## **Georgios Theocharis**

List of Publications by Year in descending order

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64 papers 3,474 citations

28 h-index 59 g-index

64 all docs 64
docs citations

64 times ranked 1993 citing authors

#	Article	IF	CITATIONS
1	Bifurcation-based acoustic switching and rectification. Nature Materials, 2011, 10, 665-668.	27.5	496
2	Experimental Observation of Oscillating and Interacting Matter Wave Dark Solitons. Physical Review Letters, 2008, 101, 130401.	7.8	252
3	Feshbach Resonance Management for Bose-Einstein Condensates. Physical Review Letters, 2003, 90, 230401.	7.8	246
4	Perfect and broadband acoustic absorption by critically coupled sub-wavelength resonators. Scientific Reports, 2016, 6, 19519.	3.3	228
5	Discrete Breathers in One-Dimensional Diatomic Granular Crystals. Physical Review Letters, 2010, 104, 244302.	7.8	224
6	Ring Dark Solitons and Vortex Necklaces in Bose-Einstein Condensates. Physical Review Letters, 2003, 90, 120403.	7.8	173
7	Use of complex frequency plane to design broadband and sub-wavelength absorbers. Journal of the Acoustical Society of America, 2016, 139, 3395-3403.	1.1	154
8	Control of acoustic absorption in one-dimensional scattering by resonant scatterers. Applied Physics Letters, 2015, 107, .	3.3	147
9	Multiple atomic dark solitons in cigar-shaped Bose-Einstein condensates. Physical Review A, 2010, 81, .	2.5	112
10	Limits of slow sound propagation and transparency in lossy, locally resonant periodic structures. New Journal of Physics, 2014, 16, 093017.	2.9	87
11	Localized breathing modes in granular crystals with defects. Physical Review E, 2009, 80, 066601.	2.1	85
12	Tunable vibrational band gaps in one-dimensional diatomic granular crystals with three-particle unit cells. Journal of Applied Physics, $2011,109,$ .	2.5	82
13	Highly Nonlinear Wave Propagation in Elastic Woodpile Periodic Structures. Physical Review Letters, 2015, 114, 118002.	7.8	82
14	Non-Hermitian acoustic metamaterials: Role of exceptional points in sound absorption. Physical Review B, 2017, 95, .	3.2	80
15	Intrinsic energy localization through discrete gap breathers in one-dimensional diatomic granular crystals. Physical Review E, 2010, 82, 056604.	2.1	77
16	Nonlinear resonances and energy transfer in finite granular chains. Physical Review E, 2015, 91, 023208.	2.1	54
17	Observation of Edge Waves in a Two-Dimensional Su-Schrieffer-Heeger Acoustic Network. Physical Review Applied, 2019, 12, .	3.8	51
18	Tunable magneto-granular phononic crystals. Applied Physics Letters, 2016, 108, .	3.3	50

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19	Stability of topological edge states under strong nonlinear effects. Physical Review B, 2021, 103, .	3.2	37
20	Wave propagation in a strongly nonlinear locally resonant granular crystal. Physica D: Nonlinear Phenomena, 2018, 365, 27-41.	2.8	35
21	Nonlinear Periodic Phononic Structures and Granular Crystals. Springer Series in Solid-state Sciences, 2013, , 217-251.	0.3	34
22	Vortices in a Bose–Einstein condensate confined by an optical lattice. Journal of Physics B: Atomic, Molecular and Optical Physics, 2003, 36, 3467-3476.	1.5	33
23	Self-induced topological transition in phononic crystals by nonlinearity management. Physical Review B, 2019, 100, .	3.2	33
24	Nonlinear Hysteretic Torsional Waves. Physical Review Letters, 2015, 115, 054301.	7.8	32
25	Defect modes in one-dimensional granular crystals. Physical Review E, 2012, 85, 037601.	2.1	31
26	Quasitopological rotational waves in mechanical granular graphene. Physical Review B, 2018, 97, .	3.2	31
27	Dark breathers in granular crystals. Physical Review E, 2013, 87, 042202.	2.1	30
28	Perfect Absorption in Mirror-Symmetric Acoustic Metascreens. Physical Review Applied, 2020, 14, .	3.8	29
29	Coherent perfect absorption induced by the nonlinearity of a Helmholtz resonator. Journal of the Acoustical Society of America, 2016, 140, EL94-EL100.	1.1	28
30	Hysteresis loops and multi-stability: From periodic orbits to chaotic dynamics (and back) in diatomic granular crystals. Europhysics Letters, 2013, 101, 44003.	2.0	27
31	Energy transport in one-dimensional disordered granular solids. Physical Review E, 2016, 93, 022903.	2.1	25
32	Acoustic Su-Schrieffer-Heeger lattice: Direct mapping of acoustic waveguides to the Su-Schrieffer-Heeger model. Physical Review B, 2021, 103, .	3.2	24
33	Dark soliton dynamics in spatially inhomogeneous media: Application to Bose–Einstein condensates. Mathematics and Computers in Simulation, 2005, 69, 537-552.	4.4	22
34	Robustness of topological corner modes against disorder with application to acoustic networks. Physical Review B, 2020, 102, .	3.2	22
35	Acoustic solitons in waveguides with Helmholtz resonators: Transmission line approach. Physical Review E, 2015, 91, 023204.	2.1	20
36	Acoustic graphene network loaded with Helmholtz resonators: a first-principle modeling, Dirac cones, edge and interface waves. New Journal of Physics, 2020, 22, 013029.	2.9	19

