# JesÃºs Cuevas-Maraver

List of Publications by Year
in descending order



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|---|---|---|---|
| 114 papers | 2,210 citations | 201674 27 h-index | 289244 40 g-index |
| 118 all docs | 118 docs citations | 118 times ranked | 1118 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Solitons in quasi-one-dimensional Bose-Einstein condensates with competing dipolar and local interactions. Physical Review A, 2009, 79, . | 2.5 | 93 |
| 2 | Radiationless Traveling Waves in Saturable Nonlinear SchrÃ¶dinger Lattices. Physical Review Letters, 2006, 97, 124101. | 7.8 | 92 |
| 3 | Discrete Breathers in a Forced-Damped Array of Coupled Pendula: Modeling, Computation, and Experiment. Physical Review Letters, 2009, 102, 224101. | 7.8 | 77 |
| 4 | Beating darkâ€“dark solitons in Boseâ€“Einstein condensates. Journal of Physics B: Atomic, Molecular and Optical Physics, 2012, 45, 115301. | 1.5 | 65 |
| 5 | Breathers in oscillator chains with Hertzian interactions. Physica D: Nonlinear Phenomena, 2013, 251, 39-59. | 2.8 | 65 |
| 6 | Solitons for the cubicâ€“quintic nonlinear SchrÃ¶dinger equation with time- and space-modulated coefficients. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 165201. | 2.1 | 62 |
| 7 | Demonstration of the stability or instability of multibreathers at low coupling. Physica D: Nonlinear Phenomena, 2003, 180, 235-255. | 2.8 | 50 |
| 8 | Interactions of solitons with a Gaussian barrier: splitting and recombination in quasi-one-dimensional and three-dimensional settings. New Journal of Physics, 2013, 15, 063006. | 2.9 | 50 |
| 9 | Moving breathers in a DNA model with competing short-and long-range dispersive interactions. Physica D: Nonlinear Phenomena, 2002, 163, 106-126. | 2.8 | 48 |
| 10 | Travelling solitary waves in the discrete SchrÃ¶dinger equation with saturable nonlinearity: Existence, stability and dynamics. Physica D: Nonlinear Phenomena, 2008, 237, 551-567. | 2.8 | 48 |
| 11 | Moving discrete breathers in a KleinÂGordon chain with an impurity. Journal of Physics A, 2002, 35, 10519-10530. | 1.6 | 46 |
| 12 | Interactions and scattering of quantum vortices in a polariton fluid. Nature Communications, 2018, 9, 1467. | 12.8 | 46 |
| 13 | <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi mathvariant="script">PT</mml:mi></mml:math>-symmetric dimer of coupled nonlinear oscillators. Physical Review A, 2013, 88, . | 2.5 | 45 |
| 14 | Generation of Localized Modes in an Electrical Lattice Using Subharmonic Driving. Physical Review Letters, 2012, 108, 084101. | 7.8 | 42 |
| 15 | Nonlinear localized modes in two-dimensional electrical lattices. Physical Review E, 2013, 88, 022912. | 2.1 | 41 |
| 16 | Scattering of atomic darkâ€“bright solitons from narrow impurities. Journal of Physics B: Atomic, Molecular and Optical Physics, 2013, 46, 065302. | 1.5 | 38 |
| 17 | Coupled backward- and forward-propagating solitons in a composite right- and left-handed transmission line. Physical Review E, 2013, 88, 013203. | 2.1 | 37 |
| 18 | Influence of moving breathers on vacancies migration. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 315, 364-371. | 2.1 | 36 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Discrete breathers in a nonlinear electric line: Modeling, computation, and experiment. Physical Review E, 2011, 84, 026605. | 2.1 | 36 |
| 20 | Bright and dark breathers in Fermi-Pasta-Ulam lattices. Physical Review B, 2004, 70, . | 3.2 | 33 |
| 21 | BREATHERS IN INHOMOGENEOUS NONLINEAR LATTICES: AN ANALYSIS VIA CENTER MANIFOLD REDUCTION. Reviews in Mathematical Physics, 2009, 21, 1-59. | 1.7 | 33 |
