

Fernando J S Moraes

List of Publications by Year in descending order

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148
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152
times ranked

1203
citing authors

#	ARTICLE	IF	CITATIONS
1	A simple light-trapping device from a hyperbolic metamaterial on a catenoid. <i>Europhysics Letters</i> , 2022, 137, 45001.	0.7	1
2	Classical Kalb-Ramond field theory in curved spacetimes. <i>Physical Review D</i> , 2022, 105, .	1.6	4
3	Magnetic and geometric effects on the electronic transport of metallic nanotubes. <i>Journal of Applied Physics</i> , 2021, 129, .	1.1	2
4	Implications of Kleinian relativity. <i>Physical Review D</i> , 2021, 103, .	1.6	6
5	Optical wormhole from hollow disclinations. <i>Physical Review A</i> , 2021, 103, .	1.0	8
6	Geometric effects on the electronic structure of curved nanotubes and curved graphene: the case of the helix, catenary, helicoid, and catenoid. <i>European Physical Journal Plus</i> , 2021, 136, 1.	1.2	8
7	Thermal Rectification Film using Liquid Crystalline Asymmetric Diodes. <i>Brazilian Journal of Physics</i> , 2021, 51, 1636.	0.7	0
8	Current vortices in hexagonal graphene quantum dots. <i>Physical Review B</i> , 2021, 104, .	1.1	1
9	Surfing on curved surfaces – The Maple Package Surf. <i>Computer Physics Communications</i> , 2020, 249, 107002.	3.0	1
10	Improving student understanding of electrodynamics: The case for differential forms. <i>American Journal of Physics</i> , 2020, 88, 1083-1093.	0.3	3
11	Spin current generation and control in carbon nanotubes by combining rotation and magnetic field. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 185301.	0.7	6
12	Evidence for flat zero-energy bands in bilayer graphene with a periodic defect lattice. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2020, 119, 113987.	1.3	4
13	On the energy of topological defect lattices. <i>Condensed Matter Physics</i> , 2020, 23, 23701.	0.3	1
14	High rectification in a broadband subwavelength acoustic device using liquid crystals. <i>Journal of Applied Physics</i> , 2019, 125, 204503.	1.1	4
15	Schrödinger formalism for a particle constrained to a surface in R ¹³ . <i>Journal of Mathematical Physics</i> , 2019, 60, .	0.5	7
16	Position-dependent mass effects in the electronic transport of two-dimensional quantum systems: Applications to nanotubes. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2019, 108, 139-146.	1.3	12
17	Thermal and shape topological robustness of heat switchers using nematic liquid crystals. <i>European Physical Journal E</i> , 2018, 41, 16.	0.7	6
18	Topological and non inertial effects on the interband light absorption. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2018, 382, 432-439.	0.9	7

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19	Optical concentrator from a hyperbolic liquid-crystal metamaterial. <i>Europhysics Letters</i> , 2018, 124, 34006.	0.7	4
20	Effects of rotation on Landau states of electrons on a spherical shell. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2018, 382, 2499-2505.	0.9	4
21	High Thermal Rectifications Using Liquid Crystals Confined into a Conical Frustum. <i>Brazilian Journal of Physics</i> , 2018, 48, 315-321.	0.7	8
22	Torsion effects on condensed matter: like a magnetic field but not so much. <i>European Physical Journal B</i> , 2017, 90, 1.	0.6	6
23	Using torsion to manipulate spin currents. <i>Europhysics Letters</i> , 2017, 117, 47007.	0.7	3
24	Geometrical optics limit of phonon transport in a channel of disclinations. <i>European Physical Journal B</i> , 2017, 90, 1.	0.6	13
25	Relativistic quantum dynamics on a double cone. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2017, 50, 065302.	0.7	1
26	Cosmology in the laboratory: An analogy between hyperbolic metamaterials and the Milne universe. <i>Physical Review D</i> , 2017, 96, .	1.6	11
27	Wiggly cosmic string as a waveguide for massless and massive fields. <i>Physical Review D</i> , 2017, 96, .	1.6	3
28	Tayloring energy levels with curvature ? An illustration of Da Costa formalism. <i>Journal of Physics: Conference Series</i> , 2017, 785, 012003.	0.3	1
29	Inertial and topological effects on a 2D electron gas. <i>Journal of Physics Communications</i> , 2017, 1, 035004.	0.5	4
30	Retrieving the saddle-splay elastic constant K_{24} of nematic liquid crystals from an algebraic approach. <i>European Physical Journal E</i> , 2016, 39, 83.	0.7	13
31	Modeling Kleinian cosmology with electronic metamaterials. <i>Physical Review D</i> , 2016, 94, .	1.6	14
32	Thermal diode made by nematic liquid crystal. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2016, 380, 3121-3127.	0.9	14
33	Geometric effects in the electronic transport of deformed nanotubes. <i>Nanotechnology</i> , 2016, 27, 135302.	1.3	24
34	Optics near a hyperbolic defect. <i>Physical Review A</i> , 2015, 92, .	1.0	20
35	The combined effect of inertial and electromagnetic fields in a fullerene molecule. <i>European Physical Journal B</i> , 2015, 88, 1.	0.6	13
36	Theoretical study of carbon double cones. <i>European Physical Journal B</i> , 2015, 88, 1.	0.6	4

