Claudio Furtado

List of Publications by Year in descending order

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145 papers	4,394 citations	81900 39 h-index	123424 61 g-index
148 all docs	148 docs citations	148 times ranked	589 citing authors

#	Article	IF	Citations
1	Landau levels in the presence of disclinations. Physics Letters, Section A: General, Atomic and Solid State Physics, 1994, 195, 90-94.	2.1	191
2	Brane structure from a scalar field in warped spacetime. Journal of Cosmology and Astroparticle Physics, 2004, 2004, 002-002.	5.4	139
3	Landau levels in the presence of a screw dislocation. Europhysics Letters, 1999, 45, 279-282.	2.0	131
4	Harmonic oscillator interacting with conical singularities. Journal of Physics A, 2000, 33, 5513-5519.	1.6	129
5	On the binding of electrons and holes to disclinations. Physics Letters, Section A: General, Atomic and Solid State Physics, 1994, 188, 394-396.	2.1	121
6	Landau levels in the presence of topological defects. Journal of Physics A, 2001, 34, 5945-5954.	1.6	118
7	On the Kleinâ€“Gordon oscillator subject to a Coulomb-type potential. Annals of Physics, 2015, 355, 48-54.	2.8	116
8	Kleinâ€“Gordon oscillator in Kaluzaâ€“Klein theory. European Physical Journal C, 2016, 76, 1.	3.9	107
9	Quantum scattering by a magnetic flux screw dislocation. Physics Letters, Section A: General, Atomic and Solid State Physics, 2001, 289, 160-166.	2.1	101
10	On the interaction of the Dirac oscillator with the Aharonovâ€“Casher system in topological defect backgrounds. Annals of Physics, 2013, 336, 489-504.	2.8	90
11	Landau levels analog to electric dipole. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 348, 135-140.	2.1	89
12	Geometric phases in graphitic cones. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 5368-5371.	2.1	87
13	Landau quantization of neutral particles in an external field. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 358, 336-338.	2.1	85
14	Global effects due to cosmic defects in Kaluza-Klein theory. Physical Review D, 1999, 59, .	4.7	78
15	Quantum ring in a rotating frame in the presence of a topological defect. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 11-15.	2.1	75
16	Dirac oscillator interacting with a topological defect. Physical Review A, 2011, 84, .	2.5	74
17	On a relativistic particle and a relativistic position-dependent mass particle subject to the Kleinâ€“Gordon oscillator and the Coulomb potential. Annals of Physics, 2016, 370, 128-136.	2.8	74
18	Bound states for neutral particles in a rotating frame in the cosmic string spacetime. Physical Review D, 2010, 82, .	4.7	73

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19	Geometric phase for a neutral particle in the presence of a topological defect. Physical Review D, 2008, 78, .	4.7	71
20	Landau quantization for a neutral particle in the presence of topological defects. Physical Review D, 2009, 79, .	4.7	71
21	Quantum influence of topological defects in GÃ¶del-type space-times. European Physical Journal C, 2014, 74, 1.	3.9	71
22	Nonrelativistic scattering problem by a global monopole. Physical Review D, 1997, 56, 1345-1348.	4.7	67
23	Geometric phase for a neutral particle in rotating frames in a cosmic string spacetime. Physical Review D, 2009, 80, .	4.7	64
24	Landau levels in graphene layers with topological defects. European Physical Journal B, 2012, 85, 1.	1.5	61
25	An analogy of the quantum hall conductivity in a Lorentz-symmetry violation setup. Journal of Physics G: Nuclear and Particle Physics, 2012, 39, 105004.	3.6	58
26	Landau quantization and curvature effects in a two-dimensional quantum dot. Europhysics Letters, 2007, 79, 57001.	2.0	55
27	Influence of topology in a quantum ring. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 3894-3897.	2.1	55
28	Noncommutative Anandan quantum phase. Physical Review A, 2007, 76, .	2.5	49
29	On the confinement of a Dirac particle to a two-dimensional ring. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 1269-1273.	2.1	49
30	Dual Aharonovâ€“Bohm Effect. Physica Scripta, 2005, 71, 7-11.	2.5	48
31	Gravitational Berryâ€™s quantum phase. Physical Review D, 2000, 62, .	4.7	45
32	Quantum dot in a graphene layer with topological defects. European Physical Journal Plus, 2014, 129, 1.	2.6	45
33	AHARONOVâ€“BOHM EFFECT FOR BOUND STATES IN KALUZAâ€“KLEIN THEORY. Modern Physics Letters A, 2000, 15, 253-258.	1.2	44
34	Relativistic Landau quantization for a neutral particle. Physical Review A, 2009, 80, .	2.5	44
35	Gravitational geometric phase in the presence of torsion. European Physical Journal C, 2009, 60, 501.	3.9	43
36	Berry's quantum phase in media with dislocations. Europhysics Letters, 2000, 52, 1-7.	2.0	42

