

Francisco A B F De Moura

List of Publications by Year in descending order

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116
papers

2,232
citations

304743

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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.	7.8	408
2	Bloch-Like Oscillations in a One-Dimensional Lattice with Long-Range Correlated Disorder. Physical Review Letters, 2003, 91, 197402.	7.8	92
3	DNA-based nanobiostructured devices: The role of quasiperiodicity and correlation effects. Physics Reports, 2014, 535, 139-209.	25.6	88
4	Correlation-induced metal-insulator transition in the one-dimensional Anderson model. Physica A: Statistical Mechanics and Its Applications, 1999, 266, 465-470.	2.6	84
5	Convergence to the critical attractor of dissipative maps: Log-periodic oscillations, fractality, and nonextensivity. Physical Review E, 2000, 62, 6361-6365.	2.1	76
6	Nucleotide correlations and electronic transport of DNA sequences. Physical Review E, 2005, 71, 021910.	2.1	73
7	Magnetocaloric effect in kinetically frustrated diamond chains. Physical Review B, 2009, 79, .	3.2	70
8	Delocalization in harmonic chains with long-range correlated random masses. Physical Review B, 2003, 68, .	3.2	68
9	Frequency doubling of Bloch oscillations for interacting electrons in a static electric field. Physical Review B, 2007, 76, .	3.2	61
10	Delocalization and spin-wave dynamics in ferromagnetic chains with long-range correlated random exchange. Physical Review B, 2002, 66, .	3.2	53
11	Localization properties of a one-dimensional tight-binding model with nonrandom long-range intersite interactions. Physical Review B, 2005, 71, .	3.2	48
12	Delocalization and ballistic dynamics in the two-dimensional Anderson model with long-range correlated disorder. Europhysics Letters, 2004, 66, 585-591.	2.0	47
13	Magnetization plateau in diamond chains with delocalized interstitial spins. Physical Review B, 2008, 77, .	3.2	45
14	de Moura and Lyra Reply.. Physical Review Letters, 2000, 84, 199-199.	7.8	40
15	Free-electron gas in the Apollonian network: Multifractal energy spectrum and its thermodynamic fingerprints. Physical Review E, 2009, 79, 016104.	2.1	37
16	Delocalization and wave-packet dynamics in one-dimensional diluted Anderson models. European Physical Journal B, 2003, 36, 81-86.	1.5	32
17	Wave-Packet Dynamics in Chains with Delayed Electronic Nonlinear Response. Physical Review Letters, 2009, 103, 096401.	7.8	32
18	Critical behavior of the two-dimensional Anderson model with long-range correlated disorder. Journal of Physics Condensed Matter, 2007, 19, 476213.	1.8	29

19	Disorder-assisted distribution of entanglement in $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML">\langle \text{mml:mrow}>\langle \text{mml:mi}>X</\text{mml:mi}>\langle \text{mml:mi}>Y</\text{mml:mi}></\text{mml:mrow}></\text{mml:math}>$ spin chains. Physical Review A, 2017, 96, .		
20	Vibrational modes in harmonic chains with diluted disorder. Physica A: Statistical Mechanics and Its Applications, 2005, 357, 165-172.	2.6	26
21	Bose-Einstein condensation in the Apollonian complex network. Physical Review E, 2010, 81, 030104.	2.1	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.	2.7	23
23	Extended modes and energy dynamics in two-dimensional lattices with correlated disorder. European Physical Journal B, 2008, 66, 165-169.	1.5	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.	2.1	20
25	Bloch oscillations in an aperiodic one-dimensional potential. Physical Review B, 2005, 71, .	3.2	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.	2.6	19
27	Vibrational modes in aperiodic one-dimensional harmonic chains. Physical Review B, 2006, 73, .	3.2	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.	2.1	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.	2.1	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, .	3.2	18
31	Scaling laws for the transmission of random binary dielectric multilayered structures. Physical Review B, 2007, 76, .	3.2	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, .	3.2	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.	1.5	16
34	Absence of localization on the 2d model with long-range correlated off-diagonal disorder. European Physical Journal B, 2010, 78, 335-339.	1.5	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.	2.1	16