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37	Generation of optical vorticity from topological defects. <i>Physica B: Condensed Matter</i> , 2015, 476, 19-23.	1.3	13
38	Tuning the Hall conductivity with rotation. <i>Europhysics Letters</i> , 2015, 110, 27003.	0.7	5
39	Spin splitting at the Fermi level in carbon nanotubes in the absence of a magnetic field. <i>European Physical Journal B</i> , 2015, 88, 1.	0.6	12
40	Inertial-Hall effect: the influence of rotation on the Hall conductivity. <i>Results in Physics</i> , 2015, 5, 55-59.	2.0	15
41	Indirect band gap in graphene from modulation of the Fermi velocity. <i>Solid State Communications</i> , 2015, 201, 82-87.	0.9	22
42	A geometric approach to dislocation densities in semiconductors. <i>Modern Physics Letters B</i> , 2014, 28, 1450124.	1.0	0
43	Optical properties of B x N y C z monolayers. <i>Applied Physics A: Materials Science and Processing</i> , 2014, 117, 2095-2100.	1.1	11
44	A Geometric Approach to Dislocation Densities in Semiconductors. , 2014, , 193-198.		0
45	Principles of thermal design with nematic liquid crystals. <i>Physical Review E</i> , 2014, 89, 020501.	0.8	17
46	Effects of rotation in the energy spectrum of C60. <i>European Physical Journal D</i> , 2014, 68, 1.	0.6	24
47	Landau levels, self-adjoint extensions and Hall conductivity on a cone. <i>European Physical Journal Plus</i> , 2014, 129, 1.	1.2	18
48	Holonomy transformations and application in the curved structure of graphene. <i>European Physical Journal Plus</i> , 2013, 128, 1.	1.2	5
49	Modeling heat conduction in the presence of a dislocation. <i>International Journal of Thermal Sciences</i> , 2013, 67, 64-71.	2.6	14
50	Metric approach for sound propagation in nematic liquid crystals. <i>Physical Review E</i> , 2013, 87, 022506.	0.8	17
51	Fermionic Casimir densities in a conical space with a circular boundary and magnetic flux. <i>Physical Review D</i> , 2012, 85, .	1.6	20
52	Structural and electronic properties of BN Möbius stripes. <i>European Physical Journal B</i> , 2012, 85, 1.	0.6	6
53	Threading dislocation densities in semiconductor crystals: A geometric approach. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2012, 376, 2838-2841.	0.9	47
54	Yet another position-dependent mass quantum model. <i>Journal of Mathematical Physics</i> , 2012, 53, .	0.5	27