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37	Linear confinement of a scalar particle in a GÃ¶del-type spacetime. European Physical Journal C, 2018, 78, 1.	3.9	42
38	QUANTUM EFFECTS DUE TO A MAGNETIC FLUX ASSOCIATED TO A TOPOLOGICAL DEFECT. International Journal of Modern Physics A, 2005, 20, 6051-6064.	1.5	40
39	Elastic Landau levels. Journal of Physics Condensed Matter, 2008, 20, 125209.	1.8	39
40	Quantum dynamics of magnetic and electric dipoles and the geometric phase. Physical Review A, 2004, 69, .	2.5	38
41	Holonomic quantum computation associated with a defect structure of conical graphene. Europhysics Letters, 2009, 87, 30002.	2.0	38
42	THE ANALOGUE OF THE AHARONOVâ€“BOHM EFFECT FOR BOUND STATES FOR NEUTRAL PARTICLES. Modern Physics Letters A, 2011, 26, 1331-1341.	1.2	38
43	Two-dimensional quantum ring in a graphene layer in the presence of a Aharonovâ€“Bohm flux. Annals of Physics, 2016, 373, 273-285.	2.8	37
44	RELATIVISTIC LANDAUâ€“AHARONOVâ€“CASHER QUANTIZATION IN TOPOLOGICAL DEFECT SPACEâ€“TIME. International Journal of Modern Physics D, 2010, 19, 85-96.	2.1	36
45	Aharonovâ€“Bohm effect in the presence of a density of defects. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 296, 171-175.	2.1	35
46	Landau analog levels for dipoles in non-commutative space andÂphase space. European Physical Journal C, 2008, 56, 597-606.	3.9	34
47	Anandan quantum phase for a neutral particle withÂFermiâ€“Walker reference frame in the cosmic string background. European Physical Journal C, 2010, 69, 531-539.	3.9	34
48	Charge Localization around Disclinations in Monolayer Graphite. Physica Status Solidi (B): Basic Research, 1998, 207, 387-392.	1.5	33
49	Quantum holonomies for an electric dipole moment. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 3956-3959.	2.1	32
50	Fermions in GÃ¶del-type background space-times with torsion and the Landau quantization. European Physical Journal Plus, 2017, 132, 1.	2.6	32
51	Abelian geometric phase due to the presence of an edge dislocation. Physical Review A, 2013, 87, .	2.5	31
52	Geometric phases modified by a Lorentz-symmetry violation background. International Journal of Modern Physics A, 2015, 30, 1550072.	1.5	30
53	Mechanically deformed crumpled surfaces. Journal Physics D: Applied Physics, 1989, 22, 1217-1221.	2.8	29
54	Scalar fields and exact invariants in a Friedmann-Robertson-Walker spacetime. Physical Review D, 2004, 70, .	4.7	29

