

Juan F R Archilla

List of Publications by Year in descending order

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Version: 2024-02-01

67
papers

1,040
citations

361413

20
h-index

454955

30
g-index

69
all docs

69
docs citations

69
times ranked

378
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Ballistic Charge Transport by Mobile Nonlinear Excitations. <i>Physica Status Solidi - Rapid Research Letters</i> , 2022, 16, 2100420. | 2.4 | 4 |
| 2 | Localized Waves in Silicates. What Do We Know from Experiments?. <i>Springer Proceedings in Complexity</i> , 2021, , 721-734. | 0.3 | 3 |
| 3 | Pterobreathers in a model for a layered crystal with realistic potentials: Exact moving breathers in a moving frame. <i>Physical Review E</i> , 2019, 100, 022206. | 2.1 | 12 |
| 4 | Hyperconductivity in fluorphlogopite at 300 K and 1.1 T. <i>Europhysics Letters</i> , 2019, 127, 16001. | 2.0 | 11 |
| 5 | Kinks in a Lattice of Repelling Particles. <i>Understanding Complex Systems</i> , 2018, , 261-282. | 0.6 | 4 |
| 6 | Nonlinear waves in a chain of magnetically coupled pendula. <i>Proceedings of Meetings on Acoustics</i> , 2018, , . | 0.3 | 0 |
| 7 | Nonlinear waves in a model for silicate layers. <i>Chaos</i> , 2018, 28, 083119. | 2.5 | 16 |
| 8 | Nonlinear Systems, Vol. 2. <i>Understanding Complex Systems</i> , 2018, , . | 0.6 | 4 |
| 9 | Infinite charge mobility in muscovite at 300 K. <i>Europhysics Letters</i> , 2017, 120, 46001. | 2.0 | 17 |
| 10 | Energy localization and shape transformations in semiflexible polymer rings. <i>Physical Review E</i> , 2016, 93, 062227. | 2.1 | 2 |
| 11 | Quantum dynamics of wave packets in a non-stationary parabolic potential and the Kramers escape rate theory. <i>Journal of Micromechanics and Molecular Physics</i> , 2016, 01, 1650010. | 1.2 | 3 |
| 12 | On the charge of quodons. <i>Letters on Materials</i> , 2016, 6, 3-8. | 0.7 | 19 |
| 13 | Long range annealing of defects in germanium by low energy plasma ions. <i>Physica D: Nonlinear Phenomena</i> , 2015, 297, 56-61. | 2.8 | 33 |
| 14 | Ultradiscrete kinks with supersonic speed in a layered crystal with realistic potentials. <i>Physical Review E</i> , 2015, 91, 022912. | 2.1 | 42 |
| 15 | Quodons in Mica. <i>Springer Series in Materials Science</i> , 2015, , . | 0.6 | 13 |
| 16 | A Supersonic Crowdion in Mica. <i>Springer Series in Materials Science</i> , 2015, , 69-96. | 0.6 | 12 |
| 17 | Experimental Observation of Intrinsic Localized Modes in Germanium. <i>Springer Series in Materials Science</i> , 2015, , 343-362. | 0.6 | 5 |
| 18 | The Origin of Defects Induced in Ultra-Pure Germanium by Electron Beam Deposition. <i>Springer Series in Materials Science</i> , 2015, , 363-380. | 0.6 | 6 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Rate Theory of Acceleration of Defect Annealing Driven by Discrete Breathers. Springer Series in Materials Science, 2015, , 381-398. | 0.6 | 4 |
| 20 | D â€“ Goldschmidt Abstracts 2013. Mineralogical Magazine, 2013, 77, 934-1025. | 1.4 | 2 |
| 21 | Moving Excitations in Cation Lattices. Ukrainian Journal of Physics, 2013, 58, 646-656. | 0.2 | 13 |
| 22 | Stability of non-time-reversible phonobreathers. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 035102. | 2.1 | 12 |
| 23 | Reaction-rate theory with account of the crystal anharmonicity. Physical Review E, 2011, 83, 041124. | 2.1 | 42 |
| 24 | MULTIBREATHER AND VORTEX BREATHER STABILITY IN KLEINâ€™GORDON LATTICES: EQUIVALENCE BETWEEN TWO DIFFERENT APPROACHES. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2011, 21, 2161-2177. | 1.7 | 18 |
| 25 | Collisions of Discrete Breathers in Nonlinear SchrÃ¶dinger and Kleinâ€™Gordon Lattices. , 2011, , 159-164. | | 0 |
| 26 | Nonsymmetric moving breather collisions in the Peyrard-Bishop DNA model. Discrete and Continuous Dynamical Systems - Series S, 2011, 4, 995-1006. | 1.1 | 0 |
| 27 | Moving breather collisions in Klein-Gordon chains of oscillators. European Physical Journal B, 2009, 70, 543-555. | 1.5 | 2 |
| 28 | Discrete moving breather collisions in a Kleinâ€™Gordon chain of oscillators. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 1256-1264. | 2.1 | 10 |
| 29 | A neutron scattering study of strong-symmetric hydrogen bonds in potassium and cesium hydrogen bistrifluoroacetates: Determination of the crystal structures and of the single-well potentials for protons. Journal of Chemical Physics, 2008, 128, 204502. | 3.0 | 12 |
| 30 | Effect of Breather Existence on Reconstructive Transformations in Mica Muscovite. AIP Conference Proceedings, 2008, , . | 0.4 | 5 |
| 31 | Discrete Breathers for Understanding Reconstructive Mineral Processes at Low Temperatures. Journal of Physical Chemistry B, 2006, 110, 24112-24120. | 2.6 | 32 |
| 32 | Interaction of moving discrete breathers with vacancies. Physica D: Nonlinear Phenomena, 2006, 216, 115-120. | 2.8 | 24 |
| 33 | Breather trapping and breather transmission in a DNA model with an interface. European Physical Journal B, 2006, 51, 119-130. | 1.5 | 24 |
| 34 | Polaronic charge transport mechanism in DNA. , 2006, , 429-450. | | 0 |
| 35 | Localization properties of electronic states in a polaron model of poly(dG)-poly(dC) and poly(dA)-poly(dT) DNA polymers. European Physical Journal E, 2005, 17, 149-154. | 1.6 | 26 |
| 36 | Effect of the introduction of impurities on the stability properties of multibreathers at low coupling. Nonlinearity, 2005, 18, 769-790. | 1.4 | 11 |

