

Vicent Romero-Garca

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

110
papers

2,203
citations

24
h-index

43
g-index

124
ext. papers

2,710
ext. citations

3
avg, IF

5.35
L-index

| # | Paper | IF | Citations |
|-----|--|------|-----------|
| 110 | Non-locality of the Willis coupling in fluid laminates. <i>Wave Motion</i> , 2022 , 102892 | 1.8 | |
| 109 | Perfect, broadband, and sub-wavelength absorption with asymmetric absorbers: Realization for duct acoustics with 3D printed porous resonators. <i>Journal of Sound and Vibration</i> , 2022 , 523, 116687 | 3.9 | 2 |
| 108 | Control of bending wave reflection at beam terminations by thermally tunable subwavelength resonators. <i>Journal of Sound and Vibration</i> , 2022 , 116918 | 3.9 | 1 |
| 107 | Underwater metamaterial absorber with impedance-matched composite.. <i>Science Advances</i> , 2022 , 8, eabm4206 | 14.3 | 5 |
| 106 | The Transfer Matrix Method in Acoustics. <i>Topics in Applied Physics</i> , 2021 , 103-164 | 0.5 | 0 |
| 105 | Sound Wave Propagation in Sonic Crystals. <i>Topics in Applied Physics</i> , 2021 , 65-102 | 0.5 | |
| 104 | Nonreciprocal and even Willis couplings in periodic thermoacoustic amplifiers. <i>Physical Review B</i> , 2021 , 104, | 3.3 | 2 |
| 103 | Asymmetric Metaporous Treatment: Optimization for Perfect Sound Absorption, 3D Printing, and Characterization with Air Flow 2021 , | | 1 |
| 102 | Wave transport in 1D stealthy hyperuniform phononic materials made of non-resonant and resonant scatterers. <i>APL Materials</i> , 2021 , 9, 101101 | 5.7 | 0 |
| 101 | Acoustic Metamaterial Absorbers. <i>Topics in Applied Physics</i> , 2021 , 167-204 | 0.5 | |
| 100 | Rapid additive manufacturing of optimized anisotropic metaporous surfaces for broadband absorption. <i>Journal of Applied Physics</i> , 2021 , 129, 115102 | 2.5 | 4 |
| 99 | High-amplitude sound propagation in acoustic transmission-line metamaterial. <i>Applied Physics Letters</i> , 2021 , 118, 104102 | 3.4 | 2 |
| 98 | Experimental evidence of a hiding zone in a density-near-zero acoustic metamaterial. <i>Journal of Applied Physics</i> , 2021 , 129, 145101 | 2.5 | 2 |
| 97 | Localized interface modes in one-dimensional hyperuniform acoustic materials. <i>Journal Physics D: Applied Physics</i> , 2021 , 54, 315303 | 3 | 2 |
| 96 | Spiral sound-diffusing metasurfaces based on holographic vortices. <i>Scientific Reports</i> , 2021 , 11, 10217 | 4.9 | 2 |
| 95 | Analytical modeling of one-dimensional resonant asymmetric and reciprocal acoustic structures as Willis materials. <i>New Journal of Physics</i> , 2021 , 23, 053020 | 2.9 | 7 |
| 94 | Metadiffusers for quasi-perfect and broadband sound diffusion. <i>Applied Physics Letters</i> , 2021 , 119, 044101 | 1.4 | 2 |

