

# VÃ-ctor JosÃ© SÃ;nchez-MorcillÃ³

## List of Publications by Year in descending order

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97  
papers

1,888  
citations

257450

24  
h-index

276875

41  
g-index

100  
all docs

100  
docs citations

100  
times ranked

1122  
citing authors

#	ARTICLE	IF	CITATIONS
1	Spatial-localized structures in degenerate optical parametric oscillators. <i>Physical Review A</i> , 1998, 57, 1454-1457.	2.5	113
2	Transverse patterns in degenerate optical parametric oscillation and degenerate four-wave mixing. <i>Physical Review A</i> , 1996, 54, 1609-1624.	2.5	112
3	Localized structures in degenerate optical parametric oscillators. <i>Optics Communications</i> , 1997, 139, 306-312.	2.1	107
4	Theoretical prediction of the nondiffractive propagation of sonic waves through periodic acoustic media. <i>Physical Review B</i> , 2007, 75, .	3.2	89
5	Formation of high-order acoustic Bessel beams by spiral diffraction gratings. <i>Physical Review E</i> , 2016, 94, 053004.	2.1	88
6	Subdiffractive propagation of ultrasound in sonic crystals. <i>Physical Review B</i> , 2007, 76, .	3.2	70
7	Enhancement of sound in chirped sonic crystals. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	70
8	Dynamics of phase domains in the Swift-Hohenberg equation. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1998, 241, 28-34.	2.1	65
9	Spatial filtering of light by chirped photonic crystals. <i>Physical Review A</i> , 2009, 79, .	2.5	65
10	Generalized complex Swift-Hohenberg equation for optical parametric oscillators. <i>Physical Review A</i> , 1997, 56, 3237-3244.	2.5	54
11	Extraordinary absorption of sound in porous lamella-crystals. <i>Scientific Reports</i> , 2015, 4, 4674.	3.3	50
12	Second-harmonic generation for dispersive elastic waves in a discrete granular chain. <i>Physical Review E</i> , 2013, 88, 043203.	2.1	43
13	Ultradiscrete kinks with supersonic speed in a layered crystal with realistic potentials. <i>Physical Review E</i> , 2015, 91, 022912.	2.1	42
14	Self collimation of ultrasound in a three-dimensional sonic crystal. <i>Applied Physics Letters</i> , 2009, 94, .	3.3	38
15	Vectorial Kerr-cavity solitons. <i>Optics Letters</i> , 2000, 25, 957.	3.3	37
16	Acoustic Bessel-like beam formation by an axisymmetric grating. <i>Europhysics Letters</i> , 2014, 106, 24005.	2.0	36
17	Wave focusing using symmetry matching in axisymmetric acoustic gradient index lenses. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	33
18	Spatial filtering of sound beams by sonic crystals. <i>Applied Acoustics</i> , 2012, 73, 302-306.	3.3	31

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19	Enhancement of sound by soft reflections in exponentially chirped crystals. AIP Advances, 2014, 4, .	1.3	28
20	Elastic waves in phononic monolayer granular membranes. New Journal of Physics, 2011, 13, 073042.	2.9	27
21	Nonlinear dispersive waves in repulsive lattices. Physical Review E, 2017, 96, 012208.	2.1	27
22	Sound Absorption and Diffusion by 2D Arrays of Helmholtz Resonators. Applied Sciences (Switzerland), 2020, 10, 1690.	2.5	26
23	Turing patterns in nonlinear optics. Optics Communications, 2000, 177, 389-395.	2.1	24
24	Broadband quasi perfect absorption using chirped multi-layer porous materials. AIP Advances, 2016, 6, 121605.	1.3	24
25	Evidences of spatial (angular) filtering of sound beams by sonic crystals. Applied Acoustics, 2013, 74, 945-948.	3.3	22
26	Time-Domain Simulation of Ultrasound Propagation in a Tissue-Like Medium Based on the Resolution of the Nonlinear Acoustic Constitutive Relations. Acta Acustica United With Acustica, 2016, 102, 876-892.	0.8	22
27	Propagation of sound beams behind sonic crystals. Physical Review B, 2009, 80, .	3.2	21
28	Sound diffusers based on sonic crystals. Journal of the Acoustical Society of America, 2013, 134, 4412-4417.	1.1	19
29	Formation of collimated sound beams by three-dimensional sonic crystals. Journal of Applied Physics, 2012, 111, .	2.5	17
30	High-order Acoustic Bessel Beam Generation by Spiral Gratings. Physics Procedia, 2015, 70, 245-248.	1.2	17
31	Nonlinear propagation and control of acoustic waves in phononic superlattices. Comptes Rendus Physique, 2016, 17, 543-554.	0.9	17
32	Lasing without inversion via a self-pulsing instability. Quantum and Semiclassical Optics: Journal of the European Optical Society Part B, 1995, 7, 889-899.	0.9	16
33	Stability of localized structures in the Swift-Hohenberg equation. Physical Review E, 1999, 60, 6153-6156.	2.1	16
34	Improvement of the prediction of transmission loss of double partitions with cavity absorption by minimization techniques. Journal of Sound and Vibration, 2004, 273, 793-804.	3.9	15
35	Broadband reduction of the specular reflections by using sonic crystals: A proof of concept for noise mitigation in aerospace applications. Aerospace Science and Technology, 2018, 73, 300-308.	4.8	15
36	Nonlinear change of on-axis pressure and intensity maxima positions and its relation with the linear focal shift effect. Ultrasonics, 2008, 48, 678-686.	3.9	14