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55	Electric field induced inversion of the sign of half-integer disclinations in nematic liquid crystals. <i>Soft Matter</i> , 2011, 7, 10961.	1.2	6
56	Dirac oscillator interacting with a topological defect. <i>Physical Review A</i> , 2011, 84, .	1.0	74
57	Diffraction of light by topological defects in liquid crystals. <i>Liquid Crystals</i> , 2011, 38, 295-302.	0.9	19
58	Simplified model for the dynamics of a helical flagellum. <i>American Journal of Physics</i> , 2011, 79, 736-740.	0.3	13
59	Kinematic negative birefringence in fast-moving dielectrics. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2011, 28, 765.	0.9	4
60	Kinematic negative birefringence in fast-moving dielectrics: addendum. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2011, 28, 2057.	0.9	0
61	Data transmission by hypergeometric modes through a hyperbolic-index medium. <i>Optics Express</i> , 2011, 19, 11264.	1.7	13
62	Flowing liquid crystal simulating the Schwarzschild metric. <i>Open Physics</i> , 2011, 9, .	0.8	7
63	Electronic structure of boron nitride nanostructures doped with a carbon atom. <i>European Physical Journal B</i> , 2010, 73, 211-214.	0.6	8
64	Influence of electron-phonon interaction on soliton mediated spin-charge conversion effects in two-component polymer model. <i>Annals of Physics</i> , 2010, 325, 455-464.	1.0	3
65	The effect of singular potentials on the harmonic oscillator. <i>Annals of Physics</i> , 2010, 325, 2529-2541.	1.0	28
66	Energetic stability of boron nitride nanostructures doped with one carbon atom. <i>International Journal of Quantum Chemistry</i> , 2010, 110, 1778-1783.	1.0	6
67	On nonequilibrium liquid-gas coexistence. <i>European Journal of Physics</i> , 2010, 31, 401-406.	0.3	0
68	8th Ibero-American Workshop on Complex Fluids and their Applications, João Pessoa, Paraíba, Brazil, 8-11 September 2009. <i>Liquid Crystals Today</i> , 2010, 19, 23-25.	2.3	0
69	Nematic liquid crystal dynamics under applied electric fields. <i>Physical Review E</i> , 2010, 82, 041707.	0.8	22
70	Structure of the dielectric tensor in nematic liquid crystals with topological charge. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2010, 27, 1466.	0.8	5
71	Long-range elastic-mediated interaction between nanoparticles adsorbed on free-standing smectic films. <i>Physical Review E</i> , 2009, 80, 042702.	0.8	4
72	Temperature as a Control Parameter of the Light Trajectories in Nematics with Topological Defects. <i>Molecular Crystals and Liquid Crystals</i> , 2009, 508, 261/[623]-266/[628].	0.4	8

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73	AN ASYMMETRIC FAMILY OF COSMIC STRINGS. <i>Modern Physics Letters A</i> , 2009, 24, 1437-1442.	0.5	5
74	Geometric phases in graphitic cones. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2008, 372, 5368-5371.	0.9	87
75	Metal-free spin channels in graphitic boron-nitrogen nanostructures. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2008, 372, 5492-5497.	0.9	0
76	On the quantum dynamics of a point particle in conical space. <i>Annals of Physics</i> , 2008, 323, 3150-3157.	1.0	46
77	Berry's phase for a spin 1/2 particle in the presence of topological defects. <i>European Physical Journal C</i> , 2008, 57, 817-822.	1.4	14
78	Self-interaction in the von Klitzing cosmic string street configuration. <i>European Physical Journal C</i> , 2008, 58, 331-335.	1.4	0
79	On the deflection of light by topological defects in nematic liquid crystals. <i>European Physical Journal E</i> , 2008, 25, 425-429.	0.7	27
80	Geometric Phase for Light Propagating in Nematics with Disclinations. <i>Molecular Crystals and Liquid Crystals</i> , 2008, 494, 172-178.	0.4	0
81	Aharonov-Bohm-like effect for light propagating in nematics with disclinations. <i>Europhysics Letters</i> , 2007, 80, 46002.	0.7	26
82	Extensões auto-adjuntas de operadores em mecânica quântica. <i>Revista Brasileira De Ensino De Fisica</i> , 2007, 29, 11-13.	0.2	0
83	The bound-state Aharonov-Bohm effect around a cosmic string revisited. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2007, 361, 13-15.	0.9	22
84	Self-interactions in the space-time of a scalar-tensor cosmic string. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2006, 351, 216-219.	0.9	1
85	Lensing effects in a nematic liquid crystal with topological defects. <i>European Physical Journal E</i> , 2006, 20, 173-178.	0.7	55
86	Symmetric flows and Darcy's law in curved spaces. <i>Journal of Physics A</i> , 2006, 39, 1619-1632.	1.6	4
87	Effects of torsion on electromagnetic fields. <i>Brazilian Journal of Physics</i> , 2005, 35, 636-640.	0.7	27
88	A LIQUID CRYSTAL ANALOGUE OF THE COSMIC STRING. <i>Modern Physics Letters A</i> , 2005, 20, 2561-2565.	0.5	32
89	BOUND STATES IN THE DYNAMICS OF A DIPOLE IN THE PRESENCE OF A CONICAL DEFECT. <i>Modern Physics Letters A</i> , 2005, 20, 1991-1995.	0.5	19
90	QUANTUM EFFECTS DUE TO A MAGNETIC FLUX ASSOCIATED TO A TOPOLOGICAL DEFECT. <i>International Journal of Modern Physics A</i> , 2005, 20, 6051-6064.	0.5	40