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| 93 | Scattering Evaluation of Equivalent Surface Impedances of Acoustic Metamaterials in Large FDTD Volumes Using RLC Circuit Modelling. <i>Applied Sciences (Switzerland)</i> , 2021 , 11, 8084 | 2.6 | |
| 92 | Natural sonic crystal absorber constituted of seagrass (<i>Posidonia Oceanica</i>) fibrous spheres. <i>Scientific Reports</i> , 2021 , 11, 711 | 4.9 | 5 |
| 91 | Sound Absorption and Diffusion by 2D Arrays of Helmholtz Resonators. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 1690 | 2.6 | 8 |
| 90 | Acoustic modeling of micro-lattices obtained by additive manufacturing. <i>Applied Acoustics</i> , 2020 , 164, 107244 | 3.1 | 18 |
| 89 | Interpretation of the Acoustic Black Hole effect based on the concept of critical coupling. <i>Journal of Sound and Vibration</i> , 2020 , 471, 115199 | 3.9 | 16 |
| 88 | Experimental evidence of absolute bandgaps in phononic crystal pipes. <i>Applied Physics Letters</i> , 2020 , 116, 201902 | 3.4 | 8 |
| 87 | Folded metaporous material for sub-wavelength and broadband perfect sound absorption. <i>Applied Physics Letters</i> , 2020 , 117, 251902 | 3.4 | 10 |
| 86 | Graded and Anisotropic Porous Materials for Broadband and Angular Maximal Acoustic Absorption. <i>Materials</i> , 2020 , 13, | 3.5 | 7 |
| 85 | Doping of a plate-type acoustic metamaterial. <i>Physical Review B</i> , 2020 , 102, | 3.3 | 4 |
| 84 | Perfect Absorption in Mirror-Symmetric Acoustic Metascreens. <i>Physical Review Applied</i> , 2020 , 14, | 4.3 | 14 |
| 83 | Design of acoustic metamaterials made of Helmholtz resonators for perfect absorption by using the complex frequency plane. <i>Comptes Rendus Physique</i> , 2020 , 21, 713-749 | 1.4 | 6 |
| 82 | Zero-phase propagation in realistic plate-type acoustic metamaterials. <i>Applied Physics Letters</i> , 2019 , 115, 134101 | 3.4 | 6 |
| 81 | Complex Dispersion Relation Recovery from 2D Periodic Resonant Systems of Finite Size. <i>Applied Sciences (Switzerland)</i> , 2019 , 9, 478 | 2.6 | 3 |
| 80 | General method to retrieve all effective acoustic properties of fully-anisotropic fluid materials in three dimensional space. <i>Journal of Applied Physics</i> , 2019 , 125, 025114 | 2.5 | 10 |
| 79 | Stealth Acoustic Materials. <i>Physical Review Applied</i> , 2019 , 11, | 4.3 | 11 |
| 78 | 3D-printed sound absorbing metafluid inspired by cereal straws. <i>Scientific Reports</i> , 2019 , 9, 8496 | 4.9 | 9 |
| 77 | Limits of flexural wave absorption by open lossy resonators: reflection and transmission problems. <i>New Journal of Physics</i> , 2019 , 21, 053003 | 2.9 | 14 |
| 76 | Fabrication and Characterization of 3D Printed Thin Plates for Acoustic Metamaterials Applications. <i>IEEE Sensors Journal</i> , 2019 , 19, 10365-10372 | 4 | 2 |