| 22 | Discrete solitons in nonlinear SchrÃ¶dinger lattices with a power-law nonlinearity. Physica D: Nonlinear Phenomena, 2009, 238, 67-76. | 2.8 | 33 |
| 23 | Discrete Breathers for Understanding Reconstructive Mineral Processes at Low Temperatures. Journal of Physical Chemistry B, 2006, 110, 24112-24120. | 2.6 | 32 |
| 24 | Moving breathers in a bent DNA model. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 299, 221-225. | 2.1 | 30 |
| 25 | Discrete soliton collisions in a waveguide array with saturable nonlinearity. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 358, 15-20. | 2.1 | 30 |
| 26 | Quasidiscrete microwave solitons in a split-ring-resonator-based left-handed coplanar waveguide. Physical Review E, 2011, 83, 046608. | 2.1 | 29 |
| 27 | Motion of discrete solitons assisted by nonlinearity management. Physical Review E, 2005, 71, 066614. | 2.1 | 27 |
| 28 | Two-dimensional discrete solitons in rotating lattices. Physical Review E, 2007, 76, 046608. | 2.1 | 27 |
| 29 | Stability of Solitary Waves and Vortices in a 2D Nonlinear Dirac Model. Physical Review Letters, 2016, 116, 214101. | 7.8 | 27 |
| 30 | SO(2)-induced breathing patterns in multicomponent Bose-Einstein condensates. Physical Review A, 2016, 93, . | 2.5 | 26 |
| 31 | Interaction of moving discrete breathers with vacancies. Physica D: Nonlinear Phenomena, 2006, 216, 115-120. | 2.8 | 24 |
| 32 | Breather trapping and breather transmission in a DNA model with an interface. European Physical Journal B, 2006, 51, 119-130. | 1.5 | 24 |
| 33 | Multibreathers in Kleinâ€“Gordon chains with interactions beyond nearest neighbors. Physica D: Nonlinear Phenomena, 2013, 242, 16-29. | 2.8 | 24 |
| 34 | Floquet analysis of Kuznetsov-Ma breathers: A path towards spectral stability of rogue waves. Physical Review E, 2017, 96, 012202. | 2.1 | 24 |
| 35 | Solitons in one-dimensional nonlinear SchrÃ¶dinger lattices with a local inhomogeneity. Physical Review E, 2008, 77, 036614. | 2.1 | 23 |
| 36 | Reaction-diffusion spatial modeling of COVID-19: Greece and Andalusia as case examples. Physical Review E, 2021, 104, 024412. | 2.1 | 23 |

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|---|---|---|---|
| 37 | Nucleation of Breathers via Stochastic Resonance in Nonlinear Lattices. Physical Review Letters, 2009, 102, 205505. | 7.8 | 21 |
| 38 | Interplay between parity-time symmetry, supersymmetry, and nonlinearity: An analytically tractable case example. Physical Review E, 2015, 92, 042901. | 2.1 | 21 |
| 39 | Experimental and numerical observation of dark and bright breathers in the band gap of a diatomic electrical lattice. Physical Review E, 2019, 99, 032206. | 2.1 | 21 |
| 40 | A quantitative framework for exploring exit strategies from the COVID-19 lockdown. Chaos, Solitons and Fractals, 2020, 140, 110244. | 5.1 | 21 |
| 41 | Energy Criterion for the Spectral Stability of Discrete Breathers. Physical Review Letters, 2016, 117, 094101. | 7.8 | 20 |
| 42 | Dark-bright gap solitons in coupled-mode one-dimensional saturable waveguide arrays. Physical Review A, 2011, 83, . | 2.5 | 19 |
| 43 | Unifying perspective: Solitary traveling waves as discrete breathers in Hamiltonian lattices and energy criteria for their stability. Physical Review E, 2017, 96, 032214. | 2.1 | 19 |
| 44 | Stationary and moving breathers in a simplified model of curved alpha–helix proteins. Journal of Physics A, 2002, 35, 8885-8902. | 1.6 | 18 |
| 45 | 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 |
| 46 | Approximation of Solitons in the Discrete NLS Equation. Journal of Nonlinear Mathematical Physics, 2008, 15, 124. | 1.3 | 17 |
