

Francisco A B F De Moura

List of Publications by Year in descending order

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116
papers

2,232
citations

304602

22
h-index

254106

43
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116
all docs

116
docs citations

116
times ranked

748
citing authors

#	ARTICLE	IF	CITATIONS
1	Delocalization in the 1D Anderson Model with Long-Range Correlated Disorder. Physical Review Letters, 1998, 81, 3735-3738.	2.9	408
2	Bloch-Like Oscillations in a One-Dimensional Lattice with Long-Range Correlated Disorder. Physical Review Letters, 2003, 91, 197402.	2.9	92
3	DNA-based nanobiostructured devices: The role of quasiperiodicity and correlation effects. Physics Reports, 2014, 535, 139-209.	10.3	88
4	Correlation-induced metal-insulator transition in the one-dimensional Anderson model. Physica A: Statistical Mechanics and Its Applications, 1999, 266, 465-470.	1.2	84
5	Convergence to the critical attractor of dissipative maps: Log-periodic oscillations, fractality, and nonextensivity. Physical Review E, 2000, 62, 6361-6365.	0.8	76
6	Nucleotide correlations and electronic transport of DNA sequences. Physical Review E, 2005, 71, 021910.	0.8	73
7	Magnetocaloric effect in kinetically frustrated diamond chains. Physical Review B, 2009, 79, .	1.1	70
8	Delocalization in harmonic chains with long-range correlated random masses. Physical Review B, 2003, 68, .	1.1	68
9	Frequency doubling of Bloch oscillations for interacting electrons in a static electric field. Physical Review B, 2007, 76, .	1.1	61
10	Delocalization and spin-wave dynamics in ferromagnetic chains with long-range correlated random exchange. Physical Review B, 2002, 66, .	1.1	53
11	Localization properties of a one-dimensional tight-binding model with nonrandom long-range intersite interactions. Physical Review B, 2005, 71, .	1.1	48
12	Delocalization and ballistic dynamics in the two-dimensional Anderson model with long-range correlated disorder. Europhysics Letters, 2004, 66, 585-591.	0.7	47
13	Magnetization plateau in diamond chains with delocalized interstitial spins. Physical Review B, 2008, 77, .	1.1	45
14	de Moura and Lyra Reply.. Physical Review Letters, 2000, 84, 199-199.	2.9	40
15	Free-electron gas in the Apollonian network: Multifractal energy spectrum and its thermodynamic fingerprints. Physical Review E, 2009, 79, 016104.	0.8	37
16	Delocalization and wave-packet dynamics in one-dimensional diluted Anderson models. European Physical Journal B, 2003, 36, 81-86.	0.6	32
17	Wave-Packet Dynamics in Chains with Delayed Electronic Nonlinear Response. Physical Review Letters, 2009, 103, 096401.	2.9	32
18	Critical behavior of the two-dimensional Anderson model with long-range correlated disorder. Journal of Physics Condensed Matter, 2007, 19, 476213.	0.7	29

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19	Disorder-assisted distribution of entanglement in X and Y spin chains. Physical Review A, 2017, 96, .	1.2	27
20	Vibrational modes in harmonic chains with diluted disorder. Physica A: Statistical Mechanics and Its Applications, 2005, 357, 165-172.	1.2	26
21	Bose-Einstein condensation in the Apollonian complex network. Physical Review E, 2010, 81, 030104.	0.8	26
22	Numerical study of the one-electron dynamics in one-dimensional systems with short-range correlated disorder. Physica E: Low-Dimensional Systems and Nanostructures, 2012, 45, 97-102.	1.3	23
23	Extended modes and energy dynamics in two-dimensional lattices with correlated disorder. European Physical Journal B, 2008, 66, 165-169.	0.6	20
24	Quantum-state transfer through long-range correlated disordered channels. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 1335-1340.	0.9	20
25	Bloch oscillations in an aperiodic one-dimensional potential. Physical Review B, 2005, 71, .	1.1	19
26	Electronic transport in DNA sequences: The role of correlations and inter-strand coupling. Physica A: Statistical Mechanics and Its Applications, 2006, 370, 625-631.	1.2	19
27	Vibrational modes in aperiodic one-dimensional harmonic chains. Physical Review B, 2006, 73, .	1.1	19
28	Sensitivity to initial conditions of the wave-packet dynamics in diluted Anderson chains. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 355, 468-472.	0.9	18
29	The role of Hubbard-like interaction in the dynamics of two interacting electrons. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 4554-4558.	0.9	18
30	Stationary, dynamical, and spectral electronic properties of a correlated random ladder model with coexisting extended and localized states. Physical Review B, 2010, 81, .	1.1	18
31	Scaling laws for the transmission of random binary dielectric multilayered structures. Physical Review B, 2007, 76, .	1.1	17
32	Dynamics of two interacting electrons in Anderson-Hubbard chains with long-range correlated disorder: Effect of a static electric field. Physical Review B, 2010, 81, .	1.1	17
33	Resonant scattering states in 2D nanostructured waveguides: a boundary wall approach. Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 025402.	0.6	16
34	Absence of localization on the 2d model with long-range correlated off-diagonal disorder. European Physical Journal B, 2010, 78, 335-339.	0.6	16
35	Coherent electronic dynamics and absorption spectra in an one-dimensional model with long-range correlated off-diagonal disorder. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 1048-1052.	0.9	16
36	Adaptive SIR model for propagation of SARS-CoV-2 in Brazil. Physica A: Statistical Mechanics and Its Applications, 2021, 569, 125773.	1.2	16