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| 75 | Aerogel-based metasurfaces for perfect acoustic energy absorption. <i>Applied Physics Letters</i> , 2019 , 115, 061901 | 3.4 | 15 |
| 74 | Slow Sound and Critical Coupling to Design Deep Subwavelength Acoustic Metamaterials for Perfect Absorption and Efficient Diffusion 2019 , 47-72 | | |
| 73 | Experimental validation of deep-subwavelength diffusion by acoustic metadiffusers. <i>Applied Physics Letters</i> , 2019 , 115, 081901 | 3.4 | 10 |
| 72 | The Plane Wave Expansion Method 2019 , 107-141 | | 1 |
| 71 | Introduction to Multiple Scattering Theory 2019 , 143-182 | | 3 |
| 70 | Acoustic Metamaterials for Industrial Applications 2019 , 183-205 | | 0 |
| 69 | Optimally graded porous material for broadband perfect absorption of sound. <i>Journal of Applied Physics</i> , 2019 , 126, 175101 | 2.5 | 24 |
| 68 | Acoustic wave propagation in effective graded fully anisotropic fluid layers. <i>Journal of the Acoustical Society of America</i> , 2019 , 146, 3400 | 2.2 | 9 |
| 67 | Three-dimensional multiresonant lossy sonic crystal for broadband acoustic attenuation: Application to train noise reduction. <i>Applied Acoustics</i> , 2019 , 146, 1-8 | 3.1 | 27 |
| 66 | The finite-element time-domain method for elastic band-structure calculations. <i>Computer Physics Communications</i> , 2019 , 238, 77-87 | 4.2 | 5 |
| 65 | Multimodal reduction of acoustic radiation of thin plates by using a single piezoelectric patch with a negative capacitance shunt. <i>Applied Acoustics</i> , 2019 , 145, 320-327 | 3.1 | 12 |
| 64 | Dark Solitons in Acoustic Transmission Line Metamaterials. <i>Applied Sciences (Switzerland)</i> , 2018 , 8, 1186 | 2.6 | 5 |
| 63 | Acoustic characterization of silica aerogel clamped plates for perfect absorption. <i>Journal of Non-Crystalline Solids</i> , 2018 , 499, 283-288 | 3.9 | 8 |
| 62 | Second-Harmonic Generation in Acoustic Waveguides Loaded with an Array of Side Holes. <i>Acta Acustica United With Acustica</i> , 2018 , 104, 235-242 | 1.5 | 2 |
| 61 | Perfect Absorption of Sound by Rigidly-Backed High-Porous Materials. <i>Acta Acustica United With Acustica</i> , 2018 , 104, 396-409 | 1.5 | 17 |
| 60 | Broadband reduction of the specular reflections by using sonic crystals: A proof of concept for noise mitigation in aerospace applications. <i>Aerospace Science and Technology</i> , 2018 , 73, 300-308 | 4.9 | 9 |
| 59 | Unidirectional zero sonic reflection in passive PT-symmetric Willis media. <i>Physical Review B</i> , 2018 , 98, | 3.3 | 39 |
| 58 | Sharp acoustic vortex focusing by Fresnel-spiral zone plates. <i>Applied Physics Letters</i> , 2018 , 112, 204101 | 3.4 | 46 |

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| 57 | Complex dispersion relation of surface acoustic waves at a lossy metasurface. <i>Applied Physics Letters</i> , 2017 , 110, 051902 | 3.4 | 25 |
| 56 | Rainbow-trapping absorbers: Broadband, perfect and asymmetric sound absorption by subwavelength panels for transmission problems. <i>Scientific Reports</i> , 2017 , 7, 13595 | 4.9 | 164 |
| 55 | Bright and gap solitons in membrane-type acoustic metamaterials. <i>Physical Review E</i> , 2017 , 96, 022214 | 2.4 | 10 |
| 54 | Metadiffusers: Deep-subwavelength sound diffusers. <i>Scientific Reports</i> , 2017 , 7, 5389 | 4.9 | 36 |
| 53 | Quasiperfect absorption by subwavelength acoustic panels in transmission using accumulation of resonances due to slow sound. <i>Physical Review B</i> , 2017 , 95, | 3.3 | 94 |
| 52 | Iridescent Perfect Absorption in Critically-Coupled Acoustic Metamaterials Using the Transfer Matrix Method. <i>Applied Sciences (Switzerland)</i> , 2017 , 7, 618 | 2.6 | 12 |
| 51 | Formation of high-order acoustic Bessel beams by spiral diffraction gratings. <i>Physical Review E</i> , 2016 , 94, 053004 | 2.4 | 50 |
| 50 | Broadband Transmission Loss Using the Overlap of Resonances in 3D Sonic Crystals. <i>Crystals</i> , 2016 , 6, 51 | 2.3 | 11 |
| 49 | Second-Harmonic Generation in Membrane-Type Nonlinear Acoustic Metamaterials. <i>Crystals</i> , 2016 , 6, 86 | 2.3 | 7 |
| 48 | Broadband quasi perfect absorption using chirped multi-layer porous materials. <i>AIP Advances</i> , 2016 , 6, 121605 | 1.5 | 20 |
| 47 | Use of complex frequency plane to design broadband and sub-wavelength absorbers. <i>Journal of the Acoustical Society of America</i> , 2016 , 139, 3395 | 2.2 | 94 |
| 46 | Perfect and broadband acoustic absorption by critically coupled sub-wavelength resonators. <i>Scientific Reports</i> , 2016 , 6, 19519 | 4.9 | 163 |
| 45 | Ultra-thin metamaterial for perfect and quasi-omnidirectional sound absorption. <i>Applied Physics Letters</i> , 2016 , 109, 121902 | 3.4 | 203 |
| 44 | Asymmetric propagation using enhanced self-demodulation in a chirped phononic crystal. <i>AIP Advances</i> , 2016 , 6, 121601 | 1.5 | 5 |
| 43 | Acoustically penetrable sonic crystals based on fluid-like scatterers. <i>Journal Physics D: Applied Physics</i> , 2015 , 48, 025501 | 3 | 6 |
| 42 | High-order Acoustic Bessel Beam Generation by Spiral Gratings. <i>Physics Procedia</i> , 2015 , 70, 245-248 | | 9 |
| 41 | Control of acoustic absorption in one-dimensional scattering by resonant scatterers. <i>Applied Physics Letters</i> , 2015 , 107, 244102 | 3.4 | 113 |
| 40 | Nonlinear focusing of ultrasonic waves by an axisymmetric diffraction grating embedded in water. <i>Applied Physics Letters</i> , 2015 , 107, 204103 | 3.4 | 8 |