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37	Guidance of matter waves through Y-junctions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 317, 513-522.	2.1	18
38	Invariant currents in lossy acoustic waveguides with complete local symmetry. Physical Review B, 2015, 92, .	3.2	18
39	Transversal–rotational and zero group velocity modes in tunable magneto-granular phononic crystals. Extreme Mechanics Letters, 2017, 12, 65-70.	4.1	18
40	Fast, robust, and amplified transfer of topological edge modes on a time-varying mechanical chain. Physical Review B, 2020, 102, .	3.2	17
41	Dark solitons in cigar-shaped Bose-Einstein condensates in double-well potentials. Physical Review A, 2010, 81, .	2.5	16
42	Disorder-induced topological phase transition in a one-dimensional mechanical system. Physical Review Research, 2021, 3, .	3.6	16
43	Linear and Nonlinear Elastic Waves in Magnetogranular Chains. Physical Review Applied, 2020, 13, .	3.8	15
44	Design of acoustic metamaterials made of Helmholtz resonators for perfect absorption by using the complex frequency plane. Comptes Rendus Physique, 2020, 21, 713-749.	0.9	15
45	Generation of dark solitons in oscillating Bose–Einstein condensates. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 337, 441-448.	2.1	14
46	Discrete breathers at the interface between a diatomic and a monoatomic granular chain. Physical Review E, 2010, 82, 061303.	2.1	14
47	Bright and gap solitons in membrane-type acoustic metamaterials. Physical Review E, 2017, 96, 022214.	2.1	14
48	Zero-frequency and slow elastic modes in phononic monolayer granular membranes. Ultrasonics, 2016, 69, 201-214.	3.9	13
49	Subwavelength Interferometric Control of Absorption in Three-port Acoustic Network. Scientific Reports, 2018, 8, 12328.	3.3	11
50	Dark Solitons in Acoustic Transmission Line Metamaterials. Applied Sciences (Switzerland), 2018, 8, 1186.	2.5	11
51	Second-Harmonic Generation in Membrane-Type Nonlinear Acoustic Metamaterials. Crystals, 2016, 6, 86.	2.2	10
52	Topological two-dimensional Su–Schrieffer–Heeger analog acoustic networks: Total reflection at corners and corner induced modes. Journal of Applied Physics, 2021, 129, .	2.5	10
53	Granular graphene: Direct observation of edge states on zigzag and armchair boundaries. Physical Review B, 2019, 99, .	3.2	7
54	Dynamics of interacting dark soliton stripes. Physical Review A, 2019, 100, .	2.5	6

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55	Multi-functional resonant acoustic wave router. Journal Physics D: Applied Physics, 2020, 53, 235101.	2.8	6
56	High-amplitude sound propagation in acoustic transmission-line metamaterial. Applied Physics Letters, 2021, 118, .	3.3	6
57	Second-Harmonic Generation in Acoustic Waveguides Loaded with an Array of Side Holes. Acta Acustica United With Acustica, 2018, 104, 235-242.	0.8	5
58	Wave propagation in a strongly disordered one-dimensional phononic lattice supporting rotational waves. Physical Review B, 2020, 102, .	3.2	5
59	Tilted double Dirac cone and anisotropic quantum-spin-Hall topological insulator in mechanical granular graphene. New Journal of Physics, 2020, 22, 103012.	2.9	5
60	Wave-packet spreading in disordered soft architected structures. Chaos, 2022, 32, 053116.	2.5	4
61	Testing a bead-rod contact with a nonlinear resonance method. Journal of Sound and Vibration, 2019, 441, 84-95.	3.9	3
62	Nonlinear topological edge states: From dynamic delocalization to thermalization. Physical Review B, 2022, 105, .	3.2	3
63	Direct observation of edge modes in zigzag granular chains. Journal of Sound and Vibration, 2022, 526, 116761.	3.9	2
64	Subwavelength Su-Schrieffer-Heeger topological modes in acoustic waveguides. Journal of the Acoustical Society of America, 2022, 151, 3626-3632.	1.1	0