

# Wei Liu

## List of Publications by Year in descending order

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61  
papers

2,458  
citations

236612

25  
h-index

197535

49  
g-index

61  
all docs

61  
docs citations

61  
times ranked

2130  
citing authors

#	ARTICLE	IF	CITATIONS
1	Generalized Kerker effects in nanophotonics and meta-optics [Invited]. Optics Express, 2018, 26, 13085.	1.7	298
2	Broadband Unidirectional Scattering by Magneto-Electric Core-Shell Nanoparticles. ACS Nano, 2012, 6, 5489-5497.	7.3	277
3	Ultra-directional forward scattering by individual core-shell nanoparticles. Optics Express, 2014, 22, 16178.	1.7	147
4	Plasmonic Airy beam manipulation in linear optical potentials. Optics Letters, 2011, 36, 1164.	1.7	130
5	Towards photodetection with high efficiency and tunable spectral selectivity: graphene plasmonics for light trapping and absorption engineering. Nanoscale, 2015, 7, 13530-13536.	2.8	127
6	Invisible nanowires with interfering electric and toroidal dipoles. Optics Letters, 2015, 40, 2293.	1.7	105
7	Toroidal dipole-induced transparency in core-shell nanoparticles. Laser and Photonics Reviews, 2015, 9, 564-570.	4.4	86
8	Singularities and Poincaré Indices of Electromagnetic Multipoles. Physical Review Letters, 2019, 122, 153907.	2.9	86
9	Multipolar interference effects in nanophotonics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160317.	1.6	81
10	Strong field enhancement and light-matter interactions with all-dielectric metamaterials based on split bar resonators. Optics Express, 2014, 22, 30889.	1.7	79
11	Generalized Magnetic Mirrors. Physical Review Letters, 2017, 119, 123902.	2.9	79
12	Scattering of core-shell nanowires with the interference of electric and magnetic resonances. Optics Letters, 2013, 38, 2621.	1.7	75
13	Beam Steering with Dielectric Metalattices. ACS Photonics, 2018, 5, 1733-1741.	3.2	66
14	Optically isotropic responses induced by discrete rotational symmetry of nanoparticle clusters. Nanoscale, 2013, 5, 6395.	2.8	62
15	Nonlinear Lithium Niobate Metasurfaces for Second Harmonic Generation. Laser and Photonics Reviews, 2021, 15, 2000521.	4.4	57
16	Ultra-directional super-scattering of homogenous spherical particles with radial anisotropy. Optics Express, 2015, 23, 14734.	1.7	49
17	Polarization-independent Fano resonances in arrays of core-shell nanoparticles. Physical Review B, 2012, 86, .	1.1	47
18	Control of light scattering by nanoparticles with optically-induced magnetic responses. Chinese Physics B, 2014, 23, 047806.	0.7	43

#	ARTICLE	IF	CITATIONS
19	Topological polarization singularities in metaphotonics. <i>Nanophotonics</i> , 2021, 10, 1469-1486.	2.9	42
20	Multipolar Conversion Induced Subwavelength High-Q Kerker Supermodes with Unidirectional Radiations. <i>Laser and Photonics Reviews</i> , 2019, 13, 1900067.	4.4	39
21	Electromagnetically induced transparency-like optical responses in all-dielectric metamaterials. <i>Journal of Optics (United Kingdom)</i> , 2014, 16, 125102.	1.0	33
22	Superscattering pattern shaping for radially anisotropic nanowires. <i>Physical Review A</i> , 2017, 96, .	1.0	33
23	Extremize Optical Chiralities through Polarization Singularities. <i>Physical Review Letters</i> , 2021, 126, 253901.	2.9	33
24	Efficient excitation and tuning of toroidal dipoles within individual homogenous nanoparticles. <i>Optics Express</i> , 2015, 23, 24738.	1.7	32
25	Geometric interpretations for resonances of plasmonic nanoparticles. <i>Scientific Reports</i> , 2015, 5, 12148.	1.6	25
26	Polychromatic nanofocusing of surface plasmon polaritons. <i>Physical Review B</i> , 2011, 83, .	1.1	23
27	Polarization Singularities of Photonic Quasicrystals in Momentum Space. <i>Physical Review Letters</i> , 2021, 127, 043901.	2.9	22
28	Unidirectional superscattering by multilayered cavities of effective radial anisotropy. <i>Scientific Reports</i> , 2016, 6, 34775.	1.6	19
29	Line Singularities and Hopf Indices of Electromagnetic Multipoles. <i>Laser and Photonics Reviews</i> , 2020, 14, 2000049.	4.4	19
30	Scattering Invisibility With Free-Space Field Enhancement of All-Dielectric Nanoparticles. <i>Laser and Photonics Reviews</i> , 2017, 11, 1700103.	4.4	18
31	Deep-learning-enabled inverse engineering of multi-wavelength invisibility-to-superscattering switching with phase-change materials. <i>Optics Express</i> , 2021, 29, 10527.	1.7	18
32	Evolution and global charge conservation for polarization singularities emerging from non-Hermitian degeneracies. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	17
33	Magnetic Light: Optical Magnetism of Dielectric Nanoparticles. <i>Optics and Photonics News</i> , 2012, 23, 35.	0.4	15
34	Q-factor enhancement in all-dielectric anisotropic nanoresonators. <i>Physical Review B</i> , 2016, 94, .	1.1	15
35	Mode transformation in waveguiding plasmonic structures. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2011, 9, 207-212.	1.0	14
36	Scattering activities bounded by reciprocity and parity conservation. <i>Physical Review Research</i> , 2020, 2, .	1.3	13