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37	Stochastic description of the dynamics of a random-exchange Heisenberg chain. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 339, 33-38.	2.1	15
38	Coherent electron dynamics in a two-dimensional random system with mobility edges. Journal of Physics Condensed Matter, 2007, 19, 056204.	1.8	15
39	Bose-Einstein condensation in diamond hierarchical lattices. Physical Review E, 2014, 89, 052133.	2.1	15
40	Electronic transport in poly(CG) and poly(CT) DNA segments with diluted base pairing. Journal of Physics Condensed Matter, 2008, 20, 075109.	1.8	14
41	Effects of nonlinearity on wave-packet dynamics in square and honeycomb lattices. Physical Review B, 2010, 82, .	3.2	14
42	DYNAMICS OF ONE-ELECTRON IN A ONE-DIMENSIONAL SYSTEMS WITH AN APERIODIC HOPPING DISTRIBUTION. International Journal of Modern Physics C, 2011, 22, 63-69.	1.7	14
43	Bias driven coherent carrier dynamics in a two-dimensional aperiodic potential. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 6694-6700.	2.1	13
44	Finite-size scaling and disorder effect on the transmissivity of multilayered structures with metamaterials. Optics Express, 2008, 16, 6860.	3.4	13
45	Suppressed transmission in aperiodically modulated multilayered dielectric structures. Photonics and Nanostructures - Fundamentals and Applications, 2009, 7, 101-107.	2.0	13
46	Electron self-trapping and self-focusing in periodic chains with a finite nonlinear response time. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 4152-4155.	2.1	13
47	Self-trapping of interacting electrons in crystalline nonlinear chains. European Physical Journal B, 2012, 85, 1.	1.5	13
48	Emergent nonlinear phenomena in discrete-time quantum walks. Physical Review A, 2020, 101, .	2.5	12
49	Critical wave-packet dynamics in the power-law bond disordered Anderson model. Physical Review B, 2005, 71, .	3.2	11
50	Anderson localization in a disordered chain with a finite nonlinear response time. European Physical Journal B, 2011, 80, 321-324.	1.5	11
51	Electron wave packet dynamics in twisted nonlinear ladders with correlated disorder. Physica A: Statistical Mechanics and Its Applications, 2011, 390, 535-540.	2.6	11
52	Localization-delocalization transition in discrete-time quantum walks with long-range correlated disorder. Physical Review E, 2019, 99, 022117.	2.1	11
53	Extended spin waves in aperiodic ferromagnetic chains. European Physical Journal B, 2007, 58, 389-393.	1.5	10
54	Extended acoustic waves in diluted random systems. European Physical Journal B, 2011, 80, 59-63.	1.5	9

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55	Dynamics of one electron in a nonlinear disordered chain. Journal of Physics Condensed Matter, 2012, 24, 245401.	1.8	9
56	Energy transport in a one-dimensional harmonic ternary chain with Ornstein–Uhlenbeck disorder. Journal of Physics Condensed Matter, 2012, 24, 495401.	1.8	9
57	Critical behavior of the ideal-gas Bose-Einstein condensation in the Apollonian network. Physical Review E, 2013, 88, 022139.	2.1	9
58	Electron–soliton dynamics in chains with cubic nonlinearity. Journal of Physics Condensed Matter, 2014, 26, 415401.	1.8	9
59	Electronic transport in methylated fragments of DNA. Applied Physics Letters, 2015, 107, 203701.	3.3	9
60	Localization properties and high-fidelity state transfer in hopping models with correlated disorder. Annals of Physics, 2018, 398, 180-189.	2.8	9
61	Suppression of Bose-Einstein condensation in one-dimensional scale-free random potentials. Physical Review B, 2010, 82, .	3.2	8
62	Vibrational modes in a two-dimensional aperiodic harmonic lattice. Journal of Physics Condensed Matter, 2010, 22, 435401.	1.8	8
63	Localization on a two-channel model with cross-correlated disorder. Journal of Physics Condensed Matter, 2011, 23, 175304.	1.8	8
64	Numerical evidence of electron–soliton dynamics in Fermi–Pasta–Ulam disordered chains. Physica D: Nonlinear Phenomena, 2013, 253, 66-72.	2.8	8
65	Electronic transport in disordered chains mediated by interactions with acoustic waves. Solid State Communications, 2016, 229, 22-27.	1.9	8
66	Robust entanglement transfer through a disordered qubit ladder. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 125847.	2.1	8
67	Resonant states and wavepacket super-diffusion in intra-chain correlated ladders with diluted disorder. Journal of Physics Condensed Matter, 2011, 23, 135303.	1.8	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.	3.3	7
69	Rogue waves in discrete-time quantum walks. Physical Review A, 2022, 106, .	2.5	7
70	Diffusive, super-diffusive and ballistic transport in the long-range correlated 1D Anderson model. Solid State Communications, 2006, 138, 585-589.	1.9	6
71	Electronic transport in disordered chains with saturable nonlinearity. Physica A: Statistical Mechanics and Its Applications, 2015, 435, 15-21.	2.6	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, .	2.5	6