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| 39 | PERIODIC SYSTEMS AS ROAD TRAFFIC NOISE REDUCING DEVICES: PROTOTYPE AND STANDARDIZATION. <i>Environmental Engineering and Management Journal</i> , 2015 , 14, 2759-2769 | 0.6 | 2 |
| 38 | Extraordinary absorption of sound in porous lamella-crystals. <i>Scientific Reports</i> , 2014 , 4, 4674 | 4.9 | 40 |
| 37 | Enhanced transmission band in periodic media with loss modulation. <i>Applied Physics Letters</i> , 2014 , 105, 204104 | 3.4 | 6 |
| 36 | Acoustic Bessel-like beam formation by an axisymmetric grating. <i>Europhysics Letters</i> , 2014 , 106, 24005 | 1.6 | 27 |
| 35 | Enhancement of sound by soft reflections in exponentially chirped crystals. <i>AIP Advances</i> , 2014 , 4, 1244025 | 2.5 | 19 |
| 34 | Numerical resolution of the hyperbolic heat equation using smoothed mathematical functions instead of Heaviside and Dirac delta distributions. <i>International Communications in Heat and Mass Transfer</i> , 2013 , 46, 7-12 | 5.8 | 11 |
| 33 | Angular Band Gaps in Sonic Crystals: Evanescent Waves and Spatial Complex Dispersion Relation. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2013 , 135, | 1.6 | 5 |
| 32 | Multi-resonant scatterers in sonic crystals: Locally multi-resonant acoustic metamaterial. <i>Journal of Sound and Vibration</i> , 2013 , 332, 184-198 | 3.9 | 62 |
| 31 | Enhancement of sound in chirped sonic crystals. <i>Applied Physics Letters</i> , 2013 , 102, 091906 | 3.4 | 53 |
| 30 | Unlocked evanescent waves in periodic structures. <i>Optics Letters</i> , 2013 , 38, 1890-2 | 3 | 6 |
| 29 | Tunable acoustic waveguides in periodic arrays made of rigid square-rod scatterers: theory and experimental realization. <i>Journal Physics D: Applied Physics</i> , 2013 , 46, 305108 | 3 | 27 |
| 28 | Second-harmonic generation for dispersive elastic waves in a discrete granular chain. <i>Physical Review E</i> , 2013 , 88, 043203 | 2.4 | 36 |
| 27 | Wave focusing using symmetry matching in axisymmetric acoustic gradient index lenses. <i>Applied Physics Letters</i> , 2013 , 103, 264106 | 3.4 | 30 |
| 26 | Theoretical and experimental evidence of level repulsion states and evanescent modes in sonic crystal stubbed waveguides. <i>New Journal of Physics</i> , 2012 , 14, 023049 | 2.9 | 17 |
| 25 | Design, Manufacture and Characterization of an Acoustic Barrier Made of Multi-Phenomena Cylindrical Scatterers Arranged in a Fractal-Based Geometry. <i>Archives of Acoustics</i> , 2012 , 37, 455-462 | | 24 |
| 24 | Formation of collimated sound beams by three-dimensional sonic crystals. <i>Journal of Applied Physics</i> , 2012 , 111, 104910 | 2.5 | 13 |
| 23 | Molding the Acoustic Attenuation in Quasi-Ordered Structures: Experimental Realization. <i>Applied Physics Express</i> , 2012 , 5, 087301 | 2.4 | 6 |
| 22 | Evanescent waves and deaf bands in sonic crystals. <i>AIP Advances</i> , 2011 , 1, 041601 | 1.5 | 14 |