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55	GÃ¶del solution in modified gravity. Physical Review D, 2009, 79, .	4.7	29
56	Scalar Aharonovâ€Bohm effect in the presence of a topological defect. Annalen Der Physik, 2010, 522, 447-455.	2.4	29
57	Self-forces on electric and magnetic linear sources in the space-time of a cosmic string. Physical Review D, 1995, 51, 7140-7143.	4.7	28
58	Quantum ring in gapped graphene layer with wedge disclination in the presence of a uniform magnetic field. European Physical Journal Plus, 2018, 133, 1.	2.6	28
59	A Kaluzaâ€“Klein description of geometric phases in graphene. Annals of Physics, 2012, 327, 2946-2954.	2.8	27
60	Yet another position-dependent mass quantum model. Journal of Mathematical Physics, 2012, 53, .	1.1	27
61	Landau quantization for an induced electric dipole in the presence of topological defects. Open Physics, 2010, 8, .	1.7	26
62	Solid-state analog for the He-McKellar-Wilkens quantum phase. Europhysics Letters, 2003, 62, 306-312.	2.0	24
63	On the effects of a screw dislocation and a linear potential on the harmonic oscillator. Physica B: Condensed Matter, 2016, 496, 45-48.	2.7	24
64	Induced electric dipole in a quantum ring. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 2926-2930.	2.1	23
65	On the Aharonov-Casher system and the Landau-Aharonov-Casher system confined to a two-dimensional quantum ring. Journal of Mathematical Physics, 2012, 53, 023514.	1.1	22
66	One-qubit quantum gates associated with topological defects in solids. Quantum Information Processing, 2013, 12, 119-128.	2.2	22
67	Exact linear invariants and quantum effects in the early universe. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2007, 651, 384-387.	4.1	21
68	BOUND STATES IN THE DYNAMICS OF A DIPOLE IN THE PRESENCE OF A CONICAL DEFECT. Modern Physics Letters A, 2005, 20, 1991-1995.	1.2	19
69	Persistent currents for a moving neutral particle with no permanent electric dipole moment. European Physical Journal B, 2014, 87, 1.	1.5	18
70	Weyl fermions in a family of GÃ¶del-type geometries with a topological defect. International Journal of Modern Physics D, 2018, 27, 1850027.	2.1	18
71	THE SELF-ENERGY OF A CHARGED PARTICLE IN THE PRESENCE OF A TOPOLOGICAL DEFECT DISTRIBUTION. International Journal of Modern Physics A, 2004, 19, 2113-2122.	1.5	17
72	Description for rotating C60 fullerenes via an analogue of GÃ¶del-type metric. European Physical Journal Plus, 2016, 131, 1.	2.6	17

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73	The geometric theory of defects description for C60 fullerenes in a rotating frame. European Physical Journal Plus, 2017, 132, 1.	2.6	17
74	Geometric phases and squeezed quantum states of relic gravitons. Journal of Mathematical Physics, 2009, 50, .	1.1	16
75	Dynamical Chernâ€“Simons modified gravity, GÃ¶del Universe and variable cosmological constant. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 693, 494-497.	4.1	16
76	Landau quantization for an electric quadrupole moment. Physica Scripta, 2011, 84, 045023.	2.5	16
77	Bound states in disclinated graphene with Coulomb impurities in the presence of a uniform magnetic field. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 2317-2324.	2.1	15
78	Berryâ€™s phase for a spin 1/2 particle in the presence ofÂtopologicalÂdefects. European Physical Journal C, 2008, 57, 817-822.	3.9	14
79	Circular orbits in cosmic string andÂSchwarzschildâ€“AdSÂspacetime with Fermiâ€“Walker transport. European Physical Journal C, 2009, 63, 149-155.	3.9	14
80	Holonomic quantum computation based on the scalar Aharonovâ€“Bohm effect for neutral particles and linear topological defects. Annals of Physics, 2012, 327, 376-385.	2.8	14
81	Lorentz symmetry breaking effects on relativistic EPR correlations. European Physical Journal C, 2015, 75, 1.	3.9	14
82	Analysis of the interaction of an electron with radial electric fields in the presence of a disclination. International Journal of Geometric Methods in Modern Physics, 2019, 16, 1950172.	2.0	13
83	HQC with the AC setup associated with topological defects. Quantum Information and Computation, 2011, 11, 444-455.	0.3	13
84	AHARONOVâ€“BOHM EFFECT AND DISCLINATIONS IN AN ELASTIC MEDIUM. Modern Physics Letters A, 2006, 21, 1393-1403.	1.2	12
85	Geometric model of a fullerene molecule in the presence of Aharonovâ€“Bohm flux. Journal of Physics and Chemistry of Solids, 2014, 75, 1265-1268.	4.0	12
86	Horava-Lifshitz gravity and GÃ¶del universe. Physical Review D, 2011, 84, .	4.7	11
87	Graphene wormhole trapped by external magnetic field. Nuclear Physics B, 2020, 950, 114853.	2.5	10
88	Aharonovâ€“Casher effect in the presence of spin-dependent potential. Annals of Physics, 2020, 422, 168325.	2.8	10
89	Gaussian wave packet states of scalar fields in a universe of de Sitter. Journal of Mathematical Physics, 2009, 50, 083511.	1.1	9
90	RELATIVISTIC EINSTEINâ€“PODOLSKYâ€“ROSEN CORRELATIONS IN COSMIC STRING SPACEâ€“TIME VIA FERMIâ€“WALKER TRANSPORT. International Journal of Quantum Information, 2010, 08, 1277-1288.	1.1	9