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37	Moving Excitations in Cation Lattices. Ukrainian Journal of Physics, 2013, 58, 646-656.	0.2	13
38	A Supersonic Crowdion in Mica. Springer Series in Materials Science, 2015, , 69-96.	0.6	12
39	Simultaneous self-collimation of fundamental and second-harmonic in sonic crystals. Applied Physics Letters, 2011, 99, .	3.3	11
40	Nonlinear focal shift beyond the geometrical focus in moderately focused acoustic beams. Journal of the Acoustical Society of America, 2013, 134, 1463-1472.	1.1	11
41	Swift - Hohenberg-type equation for nascent two-photon optical bistability in the weakly dispersive limit. Quantum and Semiclassical Optics: Journal of the European Optical Society Part B, 1996, 8, 919-929.	0.9	10
42	Cavity solitons in bidirectional lasers. Optics Letters, 2007, 32, 3221.	3.3	10
43	Enhanced transmission band in periodic media with loss modulation. Applied Physics Letters, 2014, 105, .	3.3	10
44	Traveling-wave“standing-wave competition in a generalized complex Swift-Hohenberg equation. Physical Review E, 1998, 57, R4911-R4914.	2.1	9
45	Strong on-axis focal shift and its nonlinear variation in low-Fresnel-number ultrasound beams. Journal of the Acoustical Society of America, 2006, 119, 3618-3624.	1.1	9
46	Unlocked evanescent waves in periodic structures. Optics Letters, 2013, 38, 1890.	3.3	8
47	The finite-element time-domain method for elastic band-structure calculations. Computer Physics Communications, 2019, 238, 77-87.	7.5	8
48	Sound Absorption Properties of Perforated Recycled Polyurethane Foams Reinforced with Woven Fabric. Polymers, 2020, 12, 401.	4.5	8
49	Ising-Bloch transition for spatially extended patterns. Physical Review E, 2005, 72, 016203.	2.1	7
50	Macroscopic acousto-mechanical analogy of a microbubble. Journal of the Acoustical Society of America, 2015, 138, 3600-3606.	1.1	7
51	Polarization instability in anisotropic-cavity degenerate four-wave mixing. Optics Communications, 2000, 173, 381-387.	2.1	6
52	Domain wall dynamics in an optical Kerr cavity. Physical Review E, 2005, 71, 066209.	2.1	6
53	Ultrasonic cavity solitons. Europhysics Letters, 2008, 82, 10002.	2.0	6
54	The Potential for Phononic Sound Diffusers (PSD). Building Acoustics, 2011, 18, 37-46.	1.9	6

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55	Angular Band Gaps in Sonic Crystals: Evanescent Waves and Spatial Complex Dispersion Relation. Journal of Vibration and Acoustics, Transactions of the ASME, 2013, 135, .	1.6	6
56	Acoustically penetrable sonic crystals based on fluid-like scatterers. Journal Physics D: Applied Physics, 2015, 48, 025501.	2.8	6
57	Asymmetric propagation using enhanced self-demodulation in a chirped phononic crystal. AIP Advances, 2016, 6, .	1.3	6
58	Role of pump diffraction on the stability of localized structures in degenerate optical parametric oscillators. Physical Review E, 2000, 61, 7076-7080.	2.1	5
59	The Isingâ€“Bloch transition in degenerate optical parametric oscillators. Journal of Optics B: Quantum and Semiclassical Optics, 2004, 6, S361-S368.	1.4	5
60	FIRST ACTIVITIES IN ACOUSTIC DETECTION OF PARTICLES IN UPV. International Journal of Modern Physics A, 2006, 21, 137-141.	1.5	5
61	Diffusion stabilizes cavity solitons in bidirectional lasers. Optics Express, 2009, 17, 4897.	3.4	5
62	Modulational Instability and localized modes for ultrasound contrast microbubbles surface oscillations. , 2011, , .		5
63	Nonlinear self-collimated sound beams in sonic crystals. Physical Review B, 2015, 92, .	3.2	5
64	Modeling Acoustically Driven Microbubbles by Macroscopic Discrete-Mechanical Analogues. Modelling in Science Education and Learning, 0, 6, 75.	0.2	5
65	Spontaneous pattern formation in an acoustical resonator. Journal of the Acoustical Society of America, 2004, 115, 111-119.	1.1	4
66	Kinks in a Lattice of Repelling Particles. Understanding Complex Systems, 2018, , 261-282.	0.6	4
67	Closed Busse balloon for rolls and skew-varicose instability in a Swift-Hohenberg model with nonlinear resonance. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 246, 293-298.	2.1	3
68	Bright cavity solitons in anisotropic vectorial Kerr cavities. Journal of Optics B: Quantum and Semiclassical Optics, 2001, 3, S118-S123.	1.4	3
69	Bistable and dynamic states of parametrically excited ultrasound in a fluid-filled interferometer. Journal of the Acoustical Society of America, 2009, 125, 3555-3560.	1.1	3
70	Self-pulsing dynamics of ultrasound in a magnetoacoustic resonator. Physical Review E, 2005, 72, 036611.	2.1	2
71	Pattern formation in parametric sound generation. Physical Review E, 2005, 72, 066202.	2.1	2
72	Excitability in a nonlinear magnetoacoustic resonator. Physical Review E, 2007, 75, 015602.	2.1	2