| 47 | Lockdown measures and their impact on single- and two-age-structured epidemic model for the COVID-19 outbreak in Mexico. Mathematical Biosciences, 2021, 336, 108590. | 1.9 | 17 |
| 48 | MOVING BREATHERS IN BENT DNA WITH REALISTIC PARAMETERS. Modern Physics Letters B, 2004, 18, 1319-1326. | 1.9 | 15 |
| 49 | Darkâ€“bright discrete solitons: A numerical study of existence, stability and dynamics. Physica D: Nonlinear Phenomena, 2011, 240, 767-778. | 2.8 | 15 |
| 50 | Breather statics and dynamics in Klein-Gordon chains with a bend. Physical Review E, 2004, 69, 056609. | 2.1 | 14 |
| 51 | Existence of bound states of a polaron with a breather in soft potentials. Physical Review B, 2006, 74, . | 3.2 | 14 |
| 52 | Nonlinear excitations, stability inversions, and dissipative dynamics in quasi-one-dimensional polariton condensates. Physical Review B, 2011, 83, . | 3.2 | 14 |
| 53 | From nodeless clouds and vortices to gray ring solitons and symmetry-broken states in two-dimensional polariton condensates. Journal of Physics Condensed Matter, 2014, 26, 155801. | 1.8 | 14 |
| 54 | Impulse-induced localized control of chaos in starlike networks. Physical Review E, 2016, 93, 062210. | 2.1 | 14 |

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|---|---|---|---|
| 55 | Stabilization of the Peregrine soliton and Kuznetsovâ€“Ma breathers by means of nonlinearity and dispersion management. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 968-972. | 2.1 | 14 |
| 56 | Continuous families of solitary waves in non-symmetric complex potentials: A Melnikov theory approach. Chaos, Solitons and Fractals, 2019, 118, 222-233. | 5.1 | 14 |
| 57 | Easing COVID-19 lockdown measures while protecting the older restricts the deaths to the level of the full lockdown. Scientific Reports, 2021, 11, 5839. | 3.3 | 14 |
| 58 | Escape dynamics in the discrete repulsive model. Physica D: Nonlinear Phenomena, 2013, 244, 1-24. | 2.8 | 13 |
| 59 | PT-symmetry management in oligomer systems. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 485101. | 2.1 | 13 |
| 60 | An energy-based stability criterion for solitary travelling waves in Hamiltonian lattices. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20170192. | 3.4 | 13 |
| 61 | Kuznetsovâ€“Ma breather-like solutions in the Salerno model. European Physical Journal Plus, 2020, 135, 1. | 2.6 | 13 |
| 62 | Breathers and kinks in a simulated crystal experiment. Discrete and Continuous Dynamical Systems - Series S, 2011, 4, 1107-1118. | 1.1 | 13 |
| 63 | Stability of non-time-reversible phonobreathers. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 035102. | 2.1 | 12 |
| 64 | Solitary Waves of a <inline-formula> <tex-math notation="LaTeX">$mathcal {P}$</tex-math> </inline-formula><inline-formula> <tex-math notation="LaTeX">$mathcal {T}$</tex-math> </inline-formula>-Symmetric Nonlinear Dirac Equation. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 67-75. | 2.9 | 12 |
| 65 | Effect of the introduction of impurities on the stability properties of multibreathers at low coupling. Nonlinearity, 2005, 18, 769-790. | 1.4 | 11 |
| 66 | Vortex solutions of the discrete Grossâ€“Pitaevskii equation starting from the anti-continuum limit. Physica D: Nonlinear Phenomena, 2009, 238, 1422-1431. | 2.8 | 11 |
| 67 | Dark lattice solitons in one-dimensional waveguide arrays with defocusing saturable nonlinearity and alternating couplings. European Physical Journal D, 2012, 66, 1. | 1.3 | 11 |