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37	Stochastic description of the dynamics of a random-exchange Heisenberg chain. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2005, 339, 33-38.	0.9	15
38	Coherent electron dynamics in a two-dimensional random system with mobility edges. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 056204.	0.7	15
39	Bose-Einstein condensation in diamond hierarchical lattices. <i>Physical Review E</i> , 2014, 89, 052133.	0.8	15
40	Electronic transport in poly(CG) and poly(CT) DNA segments with diluted base pairing. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 075109.	0.7	14
41	Effects of nonlinearity on wave-packet dynamics in square and honeycomb lattices. <i>Physical Review B</i> , 2010, 82, .	1.1	14
42	DYNAMICS OF ONE-ELECTRON IN A ONE-DIMENSIONAL SYSTEMS WITH AN APERIODIC HOPPING DISTRIBUTION. <i>International Journal of Modern Physics C</i> , 2011, 22, 63-69.	0.8	14
43	Bias driven coherent carrier dynamics in a two-dimensional aperiodic potential. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2008, 372, 6694-6700.	0.9	13
44	Finite-size scaling and disorder effect on the transmissivity of multilayered structures with metamaterials. <i>Optics Express</i> , 2008, 16, 6860.	1.7	13
45	Suppressed transmission in aperiodically modulated multilayered dielectric structures. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2009, 7, 101-107.	1.0	13
46	Electron self-trapping and self-focusing in periodic chains with a finite nonlinear response time. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2010, 374, 4152-4155.	0.9	13
47	Self-trapping of interacting electrons in crystalline nonlinear chains. <i>European Physical Journal B</i> , 2012, 85, 1.	0.6	13
48	Emergent nonlinear phenomena in discrete-time quantum walks. <i>Physical Review A</i> , 2020, 101, .	1.0	12
49	Critical wave-packet dynamics in the power-law bond disordered Anderson model. <i>Physical Review B</i> , 2005, 71, .	1.1	11
50	Anderson localization in a disordered chain with a finite nonlinear response time. <i>European Physical Journal B</i> , 2011, 80, 321-324.	0.6	11
51	Electron wave packet dynamics in twisted nonlinear ladders with correlated disorder. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2011, 390, 535-540.	1.2	11
52	Localization-delocalization transition in discrete-time quantum walks with long-range correlated disorder. <i>Physical Review E</i> , 2019, 99, 022117.	0.8	11
53	Extended spin waves in aperiodic ferromagnetic chains. <i>European Physical Journal B</i> , 2007, 58, 389-393.	0.6	10
54	Extended acoustic waves in diluted random systems. <i>European Physical Journal B</i> , 2011, 80, 59-63.	0.6	9