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91	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.	0.5	17
92	CIRCULAR ORBITS AROUND SCHWARZSCHILD-AdS SPACETIME. Modern Physics Letters A, 2004, 19, 2683-2695.	0.5	3
93	Global Properties of the Black Cigar Spacetime. Journal of High Energy Physics, 2004, 2004, 029-029.	1.6	2
94	Geometric approach to viscous fingering on a cone. Journal of Physics A, 2003, 36, 863-874.	1.6	14
95	Topological interactions in spacetimes with thick line defects. Physical Review D, 2003, 68, .	1.6	6
96	Solid-state analog for the He-McKellar-Wilkens quantum phase. Europhysics Letters, 2003, 62, 306-312.	0.7	24
97	Loop variables in the geometry of a rotating black string. Classical and Quantum Gravity, 2003, 20, 2063-2074.	1.5	7
98	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.	0.9	7
99	Quantum scattering by a magnetic flux screw dislocation. Physics Letters, Section A: General, Atomic and Solid State Physics, 2001, 289, 160-166.	0.9	101
100	Soliton model for proton conductivity in Langmuir films. Chemical Physics Letters, 2001, 340, 205-210.	1.2	23
101	Dipole dynamics in the presence of a cosmic string. Journal of Physics A, 2001, 34, 6119-6125.	1.6	7
102	Landau levels in the presence of topological defects. Journal of Physics A, 2001, 34, 5945-5954.	1.6	118
103	Saffman-Taylor problem on a sphere. Physical Review E, 2001, 63, 036307.	0.8	20
104	Self-force on a point charge and linear source in the space of a screw dislocation. Physics Letters, Section A: General, Atomic and Solid State Physics, 2000, 267, 208-211.	0.9	13
105	Condensed Matter Physics as a laboratory for gravitation and Cosmology. Brazilian Journal of Physics, 2000, 30, 304.	0.7	62
106	AHARONOV-BOHM EFFECT FOR BOUND STATES IN KALUZA-KLEIN THEORY. Modern Physics Letters A, 2000, 15, 253-258.	0.5	44
107	Berry's quantum phase in media with dislocations. Europhysics Letters, 2000, 52, 1-7.	0.7	42
108	Harmonic oscillator interacting with conical singularities. Journal of Physics A, 2000, 33, 5513-5519.	1.6	129

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109	Partition function for a nonlinear supersymmetric model. <i>Journal of Physics A</i> , 2000, 33, 8887-8892.	1.6	1
110	Two-dimensional scattering by disclinations in monolayer graphite. <i>Journal of Physics Condensed Matter</i> , 2000, 12, 7421-7424.	0.7	11
111	Gravity-driven instability in a spherical Hele-Shaw cell. <i>Physical Review E</i> , 2000, 63, 016311.	0.8	9
112	Self-forces on electric and magnetic linear sources in the presence of a torsional defect. <i>Physical Review D</i> , 2000, 62, .	1.6	7
113	Landau levels in the presence of a screw dislocation. <i>Europhysics Letters</i> , 1999, 45, 279-282.	0.7	131
114	Global effects due to cosmic defects in Kaluza-Klein theory. <i>Physical Review D</i> , 1999, 59, .	1.6	78
115	Soliton stability in a $Z(2)$ field theory. <i>Journal of Mathematical Physics</i> , 1999, 40, 3925-3929.	0.5	2
116	On the geometry and conformation of starburst dendrimers. <i>Journal of Mathematical Chemistry</i> , 1998, 22, 97-106.	0.7	5
117	Geodesics around line defects in elastic solids. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1998, 238, 153-158.	0.9	38
118	Topological Aharonov-Bohm effect around a disclination. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1998, 246, 374-376.	0.9	46
119	Charge Localization around Disclinations in Monolayer Graphite. <i>Physica Status Solidi (B): Basic Research</i> , 1998, 207, 387-392.	0.7	33
120	Chiral solitons in generalized Korteweg-de Vries equations. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1998, 249, 450-454.	0.9	3
121	ANOMALOUS DEFECTS AND THEIR QUANTIZED TRANSVERSE CONDUCTIVITIES. <i>International Journal of Modern Physics A</i> , 1998, 13, 841-861.	0.5	17
122	Casimir effect around a screw dislocation. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1998, 78, 1073-1084.	0.8	9
123	Electrostatic self-force in n -dimensional cosmological gravity. <i>Classical and Quantum Gravity</i> , 1997, 14, 3425-3432.	1.5	7
124	Fluctuating metrics in one-dimensional manifolds. <i>Journal of Mathematical Physics</i> , 1997, 38, 5293-5300.	0.5	2
125	Hyperbolic Modeling of Starburst Dendrimers. <i>Molecular Engineering</i> , 1997, 7, 283-291.	0.2	2
126	Geodesics around a dislocation. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1996, 214, 189-192.	0.9	34