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37	On the constraints of electromagnetic multipoles for symmetric scatterers: eigenmode analysis. Optics Express, 2020, 28, 3073.	1.7	13
38	Cascaded rotational Doppler effect. Optics Letters, 2019, 44, 2346.	1.7	13
39	Elusive Pure Anapole Excitation in Homogenous Spherical Nanoparticles with Radial Anisotropy. Journal of Nanomaterials, 2015, 2015, 1-7.	1.5	11
40	Optical Metasurfaces for Designing Planar Cassegrain-Schwarzschild Objectives. Physical Review Applied, 2019, 11, .	1.5	11
41	Global Mie Scattering: Polarization Morphologies and the Underlying Topological Invariant. ACS Omega, 2020, 5, 14157-14163.	1.6	10
42	Optical telescope with Cassegrain metasurfaces. Nanophotonics, 2020, 9, 3263-3269.	2.9	10
43	Electromagnetic Duality Protected Scattering Properties of Nonmagnetic Particles. ACS Photonics, 2020, 7, 1830-1838.	3.2	8
44	Polarization singularities in light scattering by small particles. Physical Review A, 2021, 103, .	1.0	8
45	Second Harmonic Generation Enhancement From Plasmonic Toroidal Resonance in Core-Shell Nanodisk. IEEE Photonics Journal, 2021, 13, 1-9.	1.0	8
46	Complete spectral gap in coupled dielectric waveguides embedded into metal. Applied Physics Letters, 2010, 97, 021106.	1.5	6
47	Q-factor and absorption enhancement for plasmonic anisotropic nanoparticles. Optics Letters, 2016, 41, 3563.	1.7	6
48	Manipulation of Airy plasmon beams by linear optical potentials. , 2011, , .		5
49	Scattering invariance for arbitrary polarizations protected by joint spatial-duality symmetries. Physical Review B, 2020, 102, .	1.1	5
50	Visible supercontinuum generation through hollow beams in a two-mode photonic crystal fiber. Applied Physics Express, 2014, 7, 062502.	1.1	4
51	Mutual injection coupling and phase locking of two multiwavelength fiber lasers. Optical Engineering, 2017, 56, 026121.	0.5	3
52	Scattering and absorption invariance of nonmagnetic particles under duality transformations. Physical Review A, 2020, 102, .	1.0	3
53	Bouncing plasmonic waves in half-parabolic potentials. Physical Review A, 2011, 84, .	1.0	2
54	Adiabatic nanofocusing of the fundamental modes in plasmonic parabolic potentials. Optics Communications, 2015, 346, 88-92.	1.0	2

#	ARTICLE	IF	CITATIONS
55	Symmetry Protected Invariant Scattering Properties for Incident Plane Waves of Arbitrary Polarizations. <i>Laser and Photonics Reviews</i> , 2021, 15, 2000496.	4.4	2
56	Airy Plasmons: Bending Light on a Chip. <i>Optics and Photonics News</i> , 2011, 22, 35.	0.4	1
57	Multipolar Conversion Induced Subwavelength High-Q Kerker Supermodes. , 2019, , .		1
58	Arbitrary polarization-independent backscattering or reflection by rotationally symmetric reciprocal structures. <i>Physical Review B</i> , 2021, 103, .	1.1	1
59	Multiple unidirectional forward scattering of hybrid metal-dielectric nanoantenna in the near-infrared region. <i>Optical Materials Express</i> , 2018, 8, 3410.	1.6	1
60	Plasmonic analogue of quantum paddle balls. , 2011, , .		0
61	Ultradirectional scattering of radially anisotropic nanoparticles. , 2016, , .		0