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|----|--|-----|-----------|
| 37 | Modelling the thermal evolution of enzyme-created bubbles in DNA. Journal of the Royal Society Interface, 2005, 2, 89-95. | 3.4 | 5 |
| 38 | Bubble generation in a twisted and bent DNA-like model. Physical Review E, 2004, 70, 036609. | 2.1 | 15 |
| 39 | Bright and dark breathers in Fermi-Pasta-Ulam lattices. Physical Review B, 2004, 70, . | 3.2 | 33 |
| 40 | Effect of base-pair inhomogeneities on charge transport along the DNA molecule, mediated by twist and radial polarons. New Journal of Physics, 2004, 6, 13-13. | 2.9 | 27 |
| 41 | MOVING BREATHERS IN BENT DNA WITH REALISTIC PARAMETERS. Modern Physics Letters B, 2004, 18, 1319-1326. | 1.9 | 15 |
| 42 | Charge Transport in Poly(dG)â€™Poly(dC) and Poly(dA)â€™Poly(dT) DNA Polymers. Journal of Biological Physics, 2004, 30, 227-238. | 1.5 | 56 |
| 43 | Stretching and relaxation dynamics in double stranded DNA. Physica A: Statistical Mechanics and Its Applications, 2004, 331, 579-601. | 2.6 | 8 |
| 44 | Energy funneling in a bent chain of Morse oscillators with long-range coupling. Physical Review E, 2004, 69, 026603. | 2.1 | 20 |
| 45 | Multi-Site H-Bridge Breathers in a DNA-shaped Double Strand. Physica Scripta, 2004, 69, 150-160. | 2.5 | 3 |
| 46 | Title is missing!. Theoretical and Mathematical Physics(Russian Federation), 2003, 137, 1406-1411. | 0.9 | 5 |
| 47 | Nonlinear charge transport mechanism in periodic and disordered DNA. Physica D: Nonlinear Phenomena, 2003, 180, 256-272. | 2.8 | 42 |
| 48 | Demonstration of the stability or instability of multibreathers at low coupling. Physica D: Nonlinear Phenomena, 2003, 180, 235-255. | 2.8 | 50 |
| 49 | Influence of moving breathers on vacancies migration. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 315, 364-371. | 2.1 | 36 |
| 50 | CHARGE TRANSPORT IN A NONLINEAR, THREE-DIMENSIONAL DNA MODEL WITH DISORDER. , 2003, , . | | 2 |
| 51 | BREATHERS IN FPU SYSTEMS, NEAR AND FAR FROM THE PHONON BAND. , 2003, , . | | 1 |
| 52 | INTERACTION OF MOVING BREATHERS WITH AN IMPURITY. , 2003, , . | | 0 |
| 53 | Breathers in a system with helicity and dipole interaction. Physical Review E, 2002, 66, 017601. | 2.1 | 8 |
| 54 | Stationary and moving breathers in a simplified model of curved alpha-helix proteins. Journal of Physics A, 2002, 35, 8885-8902. | 1.6 | 18 |