| 68 | Nonlinear Instabilities of Multiâ€Site Breathers in Kleinâ€“Gordon Lattices. Studies in Applied Mathematics, 2016, 137, 214-237. | 2.4 | 11 |
| 69 | Growth of nanocolumnar thin films on patterned substrates at oblique angles. Plasma Processes and Polymers, 2019, 16, 1800135. | 3.0 | 11 |
| 70 | 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 |
| 71 | Energy thresholds for the existence of breather solutions and travelling waves on lattices. Applicable Analysis, 2010, 89, 1351-1385. | 1.3 | 10 |
| 72 | Josephson tunnelling of dark solitons in a double-well potential. Journal of Physics B: Atomic, Molecular and Optical Physics, 2011, 44, 095003. | 1.5 | 10 |

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| 73 | Breathers for the Discrete Nonlinear SchrÃ¶dinger Equation with Nonlinear Hopping. Journal of Nonlinear Science, 2013, 23, 205-239. | 2.1 | 10 |
| 74 | Existence of dark solitons in a class of stationary nonlinear SchrÃ¶dinger equations with periodically modulated nonlinearity and periodic asymptotics. Journal of Mathematical Physics, 2011, 52, 032702. | 1.1 | 9 |
| 75 | Solitary waves in a discrete nonlinear Dirac equation. Journal of Physics A: Mathematical and Theoretical, 2015, 48, 055204. | 2.1 | 9 |
| 76 | Breather stripes and radial breathers of the two-dimensional sine-Gordon equation. Communications in Nonlinear Science and Numerical Simulation, 2021, 94, 105596. | 3.3 | 9 |
| 77 | Interlaced solitons and vortices in coupled DNLS lattices. Physica D: Nonlinear Phenomena, 2009, 238, 2216-2226. | 2.8 | 8 |
| 78 | $mathcal{P}mathcal{T}$-symmetric sine-Gordon breathers. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 455101. | 2.1 | 8 |
| 79 | Solitary waves in a two-dimensional nonlinear Dirac equation: from discrete to continuum. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 495207. | 2.1 | 7 |
| 80 | Discrete peakons. Physica D: Nonlinear Phenomena, 2005, 207, 137-160. | 2.8 | 6 |
| 81 | Dynamics of the Davydov-Scott monomer in a thermal bath: Comparison of the full quantum and semiclassical approaches. Physical Review E, 2007, 76, 011907. | 2.1 | 6 |
| 82 | Lower and upper estimates on the excitation threshold for breathers in discrete nonlinear SchrÃ¶dinger lattices. Journal of Mathematical Physics, 2009, 50, 112705. | 1.1 | 6 |
| 83 | Regular and chaotic transport of discrete solitons in asymmetric potentials. Physical Review E, 2010, 82, 016604. | 2.1 | 6 |
| 84 | Impulse-induced generation of stationary and moving discrete breathers in nonlinear oscillator networks. Physical Review E, 2016, 94, 062206. | 2.1 | 6 |
| 85 | Hydrodynamics and two-dimensional dark lump solitons for polariton superfluids. Physical Review E, 2018, 98, 022205. | 2.1 | 6 |
| 86 | Interaction of moving discrete breathers with interstitial defects. Discrete and Continuous Dynamical Systems - Series S, 2011, 4, 1057-1067. | 1.1 | 6 |
| 87 | Numerical study of two-dimensional disordered Klein-Gordon lattices with cubic soft anharmonicity. Journal of Physics A, 2001, 34, L221-L230. | 1.6 | 5 |
| 88 | Title is missing!. Theoretical and Mathematical Physics(Russian Federation), 2003, 137, 1406-1411. | 0.9 | 5 |
| 89 | Effect of Breather Existence on Reconstructive Transformations in Mica Muscovite. AIP Conference Proceedings, 2008, , . | 0.4 | 5 |
| 90 | A PT -Symmetric Dual-Core System with the Sine-Gordon Nonlinearity and Derivative Coupling. Symmetry, 2016, 8, 39. | 2.2 | 5 |

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| 91 | A Kortewegâ€“de Vries description of dark solitons in polariton superfluids. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 3805-3811. | 2.1 | 5 |
