Ying Wu

List of Publications by Year
in descending order

158 papers	9,191 citations	46984 47 h-index	42364 92 g-index
164 all docs	164 docs citations	164 times ranked	3904 citing authors

#	Article	IF	Citations
1	Acoustic metasurfaces. Nature Reviews Materials, 2018, 3, 460-472.	23.3	539
2	Electromagnetically induced transparency inV-,Î›-, and cascade-type schemes beyond steady-state analysis. Physical Review A, 2005, 71, .	1.0	528
3	Highly efficient four-wave mixing in double-Î›system in ultraslow propagation regime. Physical Review A, 2004, 70, .	1.0	419
4	Large enhancement of four-wave mixing by suppression of photon absorption from electromagnetically induced transparency. Physical Review A, 2003, 67, .	1.0	396
5	Hybrid elastic solids. Nature Materials, 2011, 10, 620-624.	13.3	386
6	Elastic Metamaterials with Simultaneously Negative Effective Shear Modulus and Mass Density. Physical Review Letters, 2011, 107, 105506.	2.9	292
7	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi mathvariant="script">P</mml:mi><mml:mi mathvariant="script">T</mml:mi></mml:math>-Symmetry-Breaking Chaos in Optomechanics. Physical Review Letters, 2015, 114, 253601.	2.9	270
8	Squeezed Optomechanics with Phase-Matched Amplification and Dissipation. Physical Review Letters, 2015, 114, 093602.	2.9	268
9	First-principles study of Dirac and Dirac-like cones in phononic and photonic crystals. Physical Review B, 2012, 86, .	1.1	242
10	Higher-order sidebands in optomechanically induced transparency. Physical Review A, 2012, 86, .	1.0	233
11	Ultraslow bright and dark optical solitons in a cold three-state medium. Optics Letters, 2004, 29, 2064.	1.7	225
12	Controllable transmission and total reflection through an impedance-matched acoustic metasurface. New Journal of Physics, 2014, 16, 123007.	1.2	207
13	Effective medium theory for magnetodielectric composites: Beyond the long-wavelength limit. Physical Review B, 2006, 74, .	1.1	190
14	Tunable Topological Phononic Crystals. Physical Review Applied, 2016, 5, .	1.5	189
15	Effective medium theory for elastic metamaterials in two dimensions. Physical Review B, 2007, 76, .	1.1	173
16	Efficient hyper-Raman scattering in resonant coherent media. Optics Letters, 2003, 28, 631.	1.7	159
17	Preparation of multiparty entangled states using pairwise perfectly efficient single-probe photon four-wave mixing. Physical Review A, 2004, 69, .	1.0	151
18	High transmission acoustic focusing by impedance-matched acoustic meta-surfaces. Applied Physics Letters, 2016, 108, .	1.5	151

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19	Matched slow optical soliton pairs via biexciton coherence in quantum dots. Physical Review A, 2011, 84, .	1.0	135
20	Fundamentals and applications of optomechanically induced transparency. Applied Physics Reviews, 2018, 5, 031305.	5.5	134
21	Pseudo-time-reversal symmetry and topological edge states in two-dimensional acoustic crystals. Scientific Reports, 2016, 6, 32752.	1.6	116
22	Achieving multifrequency mode entanglement with ultraslow multiwave mixing. Optics Letters, 2004, 29, 1144.	1.7	107
23	Homogenization scheme for acoustic metamaterials. Physical Review B, 2014, 89, .	1.1	100
24	Acoustic cloaking by a near-zero-index phononic crystal. Applied Physics Letters, 2014, 104, .	1.5	99
25	Review of cavity optomechanics in the weak-coupling regime: from linearization to intrinsic nonlinear interactions. Science China: Physics, Mechanics and Astronomy, 2015, 58, 1-13.	2.0	97
26	Observation of a phononic higher-order Weyl semimetal. Nature Materials, 2021, 20, 794-799.	13.3	96
27	Double Dirac cones in phononic crystals. Applied Physics Letters, 2014, 105, .	1.5	94
28	Accidental degeneracy of double Dirac cones in a phononic crystal. Scientific Reports, 2014, 4, 4613.	1.6	93
29	Corner states in a second-order acoustic topological insulator as bound states in the continuum. Physical Review B, 2019, 100, .	1.1	84
30	Acoustic rainbow trapping by coiling up space. Scientific Reports, 2014, 4, 7038.	1.6	83
31	Unified and standardized procedure to solve various nonlinear Jaynes-Cummings models. Physical Review A, 1997, 55, 4545-4551.	1.0	79
32	Effective medium theory for anisotropic metamaterials. Scientific Reports, 2015, 5, 7892.	1.6	79
33	Macroscopic quantum entanglement in modulated optomechanics. Physical Review A, 2016, 94, .	1.0	76
34	A semi-Dirac point and an electromagnetic topological transition in a dielectric photonic crystal. Optics Express, 2014, 22, 1906.	1.7	75
35	Kuznetsov-Ma Soliton Dynamics Based on the Mechanical Effect of Light. Physical Review Letters, 2017, 119, 153901.	2.9	74
36	Perspective: Acoustic metamaterials in transition. Journal of Applied Physics, 2018, 123, .	1.1	66