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91	Light propagation: From dielectrics to curved spacetimes. Europhysics Letters, 2011, 94, 30002.	2.0	9
92	Relativistic Anandan quantum phase and the Aharonovâ€“Casher effect under Lorentz symmetry breaking effects in the cosmic string spacetime. Annals of Physics, 2016, 372, 544-552.	2.8	9
93	Gaussian wave packet states of relic gravitons. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 671, 314-317.	4.1	8
94	Geometric quantum phase for displaced states for a particle with an induced electric dipole moment. Europhysics Letters, 2016, 115, 20001.	2.0	8
95	Evolution of Landau levels in graphene-based topological insulators in the presence of wedge disclinations. Annals of Physics, 2017, 383, 610-619.	2.8	8
96	A quantum ring in a nanosphere. International Journal of Geometric Methods in Modern Physics, 2019, 16, 1950167.	2.0	8
97	Electrostatic self-force in -dimensional cosmological gravity. Classical and Quantum Gravity, 1997, 14, 3425-3432.	4.0	7
98	Self-forces on electric and magnetic linear sources in the presence of a torsional defect. Physical Review D, 2000, 62, .	4.7	7
99	On the localization of electrons and holes by a disclination core. Physics Letters, Section A: General, Atomic and Solid State Physics, 2001, 288, 329-334.	2.1	7
100	Dipole dynamics in the presence of a cosmic string. Journal of Physics A, 2001, 34, 6119-6125.	1.6	7
101	Loop variables in the geometry of a rotating black string. Classical and Quantum Gravity, 2003, 20, 2063-2074.	4.0	7
102	Dual equivalence between self-dual and Maxwell-Chern-Simons models with Lorentz symmetry breaking. Physical Review D, 2008, 78, .	4.7	7
103	Persistent spin currents in an elastic Landau system. European Physical Journal B, 2013, 86, 1.	1.5	7
104	Degenerate Landau levels for tripod-type cold atoms in U(2) Abelian gauge field. European Physical Journal D, 2014, 68, 1.	1.3	7
105	De Haas-van Alphen effect of a two-dimensional ultracold atomic gas. Physica B: Condensed Matter, 2016, 481, 19-23.	2.7	7
106	Topological interactions in spacetimes with thick line defects. Physical Review D, 2003, 68, .	4.7	6
107	Geometric phase for fermionic quasiparticles scattering by disgyration in superfluids. Europhysics Letters, 2004, 67, 538-544.	2.0	6
108	Influence of the topology in EPR correlations. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 065301.	2.1	6

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109	TOPOLOGICAL DEFECT DISTRIBUTIONS AND THE SELF-ENERGY OF A CHARGED PARTICLE. International Journal of Modern Physics D, 2009, 18, 237-249.	2.1	6
110	Quantum Scattering of an Electric Dipole by a Charged Screw Dislocation. Progress of Theoretical Physics, 2010, 124, 547-553.	2.0	6
111	Aharonov-Bohm effect for light in a moving medium. Physical Review A, 2014, 90, .	2.5	6
112	Strong gravitational lensing in a spacetime with topological charge within the Eddington-inspired Born-Infeld gravity. Physical Review D, 2021, 103, .	4.7	6
113	Semiclassical treatment of an attractive inverse-square potential in an elastic medium with a disclination. International Journal of Geometric Methods in Modern Physics, 2020, 17, 2050178.	2.0	6
114	THE GÃ–DEL METRIC IN THE CHERN-SIMONS MODIFIED GRAVITY. International Journal of Modern Physics Conference Series, 2012, 18, 145-149.	0.7	5
115	Holonomy transformations and application in the curved structure of graphene. European Physical Journal Plus, 2013, 128, 1.	2.6	5
116	Gap-dependent mass of a photon in a photonic topological insulator. Physical Review A, 2017, 96, .	2.5	5
117	Quantum holonomies for displaced Landauâ€“Aharonovâ€“Casher states. Quantum Information Processing, 2014, 13, 1563-1572.	2.2	4
118	On the missing magnetic flux and topological effects of a screw dislocation on a charged particle in an inhomogeneous magnetic field. Annals of Physics, 2021, 433, 168598.	2.8	4
119	CIRCULAR ORBITS AROUND SCHWARZSCHILDâ€“AdS SPACETIME. Modern Physics Letters A, 2004, 19, 2683-2695.	1.2	3
120	Influence of electronâ€“phonon interaction on soliton mediated spinâ€“charge conversion effects in two-component polymer model. Annals of Physics, 2010, 325, 455-464.	2.8	3
121	Geometric quantum phase in the spacetime of topological defects. Journal of Physics: Conference Series, 2011, 306, 012069.	0.4	3
122	COHERENT STATES OF LIGHT PROPAGATING IN CURVED SPACETIMES. International Journal of Modern Physics Conference Series, 2012, 18, 140-144.	0.7	3
123	Wigner rotation via Fermiâ€“Walker transport and relativistic EPR correlations in the Schwarzschild spacetime. International Journal of Quantum Information, 2015, 13, 1550020.	1.1	3
124	de Haas-van Alphen oscillations for neutral atoms in electric fields. European Physical Journal Plus, 2016, 131, 1.	2.6	3
125	On the confinement of massless Dirac fermions in topological MÃ¶bius strips. International Journal of Modern Physics B, 2016, 30, 1650224.	2.0	3
126	Berryâ€™s phase for displaced Landau-He-McKellar-Wilkens states. European Physical Journal Plus, 2016, 131, 1.	2.6	3