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73	Charge transport properties of a twisted DNA molecule: A renormalization approach. Chemical Physics, 2016, 478, 48-54.	1.9	6
74	Nonlinear wave-packet dynamics resonantly driven by AC and DC fields. Communications in Nonlinear Science and Numerical Simulation, 2018, 64, 89-97.	3.3	6
75	Delocalized 2-magnons eigenstates in long-range correlated random Heisenberg chains. Journal of Magnetism and Magnetic Materials, 2009, 321, 2304-2310.	2.3	5
76	Kosterlitz-Thouless-like transition in two-dimensional lattices with long-range correlated hopping terms. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 3572-3575.	2.1	5
77	LOCALIZATION OF ACOUSTIC WAVES IN ONE-DIMENSIONAL MODELS WITH CHAOTIC ELASTICITY. International Journal of Modern Physics C, 2011, 22, 573-580.	1.7	5
78	Wavepacket dynamics of coupled particles in aperiodic chains: Weakening of Anderson localization and local field effects. Physica A: Statistical Mechanics and Its Applications, 2014, 395, 22-30.	2.6	5
79	Enhanced localization, energy anomalous diffusion and resonant mode in harmonic chains with correlated mass-spring disorder. Journal of Physics Condensed Matter, 2015, 27, 175401.	1.8	5
80	Methylation effect on the ohmic resistance of a poly-GC DNA-like chain. Physics Letters, Section A: General, Atomic and Solid State Physics, 2016, 380, 3559-3563.	2.1	5
81	Sub-diffusive spreading and anomalous localization in a 2D Anderson model with off-diagonal nonlinearity. Solid State Communications, 2018, 270, 6-11.	1.9	5
82	Quantum communication through chains with diluted disorder. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 1845-1849.	2.1	5
83	Entanglement generation between distant parties via disordered spin chains. Quantum Information Processing, 2019, 18, 1.	2.2	5
84	Rabi-like quantum communication in an aperiodic spin-1/2 chain. Journal of Magnetism and Magnetic Materials, 2020, 505, 166730.	2.3	5
85	Fractality of largest clusters and the percolation transition in power-law diluted chains. Physical Review E, 2005, 72, 016116.	2.1	4
86	Absence of localized acoustic waves in a scale-free correlated random system. Journal of Physics Condensed Matter, 2011, 23, 065101.	1.8	4
87	ENERGY DYNAMICS IN A ONE-DIMENSIONAL APERIODIC ANHARMONIC LATTICE. International Journal of Modern Physics C, 2012, 23, 1240009.	1.7	4
88	Resonant localized states and quantum percolation on random chains with power-law-diluted long-range couplings. Journal of Physics Condensed Matter, 2012, 24, 205401.	1.8	4
89	Dynamics of interacting electrons under effect of a Morse potential. Physical Review E, 2017, 95, 052217.	2.1	4
90	Delocalized Vibrational Modes in Disordered Harmonic Chains with Correlated Spring Constants. Acta Physica Polonica B, 2015, 46, 1247.	0.8	4