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|----|---|-----|-----------|
| 55 | Dark breathers in Klein-Gordon lattices. Band analysis of their stability properties. <i>New Journal of Physics</i> , 2002, 4, 72-72. | 2.9 | 21 |
| 56 | Moving discrete breathers in a Klein-Gordon chain with an impurity. <i>Journal of Physics A</i> , 2002, 35, 10519-10530. | 1.6 | 46 |
| 57 | Moving breathers in a DNA model with competing short-and long-range dispersive interactions. <i>Physica D: Nonlinear Phenomena</i> , 2002, 163, 106-126. | 2.8 | 48 |
| 58 | Moving breathers in a bent DNA model. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2002, 299, 221-225. | 2.1 | 30 |
| 59 | Numerical study of breathers in a bent chain of oscillators with long-range interaction. <i>Journal of Physics A</i> , 2001, 34, 6363-6373. | 1.6 | 18 |
| 60 | Numerical study of two-dimensional disordered Klein-Gordon lattices with cubic soft anharmonicity. <i>Journal of Physics A</i> , 2001, 34, L221-L230. | 1.6 | 5 |
| 61 | Interplay of nonlinearity and geometry in a DNA-related, Klein-Gordon model with long-range dipole-dipole interaction. <i>Physical Review E</i> , 2001, 65, 016609. | 2.1 | 23 |
| 62 | Discrete breathers and Anderson modes: two faces of the same phenomenon?. <i>Physica D: Nonlinear Phenomena</i> , 1999, 134, 406-418. | 2.8 | 36 |
| 63 | Lie symmetries and multiple solutions in reaction-diffusion systems. <i>Journal of Physics A</i> , 1997, 30, 185-194. | 1.6 | 10 |
| 64 | Spiral waves solutions in reaction-diffusion equations with symmetries. Analysis through specific models. <i>Journal of Physics A</i> , 1997, 30, 4259-4271. | 1.6 | 2 |
| 65 | Intersection of crisis loci in a driven nonlinearly damped oscillator. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1995, 201, 186-190. | 2.1 | 2 |
| 66 | Diffusion in a class of exactly solvable non-harmonic potentials. Intrinsic effects induced by non-linearities. <i>Physica D: Nonlinear Phenomena</i> , 1990, 41, 79-88. | 2.8 | 2 |
| 67 | Diffusion equations for nonhomogeneous media. existence of similarity solutions. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1985, 111, 179-181. | 2.1 | 5 |