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37	Total reflection and cloaking by zero index metamaterials loaded with rectangular dielectric defects. Applied Physics Letters, 2013, 102, .	1.5	64
38	Acoustic Purcell Effect for Enhanced Emission. Physical Review Letters, 2018, 120, 114301.	2.9	63
39	Optomechanically induced opacity and amplification in a quadratically coupled optomechanical system. Physical Review A, 2017, 95, .	1.0	62
40	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>N</mml:mi></mml:mrow></mml:math> -Phonon Bundle Emission via the Stokes Process. Physical Review Letters, 2020, 124, 053601.	2.9	61
41	Optomechanically induced transparency in the presence of an external time-harmonic-driving force. Scientific Reports, 2015, 5, 11278.	1.6	58
42	Flat acoustic lens by acoustic grating with curled slits. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 3389-3392.	0.9	54
43	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi mathvariant="script">PT</mml:mi></mml:math>-symmetry-induced evolution of sharp asymmetric line shapes and high-sensitivity refractive index sensors in a three-cavity array. Physical Review A, 2016, 93, .	1.0	54
44	Asymmetric optical transmission in an optomechanical array. Applied Physics Letters, 2015, 107, .	1.5	53
45	Matched infrared soliton pairs in graphene under Landau quantization via four-wave mixing. Physical Review A, 2014, 90, .	1.0	52
46	Simultaneous realization of a coherent perfect absorber and laser by zero-index media with both gain and loss. Physical Review A, 2016, 94, .	1.0	51
47	Three-Dimensional Acoustic Double-Zero-Index Medium with a Fourfold Degenerate Dirac-like Point. Physical Review Letters, 2020, 124, 074501.	2.9	51
48	Formation and ultraslow propagation of infrared solitons in graphene under an external magnetic field. Journal of Applied Physics, 2014, 115, 234301.	1.1	49
49	Proposal for enhanced photon blockade in parity-time-symmetric coupled microcavities. Physical Review A, 2015, 92, .	1.0	48
50	Deterministic and probabilistic deep learning models for inverse design of broadband acoustic cloak. Physical Review Research, 2021, 3, .	1.3	47
51	Topological Wannier cycles induced by sub-unit-cell artificial gauge flux in a sonic crystal. Nature Materials, 2022, 21, 430-437.	13.3	43
52	Formation and manipulation of optomechanical chaos via a bichromatic driving. Physical Review A, 2014, 90, .	1.0	42
53	Dial-in Topological Metamaterials Based on Bistable Stewart Platform. Scientific Reports, 2018, 8, 112.	1.6	41
54	Selection rule for Dirac-like points in two-dimensional dielectric photonic crystals. Optics Express, 2013, 21, 7699.	1.7	40