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73	Self-organization of ultrasound in viscous fluids. Europhysics Letters, 2010, 92, 10003.	2.0	2
74	Modulational instability of microbubbles surface modes. AIP Conference Proceedings, 2012, , .	0.4	2
75	Energy localization and shape transformations in semiflexible polymer rings. Physical Review E, 2016, 93, 062227.	2.1	2
76	Nonlinear effects in the radiation force generated by amplitude-modulated focused beams. AIP Conference Proceedings, 2012, , .	0.4	1
77	Vibration modes in a pendulums ring: Analogy with gas microbubbles surface modes. , 2013, , .		1
78	Lattice of nonlinear coupled oscillators: An acousto-mechanical analogy of gas microbubble. , 2014, , .		1
79	On the Nonlinear Effects in Focused Ultrasound Beams with Frequency Power Law Attenuation. Physics Procedia, 2015, 63, 47-53.	1.2	1
80	Nonlinear Ultrasound Simulations Including Complex Frequency Dependent Attenuation. Physics Procedia, 2015, 63, 108-113.	1.2	1
81	Localized nonlinear modes in microbubbles under the action of ultrasound. , 2016, , .		1
82	Propagation of Intense Acoustic Waves in Sonic Crystals. Physics Procedia, 2015, 70, 271-274.	1.2	1
83	Excitable behavior of ultrasound in a magnetoacoustic resonator. AIP Conference Proceedings, 2006, , .	0.4	0
84	The Strong Effects Of On-Axis Focal Shift And Its Nonlinear Variation In Ultrasound Beams Radiated By Low Fresnel Number Transducers. AIP Conference Proceedings, 2006, , .	0.4	0
85	Localization of Ultrasound in Acoustic Interferometers. AIP Conference Proceedings, 2006, , .	0.4	0
86	Bidirectional laser cavity solitons. , 2007, , .		0
87	Nonlinear Change Of On-Axis Pressure And Intensity Maxima Position In Focused Ultrasonic Beams. AIP Conference Proceedings, 2008, , .	0.4	0
88	Pattern Formation And Localized Structures In Acoustic Resonators Containing A Viscous Fluid. AIP Conference Proceedings, 2008, , .	0.4	0
89	Spatio-Temporal Dynamics in Parametric Sound Generation. AIP Conference Proceedings, 2008, , .	0.4	0
90	Diffusion stabilizes cavity solitons in bidirectional lasers. , 2009, , .		0

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91	Nonlinear focal shift in medium Fresnel-number focused acoustic beams. , 2010, , .		0
92	Focalization of evanescent beams. , 2012, , .		0
93	Focusing Properties of Axisymmetric Acoustic Metamaterials Made of Toroidal Scatterers. , 2012, , .		0
94	Time-domain simulation of constitutive relations for nonlinear acoustics including relaxation for frequency power law attenuation media modeling. AIP Conference Proceedings, 2015, , .	0.4	0
95	Nonlinear waves in a chain of magnetically coupled pendula. Proceedings of Meetings on Acoustics, 2018, , .	0.3	0
96	Modulated-nonlinearity in phononic crystals: From extremely linear to effective cubic nonlinear media. Proceedings of Meetings on Acoustics, 2018, , .	0.3	0
97	A GPU Approach to the Simulation of Spatio-temporal Dynamics in Ultrasonic Resonators. Lecture Notes in Computer Science, 2010, , 379-386.	1.3	0