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55	Dynamics of one electron in a nonlinear disordered chain. Journal of Physics Condensed Matter, 2012, 24, 245401.	0.7	9
56	Energy transport in a one-dimensional harmonic ternary chain with Ornstein-Uhlenbeck disorder. Journal of Physics Condensed Matter, 2012, 24, 495401.	0.7	9
57	Critical behavior of the ideal-gas Bose-Einstein condensation in the Apollonian network. Physical Review E, 2013, 88, 022139.	0.8	9
58	Electron-soliton dynamics in chains with cubic nonlinearity. Journal of Physics Condensed Matter, 2014, 26, 415401.	0.7	9
59	Electronic transport in methylated fragments of DNA. Applied Physics Letters, 2015, 107, 203701.	1.5	9
60	Localization properties and high-fidelity state transfer in hopping models with correlated disorder. Annals of Physics, 2018, 398, 180-189.	1.0	9
61	Suppression of Bose-Einstein condensation in one-dimensional scale-free random potentials. Physical Review B, 2010, 82, .	1.1	8
62	Vibrational modes in a two-dimensional aperiodic harmonic lattice. Journal of Physics Condensed Matter, 2010, 22, 435401.	0.7	8
63	Localization on a two-channel model with cross-correlated disorder. Journal of Physics Condensed Matter, 2011, 23, 175304.	0.7	8
64	Numerical evidence of electron-soliton dynamics in Fermi-Pasta-Ulam disordered chains. Physica D: Nonlinear Phenomena, 2013, 253, 66-72.	1.3	8
65	Electronic transport in disordered chains mediated by interactions with acoustic waves. Solid State Communications, 2016, 229, 22-27.	0.9	8
66	Robust entanglement transfer through a disordered qubit ladder. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 125847.	0.9	8
67	Resonant states and wavepacket super-diffusion in intra-chain correlated ladders with diluted disorder. Journal of Physics Condensed Matter, 2011, 23, 135303.	0.7	7
68	Electronic dynamics under effect of a nonlinear Morse interaction and a static electric field. Communications in Nonlinear Science and Numerical Simulation, 2016, 40, 6-14.	1.7	7
69	Rogue waves in discrete-time quantum walks. Physical Review A, 2022, 106, .	1.0	7
70	Diffusive, super-diffusive and ballistic transport in the long-range correlated 1D Anderson model. Solid State Communications, 2006, 138, 585-589.	0.9	6
71	Electronic transport in disordered chains with saturable nonlinearity. Physica A: Statistical Mechanics and Its Applications, 2015, 435, 15-21.	1.2	6
72	Quantum entanglement and drifting generated by an ac field resonant with frequency-doubled Bloch oscillations of correlated particles. Physical Review A, 2016, 93, .	1.0	6

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73	Charge transport properties of a twisted DNA molecule: A renormalization approach. <i>Chemical Physics</i> , 2016, 478, 48-54.	0.9	6
74	Nonlinear wave-packet dynamics resonantly driven by AC and DC fields. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2018, 64, 89-97.	1.7	6
75	Delocalized 2-magnons eigenstates in long-range correlated random Heisenberg chains. <i>Journal of Magnetism and Magnetic Materials</i> , 2009, 321, 2304-2310.	1.0	5
76	Kosterlitz-Thouless-like transition in two-dimensional lattices with long-range correlated hopping terms. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2010, 374, 3572-3575.	0.9	5
77	LOCALIZATION OF ACOUSTIC WAVES IN ONE-DIMENSIONAL MODELS WITH CHAOTIC ELASTICITY. <i>International Journal of Modern Physics C</i> , 2011, 22, 573-580.	0.8	5
78	Wavepacket dynamics of coupled particles in aperiodic chains: Weakening of Anderson localization and local field effects. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2014, 395, 22-30.	1.2	5
79	Enhanced localization, energy anomalous diffusion and resonant mode in harmonic chains with correlated mass-spring disorder. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 175401.	0.7	5
80	Methylation effect on the ohmic resistance of a poly-GC DNA-like chain. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2016, 380, 3559-3563.	0.9	5
81	Sub-diffusive spreading and anomalous localization in a 2D Anderson model with off-diagonal nonlinearity. <i>Solid State Communications</i> , 2018, 270, 6-11.	0.9	5
82	Quantum communication through chains with diluted disorder. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2019, 383, 1845-1849.	0.9	5
83	Entanglement generation between distant parties via disordered spin chains. <i>Quantum Information Processing</i> , 2019, 18, 1.	1.0	5
84	Rabi-like quantum communication in an aperiodic spin-1/2 chain. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 505, 166730.	1.0	5
85	Fractality of largest clusters and the percolation transition in power-law diluted chains. <i>Physical Review E</i> , 2005, 72, 016116.	0.8	4
86	Absence of localized acoustic waves in a scale-free correlated random system. <i>Journal of Physics Condensed Matter</i> , 2011, 23, 065101.	0.7	4
87	ENERGY DYNAMICS IN A ONE-DIMENSIONAL APERIODIC ANHARMONIC LATTICE. <i>International Journal of Modern Physics C</i> , 2012, 23, 1240009.	0.8	4
88	Resonant localized states and quantum percolation on random chains with power-law-diluted long-range couplings. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 205401.	0.7	4
89	Dynamics of interacting electrons under effect of a Morse potential. <i>Physical Review E</i> , 2017, 95, 052217.	0.8	4
90	Delocalized Vibrational Modes in Disordered Harmonic Chains with Correlated Spring Constants. <i>Acta Physica Polonica B</i> , 2015, 46, 1247.	0.3	4