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91	Stationary and dynamical aspects of two-magnon states in disordered ferromagnetic chains. Physical Review B, 2005, 72, .	3.2	3
92	Extended acoustic modes in random systems with n-mer short range correlations. Journal of Physics Condensed Matter, 2011, 23, 345404.	1.8	3
93	ABSORPTION SPECTRA AND LEVEL SPACING STATISTICS IN A TERNARY ALLOY WITH AN ORNSTEIN-UHLENBECK DISORDER DISTRIBUTION. International Journal of Modern Physics C, 2014, 25, 1350091.	1.7	3
94	Sub-diffusive electronic transport in a DNA single-strand chain with electron-phonon coupling. Journal of Physics Condensed Matter, 2015, 27, 035104.	1.8	3
95	Optical absorption and delocalization in a quaternary tight-binding chain with correlated disorder. Physica A: Statistical Mechanics and Its Applications, 2017, 486, 895-900.	2.6	3
96	Transmission of quantum states through disordered channels with dimerized defects. Quantum Information Processing, 2019, 18, 1.	2.2	3
97	The self-trapping transition of one-magnon excitations coupled to acoustic phonons. Journal of Magnetism and Magnetic Materials, 2020, 506, 166798.	2.3	3
98	Magnon-polaron formation in XXZ quantum Heisenberg chains. Physical Review B, 2021, 103, .	3.2	3
99	Extended acoustic waves in a one-dimensional aperiodic system. European Physical Journal B, 2011, 79, 253-256.	1.5	2
100	Absorption spectra and localization aspects of a one-dimensional model with stretched exponential correlated disorder. Physica A: Statistical Mechanics and Its Applications, 2014, 413, 31-41.	2.6	2
101	Wave packet dynamics under effect of a pulsed electric field. Solid State Communications, 2016, 236, 12-16.	1.9	2
102	Coherent magnon dynamics in ferromagnetic models with nonuniform magnetic field and correlated disorder. Journal of Magnetism and Magnetic Materials, 2016, 410, 165-170.	2.3	2
103	Influence of lattice vibrations on the field driven electronic transport in chains with correlated disorder. Solid State Communications, 2016, 248, 123-128.	1.9	2
104	Sensitivity to initial conditions of the self-trapping transition in C60 buckyballs with relaxing nonlinearity. Communications in Nonlinear Science and Numerical Simulation, 2016, 30, 101-107.	3.3	2
105	One-electron propagation in Fermi, Pasta, Ulam disordered chains with Gaussian acoustic pulse pumping. International Journal of Modern Physics C, 2017, 28, 1750100.	1.7	2
106	Spin-wave dynamics in nonlinear chains with spin-lattice interactions. Physical Review E, 2018, 98, .	2.1	2
107	Stability of uniform electronic wavepackets in chains and fullerenes. International Journal of Modern Physics C, 2015, 26, 1550133.	1.7	1
108	Wave Packet Dynamics in Nonlinear Disordered Chains under the Effect of Acoustic Waves. Physica Status Solidi (B): Basic Research, 2018, 255, 1800242.	1.5	1

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109	Localization properties of a discrete-time 1D quantum walk with generalized exponential correlated disorder. Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 394, 127196.	2.1	1
110	Evolution of SARS-CoV-2 in the state of Alagoas-Brazil via an adaptive SIR model. International Journal of Modern Physics C, 2021, 32, 2150040.	1.7	1
111	Energy Propagation in Classical Harmonic Lattices with Diluted Disorder. Brazilian Journal of Physics, 2017, 47, 583-588.	1.4	0
112	Wavepacket delocalization, self-trapping and fragmentation in discrete chains with relaxing nonlinearity. Communications in Nonlinear Science and Numerical Simulation, 2017, 44, 159-166.	3.3	0
113	Propagation of vibrational modes in classical harmonic lattice with correlated disorder. Anais Da Academia Brasileira De Ciencias, 2019, 91, e20180114.	0.8	0
114	Delocalization and energy dynamics in a one-dimensional disordered nonlinear lattice. Physica A: Statistical Mechanics and Its Applications, 2020, 560, 125126.	2.6	0
115	WavePacket Dynamics in Chains with DisorderType OrnsteinUhlenbeck and Static Electric Field. Physica Status Solidi (B): Basic Research, 2020, 257, 2000096.	1.5	0
116	Electronic Dynamics in 2D Aperiodic Systems under Effect of Electric Field. Physica Status Solidi (B): Basic Research, 2020, 257, 1900782.	1.5	0