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127	Casimir effect around disclinations. Physics Letters, Section A: General, Atomic and Solid State Physics, 1995, 204, 399-404.	0.9	14
128	Self-forces on electric and magnetic linear sources in the space-time of a cosmic string. Physical Review D, 1995, 51, 7140-7143.	1.6	28
129	ENHANCEMENT OF THE MAGNETIC MOMENT OF THE ELECTRON DUE TO A TOPOLOGICAL DEFECT. Modern Physics Letters A, 1995, 10, 2335-2338.	0.5	8
130	GEOMETRICAL SCALING IN THE BETHE LATTICE. Modern Physics Letters B, 1994, 08, 909-915.	1.0	4
131	Landau levels in the presence of disclinations. Physics Letters, Section A: General, Atomic and Solid State Physics, 1994, 195, 90-94.	0.9	191
132	On the binding of electrons and holes to disclinations. Physics Letters, Section A: General, Atomic and Solid State Physics, 1994, 188, 394-396.	0.9	121
133	Symmetry properties of the Bethe and Husimi lattices. Journal De Physique, I, 1993, 3, 29-42.	1.2	10
134	Vitreous B[Formula: see text]O[Formula: see text] : a geometrical study. Journal De Physique, I, 1993, 3, 1119-1130.	1.2	4
135	Metric properties of the Bethe lattice and the Husimi cactus. Journal De Physique, I, 1992, 2, 1657-1666.	1.2	8
136	Metal poly(benzodithiolenes). Macromolecules, 1986, 19, 266-269.	2.2	69
137	Soliton photogeneration in Trans-polyacetylene: Light-induced electron spin resonance. Synthetic Metals, 1986, 13, 113-122.	2.1	37
138	Soliton lattice to metal: A first order phase transition. Solid State Communications, 1985, 53, 757-763.	0.9	81
139	Electron spin echo modulation and relaxation in polythiophene. Solid State Communications, 1985, 53, 497-500.	0.9	15
140	First-order transition to a novel metallic state in $[\text{Nay}+(\text{CH})^{\hat{\alpha}}\text{y}]_x$: In situ electron spin resonance during chemical and electrochemical doping. Synthetic Metals, 1985, 11, 271-292.	2.1	100
141	Doped poly(thiophene): Electron spin resonance determination of the magnetic susceptibility. Synthetic Metals, 1985, 10, 169-179.	2.1	57
142	Poly(methylene ditelluride). Journal of the American Chemical Society, 1985, 107, 675-677.	6.6	19
143	First-Order Phase Transition to the Metallic State in Doped Polyacetylene: Solitons at High Density. , 1985, , 367-378.		0
144	Photoexcitations in poly (thiophene): Photoinduced infrared absorption and photoinduced electron-spin resonance. Physical Review B, 1984, 30, 2948-2950.	1.1	119

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145	Solitons at high density intrans-(CH) _x : Collective transport by mobile, spinless charged solitons. Physical Review B, 1984, 29, 2341-2343.	1.1	144
146	A novel organic photochromic. Journal of the American Chemical Society, 1984, 106, 7131-7133.	6.6	12
147	Synthesis and properties of chemically coupled poly(thiophene). Synthetic Metals, 1984, 9, 77-86.	2.1	347
148	Radial excitation spectrum of a heavy baryon. Lettere Al Nuovo Cimento Rivista Internazionale Della Societ� Italiana Di Fisica, 1979, 26, 466-470.	0.4	5