spin transport in the frustrated anisotropic three-dimensional XY model. <i>Solid State Communications</i> , 2016, 248, 115-119.	0.9	6
48	Influence of dilution in the spin transport in the quantum anisotropic two-dimensional Heisenberg antiferromagnet. <i>Journal of Magnetism and Magnetic Materials</i> , 2016, 411, 108-112.	1.0	9
49	Spin conductivity of the two-dimensional anisotropic frustrated Heisenberg model in the honeycomb lattice. <i>Solid State Communications</i> , 2016, 237-238, 19-23.	0.9	12
50	Spin conductivity of the two-dimensional ferroquadrupolar Heisenberg model. <i>Solid State Communications</i> , 2016, 228, 6-9.	0.9	14
51	Effect of the site dilution on spin transport in the two-dimensional biquadratic Heisenberg model. <i>Journal of Magnetism and Magnetic Materials</i> , 2016, 405, 332-336.	1.0	11
52	Controlling the range of interactions in the classical inertial ferromagnetic Heisenberg model: analysis of metastable states. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2015, 2015, P04012.	0.9	23
53	Critical behavior of the site diluted quantum anisotropic Heisenberg model in two dimensions. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2015, 438, 579-585.	1.2	10
54	Spin transport in the two-dimensional quantum disordered anisotropic Heisenberg model. <i>Journal of Magnetism and Magnetic Materials</i> , 2014, 371, 89-93.	1.0	25

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55	Spin transport of the frustrated integer spin $S$ antiferromagnetic Heisenberg chain. <i>Physica B: Condensed Matter</i> , 2014, 437, 28-31.	1.3	6
56	Kosterlitz-Thouless Transition: The Diluted XY model. <i>Journal of Physics: Conference Series</i> , 2014, 487, 012008.	0.3	2
57	Spin transport of the quantum integer spin $S$ one-dimensional Heisenberg antiferromagnet coupled to phonons. <i>European Physical Journal B</i> , 2013, 86, 1.	0.6	16
58	Low-temperature spin transport in the $S=1$ one- and two-dimensional antiferromagnets with Dzyaloshinskii-Moriya interaction. <i>Physica Status Solidi (B): Basic Research</i> , 2012, 249, 1613-1623.	0.7	31
59	Dynamics of the two-dimensional Heisenberg antiferromagnet in an external magnetic field. <i>European Physical Journal B</i> , 2011, 83, 191-195.	0.6	0
60	Thermal transport in the one-dimensional spin-1/2 anisotropic antiferromagnet in a staggered magnetic field. <i>Journal of Magnetism and Magnetic Materials</i> , 2011, 323, 1064-1067.	1.0	3
61	Spin transport in the anisotropic easy-plane two-dimensional Heisenberg antiferromagnet. <i>Journal of Magnetism and Magnetic Materials</i> , 2010, 322, 668-670.	1.0	16
62	Heat transport in low-dimensional Heisenberg antiferromagnets. <i>Journal of Magnetism and Magnetic Materials</i> , 2010, 322, 2157-2159.	1.0	3
63	Low-temperature spin transport in a $S=1$ one-dimensional antiferromagnet. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 245502.	0.7	17
64	Spin transport in the two-dimensional anisotropic XY model coupled to phonons. <i>Solid State Communications</i> , 2009, 149, 269-272.	0.9	10
65	Dynamics of the anisotropic two-dimensional XY model. <i>European Physical Journal B</i> , 2009, 70, 335-342.	0.6	24
66	Spin transport in antiferromagnets in one and two dimensions calculated using the Kubo formula. <i>Physical Review B</i> , 2009, 79, .	1.1	56
67	Spin dynamics in the one-dimensional antiferromagnet with Dzyaloshinskii-Moriya interaction. <i>Journal of Magnetism and Magnetic Materials</i> , 2008, 320, 2316-2318.	1.0	10
68	Three-magnon process in the one-dimensional integer spin antiferromagnetic Heisenberg chain. <i>Solid State Communications</i> , 2008, 148, 541-544.	0.9	8
69	The phase diagram and critical properties of the two-dimensional anisotropic XY model. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 015208.	0.7	24
70	Dynamics of the quantum integer spin $S$ one-dimensional Heisenberg antiferromagnet coupled to phonons. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 436218.	0.7	2