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127	Coherent states of Landauâ€“Aharonovâ€“Casher levels. International Journal of Modern Physics B, 2016, 30, 1650022.	2.0	3
128	Aharonov-Bohm effect in graphene MÃ¶bius strips: an analytical treatment. European Physical Journal B, 2017, 90, 1.	1.5	3
129	Evidence for field induced proximity type behavior in based ferromagnetic nanofluid. Philosophical Magazine Letters, 2017, 97, 287-293.	1.2	3
130	NON-ADIABATIC BERRY'S QUANTUM PHASES IN ANISOTROPIC UNIVERSES. Modern Physics Letters A, 2002, 17, 1665-1672.	1.2	2
131	Global Properties of the Black Cigar Spacetime. Journal of High Energy Physics, 2004, 2004, 029-029.	4.7	2
132	Analogue of the quantum Hall effect for neutral particles with magnetic dipole moment. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 849-851.	2.1	2
133	Graphene-based topological insulator in the presence of a disclination submitted to a uniform magnetic field. Annals of Physics, 2021, 425, 168384.	2.8	2
134	On an attractive inverse-square potential in an elastic medium with a screw dislocation. International Journal of Modern Physics A, 2021, 36, 2150066.	1.5	2
135	Quantum holonomy based in a Kaluzaâ€“Klein description for defects in C60 fullerenes. International Journal of Geometric Methods in Modern Physics, 2021, 18, 2150163.	2.0	2
136	Holonomy transformation in the FRW metric. General Relativity and Gravitation, 2007, 39, 1311-1322.	2.0	1
137	GEOMETRIC PHASES, SQUEEZED QUANTUM STATES AND GAUSSIAN WAVE PACKET STATES OF RELIC GRAVITONS. International Journal of Modern Physics Conference Series, 2012, 18, 13-17.	0.7	1
138	Residual degeneracy from non-degenerate Landau levels of ultracold atoms in light-induced gauge potentials. Physica B: Condensed Matter, 2016, 498, 15-20.	2.7	1
139	Self-interaction in the von KÃ¡rmÃ¡n cosmic string street configuration. European Physical Journal C, 2008, 58, 331-335.	3.9	0
140	Quantum rings in a space with topological defects. Journal of Physics: Conference Series, 2010, 249, 012041.	0.4	0
141	Some remarks on Landau quantization for induced dipole. Physica Scripta, 2012, T151, 014075.	2.5	0
142	LANDAU QUANTIZATION FOR A NEUTRAL PARTICLE IN THE PRESENCE OF TOPOLOGICAL DEFECTS. International Journal of Modern Physics Conference Series, 2012, 18, 101-104.	0.7	0
143	An analog of magnetic oscillations for neutral atoms with induced electric dipole. International Journal of Modern Physics B, 2018, 32, 1850206.	2.0	0
144	Landau Quantization for Î›-Type Neutral Atoms in an Homogeneous Spin-Dependent Gauge Potential. Brazilian Journal of Physics, 2020, 50, 30-34.	1.4	0

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145	Transfer-matrix method of circular polarization light in an axionic photonic insulator. Physical Review A, 2021, 104, .	2.5	0