| 92 | Solitary Waves in the Nonlinear Dirac Equation. Understanding Complex Systems, 2018, , 89-143. | 0.6 | 5 |
| 93 | Induced localized nonlinear modes in an electrical lattice. Physica Scripta, 2019, 94, 065210. | 2.5 | 5 |
| 94 | Solitary waves in the Ablowitzâ€“Ladik equation with power-law nonlinearity. Journal of Physics A: Mathematical and Theoretical, 2019, 52, 065202. | 2.1 | 5 |
| 95 | Collective coordinates theory for discrete soliton ratchets in the sine-Gordon model. Physical Review E, 2014, 90, 042922. | 2.1 | 4 |
| 96 | ? ? $mathcal {P}mathcal {T}$ -Symmetric Dimer in a Generalized Model of Coupled Nonlinear Oscillators. International Journal of Theoretical Physics, 2015, 54, 3960-3985. | 1.2 | 4 |
| 97 | Stability of traveling waves in a driven Frenkelâ€“Kontorova model. Communications in Nonlinear Science and Numerical Simulation, 2020, 85, 105236. | 3.3 | 4 |
| 98 | Nonlinearity and Topology. Advances in Dynamics, Patterns, Cognition, 2020, , 25-54. | 0.3 | 4 |
| 99 | The closeness of the Ablowitz-Ladik lattice to the Discrete Nonlinear SchrÃ¶dinger equation. Journal of Differential Equations, 2022, 316, 346-363. | 2.2 | 4 |
| 100 | Propagation studies for the construction of atomic macro-coherence in dense media as a tool to investigate neutrino physics. European Physical Journal D, 2017, 71, 1. | 1.3 | 3 |
| 101 | Speed-of-light pulses in a massless nonlinear Dirac equation. Physical Review E, 2019, 100, 022210. | 2.1 | 3 |
| 102 | Vortex pairs in the discrete nonlinear SchrÃ¶dinger equation. Nonlinearity, 2020, 33, 2159-2180. | 1.4 | 3 |
| 103 | Floquet solitons in square lattices: Existence, stability, and dynamics. Physical Review E, 2022, 105, 044211. | 2.1 | 3 |
| 104 | Mixed dispersion nonlinear SchrÃ¶dinger equation in higher dimensions: theoretical analysis and numerical computations. Journal of Physics A: Mathematical and Theoretical, 0, , . | 2.1 | 3 |
| 105 | Moving breather collisions in Klein-Gordon chains of oscillators. European Physical Journal B, 2009, 70, 543-555. | 1.5 | 2 |
| 106 | Nonlinear Beam Propagation in a Class of Complex Non- P T $$mathcal {PT}$$ -Symmetric Potentials. Springer Tracts in Modern Physics, 2018, , 557-579. | 0.1 | 2 |
| 107 | Nonlinear edge modes in a honeycomb electrical lattice near the Dirac points. Physics Letters, Section A: General, Atomic and Solid State Physics, 2020, 384, 126664. | 2.1 | 2 |
| 108 | Discrete embedded solitary waves and breathers in one-dimensional nonlinear lattices. Physics Letters, Section A: General, Atomic and Solid State Physics, 2022, 425, 127880. | 2.1 | 2 |

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| 109 | The closeness of localized structures between the Ablowitzâ€“Ladik lattice and discrete nonlinear SchrÃ¶dinger equations: Generalized AL and DNLS systems. Journal of Mathematical Physics, 2022, 63, 042701. | 1.1 | 2 |
| 110 | Vortex Solutions of the Defocusing Discrete Nonlinear Schroì̂dinger Equation. , 2009, , . | | 0 |
| 111 | DNLS with Impurities. Springer Tracts in Modern Physics, 2009, , 353-368. | 0.1 | 0 |
| 112 | Discrete Nonlinear SchrÃ¶dinger Equations with Time-Dependent Coefficients (Management of Lattice) Tj ETQq0 0 0 rgBT /Overlock 10 | 0.1 | 0 |
| 113 | Collisions of Discrete Breathers in Nonlinear SchrÃ¶dinger and Kleinâ€“Gordon Lattices. , 2011, , 159-164. | | 0 |
| 114 | Moving discrete breathers in a <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e1527" altimg="si5.svg"><mml:mi>î²</mml:mi></mml:math>-FPU lattice revisited. Communications in Nonlinear Science and Numerical Simulation, 2022, 111, 106435. | 3.3 | 0 |