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| 21 | Level repulsion and evanescent waves in sonic crystals. <i>Physical Review B</i> , 2011 , 84, | 3.3 | 15 |
| 20 | Analytical model to predict the effect of a finite impedance surface on the propagation properties of 2D Sonic Crystals. <i>Journal Physics D: Applied Physics</i> , 2011 , 44, 265501 | 3 | 13 |
| 19 | Tunable wideband bandstop acoustic filter based on two-dimensional multiphysical phenomena periodic systems. <i>Journal of Applied Physics</i> , 2011 , 110, 014904 | 2.5 | 59 |
| 18 | Analysis of the wave propagation properties of a periodic array of rigid cylinders perpendicular to a finite impedance surface. <i>Europhysics Letters</i> , 2011 , 96, 44003 | 1.6 | 4 |
| 17 | Evidences of evanescent Bloch waves in phononic crystals. <i>Applied Physics Letters</i> , 2010 , 96, 124102 | 3.4 | 65 |
| 16 | Evanescent modes in sonic crystals: Complex dispersion relation and supercell approximation. <i>Journal of Applied Physics</i> , 2010 , 108, 044907 | 2.5 | 49 |
| 15 | Overlapping of acoustic bandgaps using fractal geometries. <i>Europhysics Letters</i> , 2010 , 92, 24007 | 1.6 | 14 |
| 14 | Propagating and evanescent properties of double-point defects in sonic crystals. <i>New Journal of Physics</i> , 2010 , 12, 083024 | 2.9 | 32 |
| 13 | Analytical validation of COMSOL Multiphysics for theoretical models of Radiofrequency ablation including the Hyperbolic Bioheat transfer equation. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2010 , 2010, 3214-7 | 0.9 | 3 |
| 12 | Hole distribution in phononic crystals: design and optimization. <i>Journal of the Acoustical Society of America</i> , 2009 , 125, 3774-83 | 2.2 | 28 |
| 11 | Interactive multimodal transcription of text images using a web-based demo system 2009 , | | 9 |
| 10 | Optimization of sonic crystal attenuation properties by ev-MOGA multiobjective evolutionary algorithm. <i>Structural and Multidisciplinary Optimization</i> , 2009 , 39, 203-215 | 3.6 | 23 |
| 9 | High optimization process for increasing the attenuation properties of acoustic metamaterials by means of the creation of defects. <i>Applied Physics Letters</i> , 2008 , 93, 223502 | 3.4 | 2 |
| 8 | Mathematical Techniques for the Design of Band Gap Materials 2007 , 1939 | | |
| 7 | Targeted band gap creation using mixed sonic crystal arrays including resonators and rigid scatterers. <i>Applied Physics Letters</i> , 2007 , 90, 244104 | 3.4 | 15 |
| 6 | Interferometric method of determining the refraction index of two-dimensional sonic crystals. <i>Physical Review B</i> , 2007 , 75, | 3.3 | 3 |
| 5 | Genetic Algorithm in the Optimization of the Acoustic Attenuation Systems 2007 , 614-621 | | |
| 4 | A phenomenological model for sonic crystals based on artificial neural networks. <i>Journal of the Acoustical Society of America</i> , 2006 , 120, 636-641 | 2.2 | 3 |

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| 3 | Band gap creation using quasiordered structures based on sonic crystals. <i>Applied Physics Letters</i> , 2006 , 88, 174104 | 3.4 | 17 |
| 2 | Optimal absorption of flexural energy in thin plates by critically coupling a locally resonant grating. <i>Waves in Random and Complex Media</i> ,1-23 | 1.9 | 2 |
| 1 | Stealth and equiluminous materials for scattering cancellation and wave diffusion. <i>Waves in Random and Complex Media</i> ,1-19 | 1.9 | 3 |