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91	Stationary and dynamical aspects of two-magnon states in disordered ferromagnetic chains. <i>Physical Review B</i> , 2005, 72, .	1.1	3
92	Extended acoustic modes in random systems with short range correlations. <i>Journal of Physics Condensed Matter</i> , 2011, 23, 345404.	0.7	3
93	ABSORPTION SPECTRA AND LEVEL SPACING STATISTICS IN A TERNARY ALLOY WITH AN ORNSTEIN-UHLENBECK DISORDER DISTRIBUTION. <i>International Journal of Modern Physics C</i> , 2014, 25, 1350091.	0.8	3
94	Sub-diffusive electronic transport in a DNA single-strand chain with electron-phonon coupling. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 035104.	0.7	3
95	Optical absorption and delocalization in a quaternary tight-binding chain with correlated disorder. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2017, 486, 895-900.	1.2	3
96	Transmission of quantum states through disordered channels with dimerized defects. <i>Quantum Information Processing</i> , 2019, 18, 1.	1.0	3
97	The self-trapping transition of one-magnon excitations coupled to acoustic phonons. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 506, 166798.	1.0	3
98	Magnon-polaron formation in XXZ quantum Heisenberg chains. <i>Physical Review B</i> , 2021, 103, .	1.1	3
99	Extended acoustic waves in a one-dimensional aperiodic system. <i>European Physical Journal B</i> , 2011, 79, 253-256.	0.6	2
100	Absorption spectra and localization aspects of a one-dimensional model with stretched exponential correlated disorder. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2014, 413, 31-41.	1.2	2
101	Wave packet dynamics under effect of a pulsed electric field. <i>Solid State Communications</i> , 2016, 236, 12-16.	0.9	2
102	Coherent magnon dynamics in ferromagnetic models with nonuniform magnetic field and correlated disorder. <i>Journal of Magnetism and Magnetic Materials</i> , 2016, 410, 165-170.	1.0	2
103	Influence of lattice vibrations on the field driven electronic transport in chains with correlated disorder. <i>Solid State Communications</i> , 2016, 248, 123-128.	0.9	2
104	Sensitivity to initial conditions of the self-trapping transition in C60 buckyballs with relaxing nonlinearity. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2016, 30, 101-107.	1.7	2
105	One-electron propagation in Fermi, Pasta, Ulam disordered chains with Gaussian acoustic pulse pumping. <i>International Journal of Modern Physics C</i> , 2017, 28, 1750100.	0.8	2
106	Spin-wave dynamics in nonlinear chains with spin-lattice interactions. <i>Physical Review E</i> , 2018, 98, .	0.8	2
107	Stability of uniform electronic wavepackets in chains and fullerenes. <i>International Journal of Modern Physics C</i> , 2015, 26, 1550133.	0.8	1
108	Wave Packet Dynamics in Nonlinear Disordered Chains under the Effect of Acoustic Waves. <i>Physica Status Solidi (B): Basic Research</i> , 2018, 255, 1800242.	0.7	1

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109	Localization properties of a discrete-time 1D quantum walk with generalized exponential correlated disorder. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2021, 394, 127196.	0.9	1
110	Evolution of SARS-CoV-2 in the state of Alagoas-Brazil via an adaptive SIR model. <i>International Journal of Modern Physics C</i> , 2021, 32, 2150040.	0.8	1
111	Energy Propagation in Classical Harmonic Lattices with Diluted Disorder. <i>Brazilian Journal of Physics</i> , 2017, 47, 583-588.	0.7	0
112	Wavepacket delocalization, self-trapping and fragmentation in discrete chains with relaxing nonlinearity. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2017, 44, 159-166.	1.7	0
113	Propagation of vibrational modes in classical harmonic lattice with correlated disorder. <i>Anais Da Academia Brasileira De Ciencias</i> , 2019, 91, e20180114.	0.3	0
114	Delocalization and energy dynamics in a one-dimensional disordered nonlinear lattice. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2020, 560, 125126.	1.2	0
115	Wave Packet Dynamics in Chains with Disorder – Type Ornstein – Uhlenbeck and Static Electric Field. <i>Physica Status Solidi (B): Basic Research</i> , 2020, 257, 2000096.	0.7	0
116	Electronic Dynamics in 2D Aperiodic Systems under Effect of Electric Field. <i>Physica Status Solidi (B): Basic Research</i> , 2020, 257, 1900782.	0.7	0