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55	Magnetically tunable multiband near-field radiative heat transfer between two graphene sheets. Physical Review B, 2019, 100, .	1.1	40
56	Dispersion relations and their symmetry properties of electromagnetic and elastic metamaterials in two dimensions. Physical Review B, 2009, 79, .	1.1	38
57	A proposed method to measure weak magnetic field based on a hybrid optomechanical system. Scientific Reports, 2017, 7, 12521.	1.6	38
58	Enhanced extraordinary optical transmission (EOT) through arrays of bridged nanohole pairs and their sensing applications. Nanoscale, 2014, 6, 7917.	2.8	36
59	Magnetic-field-dependent slow light in strontium atom-cavity system. Applied Physics Letters, 2018, 112, .	1.5	35
60	Observation of corner states in second-order topological electric circuits. Physical Review B, 2020, 102, .	1.1	34
61	Ultrathin metasurface with high absorptance for waterborne sound. Journal of Applied Physics, 2018, 123, .	1.1	33
62	Circuit quantum electrodynamics simulator of flat band physics in a Lieb lattice. Physical Review A, 2016, 93, .	1.0	32
63	Eigenstates and eigenenergies of four-wave-mixing models. Optics Letters, 2004, 29, 839.	1.7	30
64	Topological spin-Hall edge states of flexural wave in perforated metamaterial plates. Journal Physics D: Applied Physics, 2018, 51, 325302.	1.3	30
65	Giant enhancement of optical high-order sideband generation and their control in a dimer of two cavities with gain and loss. Physical Review A, 2016, 93, .	1.0	29
66	Enhancing monochromatic multipole emission by a subwavelength enclosure of degenerate Mie resonances. Journal of the Acoustical Society of America, 2017, 142, EL24-EL29.	0.5	29
67	Optomechanical Akhmediev Breathers. Laser and Photonics Reviews, 2018, 12, 1700305.	4.4	29
68	Enhanced nonlinear optics in coupled optical microcavities with an unbroken and broken parity-time symmetry. Physical Review A, 2015, 92, .	1.0	28
69	Collective radiance effects in the ultrastrong-coupling regime. Physical Review A, 2019, 99, .	1.0	28
70	Multiple topological phase transitions in a gyromagnetic photonic crystal. Physical Review A, 2017, 95, .	1.0	27
71	Quadrature-dependent Bogoliubov transformations and multiphoton squeezed states. Physical Review A, 2002, 66, .	1.0	26
72	Detecting topological phases of microwave photons in a circuit quantum electrodynamics lattice. Npj Quantum Information, 2016, 2, .	2.8	26

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73	Optical multistability and Fano line-shape control via mode coupling in whispering-gallery-mode microresonator optomechanics. Scientific Reports, 2017, 7, 39781.	1.6	26
74	Multi-dimensional wave steering with higher-order topological phononic crystal. Science Bulletin, 2021, 66, 1740-1745.	4.3	26
75	Lumped model for rotational modes in phononic crystals. Physical Review B, 2012, 86, .	1.1	25
76	Enhanced optical nonlinearity and fiber-optical frequency comb controlled by a single atom in a whispering-gallery-mode microtoroid resonator. Physical Review A, 2014, 90, .	1.0	25
77	Parity-Symmetry-Protected Multiphoton Bundle Emission. Physical Review Letters, 2021, 127, 073602.	2.9	25
78	Realizing and characterizing chiral photon flow in a circuit quantum electrodynamics necklace. Scientific Reports, 2015, 5, 8352.	1.6	24
79	Nonreciprocal chaos in a spinning optomechanical resonator. Physical Review A, 2021, 104, .	1.0	24
80	Magic numbers and erratic level crossings of double-well Bose-Einstein condensates. Optics Letters, 2006, 31, 519.	1.7	23
81	Acoustic frequency filter based on anisotropic topological phononic crystals. Scientific Reports, 2017, 7, 15005.	1.6	23
82	Room-Temperature Slow Light in a Coupled Cavity Magnon-Photon System. IEEE Access, 2019, 7, 57047-57053.	2.6	23
83	Fully quantized theory of four-wave mixing with bosonic matter waves. Optics Letters, 2005, 30, 311.	1.7	22
84	Polarization-based control of phonon laser action in aÂParity Time-symmetric optomechanical system. Communications Physics, 2018, 1, .	2.0	22
85	Generation of long-time maximum entanglement between two dipole emitters via a hybrid photonic-plasmonic resonator. Physical Review A, 2013, 87, .	1.0	20
86	Generation and control of optical frequency combs using cavity electromagnetically induced transparency. Physical Review A, 2018, 97, .	1.0	20
87	Self-dual singularity through lasing and antilasing in thin elastic plates. Physical Review B, 2021, 103, .	1.1	20
88	Three-Dimensional Electromagnetic Void Space. Physical Review Letters, 2021, 127, 123902.	2.9	20
89	Achieving three-dimensional entanglement between two spatially separated atoms by using the quantum Zeno effect. Physical Review A, 2013, 87, .	1.0	19
90	Bioâ€Assembled Nanocomposites in Conch Shells Exhibit Giant Electret Hysteresis. Advanced Materials, 2013, 25, 711-718.	11.1	19

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91	Coupled Resonators for Sound Trapping and Absorption. Scientific Reports, 2018, 8, 13855.	1.6	19
92	Dynamic modeling and experimental analyses of Stewart platform with flexible hinges. JVC/Journal of Vibration and Control, 2019, 25, 151-171.	1.5	19
93	Acoustic graphene network loaded with Helmholtz resonators: a first-principle modeling, Dirac cones, edge and interface waves. New Journal of Physics, 2020, 22, 013029.	1.2	19
94	Scattering cancellation technique for acoustic spinning objects. Physical Review B, 2020, 101, .	1.1	19
95	Magnetically induced optical transparency in a plasmon-exciton system. Physical Review A, 2021, 103, .	1.0	19
96	Pseudomagnetic Fields Enabled Manipulation of On-Chip Elastic Waves. Physical Review Letters, 2021, 127, 136401.	2.9	19
97	Enhanced photon antibunching via interference effects in a <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi mathvariant="normal">Î”</mml:mi></mml:math> configuration. Physical Review A, 2019, 100, .	1.0	17
98	Controllable chaos in hybrid electro-optomechanical systems. Scientific Reports, 2016, 6, 22705.	1.6	16
99	Multi-channel coherent perfect absorbers. Europhysics Letters, 2016, 114, 28003.	0.7	16
100	Directional sound beam emission from a configurable compact multi-source system. Scientific Reports, 2018, 8, 1018.	1.6	16
101	Optical-frequency-comb generation and entanglement with low-power optical input in a photonic molecule. Physical Review A, 2014, 90, .	1.0	15
102	Two-color second-order sideband generation in an optomechanical system with a two-level system. Scientific Reports, 2018, 8, 1060.	1.6	15
103	Topological helical edge states in water waves over a topographical bottom. New Journal of Physics, 2018, 20, 023051.	1.2	15
104	Abnormal topological refraction into free medium at subwavelength scale in valley phononic crystal plates. Physical Review B, 2021, 103, .	1.1	15
105	All-optical control of optical frequency combs via quantum interference effects in a single-emitter-microcavity system. Physical Review A, 2015, 91, .	1.0	14
106	Coherent destruction of tunneling in a lattice array with a controllable boundary. Physical Review A, 2015, 91, .	1.0	14
107	Effective medium of periodic fluid-solid composites. Europhysics Letters, 2012, 98, 54001.	0.7	13
108	Tunable higher-order sideband spectra in a waveguide-coupled photonic crystal molecule beyond the weak-excitation approximation. Physical Review A, 2014, 89, .	1.0	13

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109	Creation of quantum entanglement with two separate diamond nitrogen vacancy centers coupled to a photonic molecule. Journal of Applied Physics, 2013, 114, .	1.1	12
110	A new type of artificial structure to achieve broadband omnidirectional acoustic absorption. AIP Advances, 2013, 3, .	0.6	12
111	Dipole-induced high-order sideband comb employing a quantum dot strongly coupled to a photonic crystal cavity via a waveguide. Physical Review B, 2014, 89, .	1.1	12
112	Generation of a multi-qubit W entangled state through spatially separated semiconductor quantum-dot-molecules in cavity-quantum electrodynamics arrays. Journal of Applied Physics, 2014, 115, 134312.	1.1	12
113	Actively tunable double-Fano and Ramsey-Fano resonances in photonic molecules and improved sensing performance. Physical Review A, 2016, 94, .	1.0	12
114	Twist-projected two-dimensional acoustic topological insulators. Physical Review B, 2019, 99, .	1.1	11
115	Non-Hermitian electromagnetic double-near-zero index medium in a two-dimensional photonic crystal. Applied Physics Letters, 2021, 119, .	1.5	11
116	Fano line-shape control and superluminal light using cavity quantum electrodynamics with a partially transmitting element. Physical Review A, 2016, 93, .	1.0	10
117	Single-photon-triggered quantum chaos. Physical Review A, 2019, 100, .	1.0	10
118	Generalized thermoelastic band structures of Rayleigh wave in one-dimensional phononic crystals. Meccanica, 2018, 53, 923-935.	1.2	9
119	Entanglement and excited-state quantum phase transition in an extended Dicke model. Frontiers of Physics, 2019, 14, 1.	2.4	9
120	Interplay of quantum phase transition and flat band in hybrid lattices. Physical Review Research, 2020, 2, .	1.3	9
121	Highly Sensitive Mass Sensing by Means of the Optomechanical Nonlinearity. IEEE Photonics Journal, 2018, 10, 1-8.	1.0	8
122	Generating orthogonally polarized dual frequency combs with slow megahertz repetition rates by a low-nanowatt-level pump. Physical Review A, 2018, 98, .	1.0	8
123	Enhanced acoustic pressure sensors based on coherent perfect absorber-laser effect. Journal of Applied Physics, 2021, 129, .	1.1	8
124	Regularization of vertical-cavity surface-emitting laser emission by periodic non-Hermitian potentials. Optics Letters, 2019, 44, 3948.	1.7	8
125	Anisotropic dynamic mass density for fluidâ€“solid composites. Physica B: Condensed Matter, 2012, 407, 4093-4096.	1.3	7
126	Second-harmonic generation with ultralow-power pump thresholds in a dimer of two active-passive cavities. Physical Review A, 2017, 96, .	1.0	7

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127	Scheme for achieving coherent perfect absorption by anisotropic metamaterials. Optics Express, 2017, 25, 4860.	1.7	7
128	Highly Sensitive Optical Detector for Precision Measurement of Coulomb Coupling Strength Based on a Double-Oscillator Optomechanical System. IEEE Photonics Journal, 2018, 10, 1-11.	1.0	7
129	Subwavelength acoustic monopole source emission enhancement through dual gratings. Scientific Reports, 2019, 9, 11659.	1.6	7
130	A lumped model for rotational modes in periodic solid composites. Europhysics Letters, 2013, 104, 26001.	0.7	6
131	Controlling elastic waves with small phononic crystals containing rigid inclusions. Europhysics Letters, 2014, 106, 46003.	0.7	6
132	Phonon laser in the coupled vector cavity optomechanics. Scientific Reports, 2018, 8, 282.	1.6	6
133	Restricted Hilbert Transform for Non-Hermitian Management of Fields. Physical Review Applied, 2020, 14, .	1.5	6
134	Wave propagation in strongly scattered random elastic media: Energy equilibration and crossover from ballistic to diffusive behavior. Physical Review B, 2008, 77, .	1.1	5
135	Analytic descriptions of cylindrical electromagnetic waves in a nonlinear medium. Scientific Reports, 2015, 5, 11071.	1.6	5
136	Superfluidâ€“Mott-insulator transition in superconducting circuits with weak anharmonicity. Physical Review A, 2017, 96, .	1.0	5
137	Highly nonclassical phonon emission statistics through two-phonon loss of van der Pol oscillator. Journal of Applied Physics, 2020, 128, 234302.	1.1	5
138	Acoustic Beam Splitting and Cloaking Based on a Compressibility-Near-Zero Medium. Physical Review Applied, 2022, 17, .	1.5	5
139	Enhanced harmonic generation and carrier-envelope phase-dependent effects in cavity quantum electrodynamics. Physical Review A, 2015, 92, .	1.0	4
140	A numerical study of super-resolution through fast 3D wideband algorithm for scattering in highly-heterogeneous media. Wave Motion, 2017, 70, 113-134.	1.0	4
141	Hybrid Interference Induced Flat Band Localization in Bipartite Optomechanical Lattices. Scientific Reports, 2017, 7, 15188.	1.6	4
142	Chaosâ€related Localization in Modulated Lattice Array. Annalen Der Physik, 2018, 530, 1700218.	0.9	4
143	Switchable dynamics in the deep-strong-coupling regime. Physical Review A, 2018, 98, .	1.0	4
144	Tunable waveguide bends with graphene-based anisotropic metamaterials. Applied Physics Express, 2016, 9, 025101.	1.1	3

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145	Parity-Time Symmetry and Exceptional Points for Flexural-Gravity Waves in Buoyant Thin-Plates. Crystals, 2020, 10, 1039.	1.0	3
146	Spacetime modulation in floating thin elastic plates. Physical Review B, 2021, 104, .	1.1	3
147	Quantitative Analysis of Magnon Induced Second-Order Sideband Generation. IEEE Access, 2019, 7, 115574-115582.	2.6	2
148	Strongly correlated photons with quantum feedback in a cascaded nanoscale double-cavity system. Physical Review A, 2020, 102, .	1.0	2
149	Inverse-design of non-Hermitian potentials for on-demand asymmetric reflectivity. Optics Express, 2021, 29, 17001.	1.7	2
150	Magnetic-field-engineered optical nonlinearity and optical high-order sideband. Physical Review A, 2021, 104, .	1.0	2
151	Steady state and time-dependent energy equilibration in two-dimensional random elastic slabs. Journal of the Acoustical Society of America, 2009, 126, 1807-1816.	0.5	1
152	Optomechanically induced carrier-envelope-phase-dependent effects and their analytical solutions. Physical Review A, 2017, 95, .	1.0	1
153	Effective Medium Theories and Symmetry Properties of Elastic Metamaterials. , 0, , .		1
154	Semi-Dirac Points in Phononic Crystals. , 2014, , .		0
155	Manipulation of plasmonic resonances in graphene coated dielectric cylinders. , 2016, , .		0
156	Brightness Enhancement in Non-Hermitian VCSELs. , 2019, , .		0
157	Controllable phase-dependent Wigner-function negativity at steady state via parametric driving and feedback. Journal of Applied Physics, 2021, 129, 124301.	1.1	0
158	Restricted Hilbert transform for feasible light management. , 2021, , .		0