Andrea Aiello

List of Publications by Year
in descending order

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93 papers	4,894 citations	126907 33 h-index	91884 69 g-index
93 all docs	93 docs citations	93 times ranked	3007 citing authors

#	Article	IF	Citations
1	From transverse angular momentum to photonic wheels. Nature Photonics, 2015, 9, 789-795.	31.4	448
2	Role of beam propagation in Goosâ€“HÃnchen and Imbertâ€“Fedorov shifts. Optics Letters, 2008, 33, 1437.	3.3	299
3	Angular momenta and spin-orbit interaction of nonparaxial light in free space. Physical Review A, 2010, 82, .	2.5	232
4	Observation of Goos-HÃnchen shifts in metallic reflection. Optics Express, 2007, 15, 15928.	3.4	214
5	Transverse Angular Momentum and Geometric Spin Hall Effect of Light. Physical Review Letters, 2009, 103, 100401.	7.8	214
6	Measuring the Transverse Spin Density of Light. Physical Review Letters, 2015, 114, 063901.	7.8	204
7	Experimental Demonstration of Fractional Orbital Angular Momentum Entanglement of Two Photons. Physical Review Letters, 2005, 95, 240501.	7.8	199
8	Observing angular deviations in the specular reflection of a light beam. Nature Photonics, 2009, 3, 337-340.	31.4	195
9	A versatile source of single photons for quantum information processing. Nature Communications, 2013, 4, 1818.	12.8	181
10	Classical and quantum properties of cylindrically polarized states of light. Optics Express, 2011, 19, 9714.	3.4	169
11	Classical entanglement in polarization metrology. New Journal of Physics, 2014, 16, 073019.	2.9	167
12	Quantumâ˜like nonseparable structures in optical beams. New Journal of Physics, 2015, 17, 043024.	2.9	156
13	Low-Threshold Optical Parametric Oscillations in a Whispering Gallery Mode Resonator. Physical Review Letters, 2010, 105, 263904.	7.8	149
14	Quantum Light from a Whispering-Gallery-Mode Disk Resonator. Physical Review Letters, 2011, 106, 113901.	7.8	132
15	Classically entangled optical beams for high-speed kinematic sensing. Optica, 2015, 2, 864.	9.3	131
16	Goosâ€“HÃnchen and Imbertâ€“Fedorov shifts: a novel perspective. New Journal of Physics, 2012, 14, 013058.	2.9	109
17	How to Observe High-Dimensional Two-Photon Entanglement with Only Two Detectors. Physical Review Letters, 2004, 92, 217901.	7.8	92
18	Spin Hall effect of light in metallic reflection. Optics Letters, 2011, 36, 3200.	3.3	85

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19	Dipole pulse theory: Maximizing the field amplitude from<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>4</mml:mn><mml:mi>Ï€</mml:mi></mml:mrow></mml:math>focused laser pulses. Physical Review A, 2012, 86, .	2.5	77
20	Shannon Dimensionality of Quantum Channels and Its Application to Photon Entanglement. Physical Review Letters, 2008, 101, 120502.	7.8	72
21	Optimal Frames for Polarization State Reconstruction. Physical Review Letters, 2015, 115, 263901.	7.8	67
22	Goosâ€“HÃnchen and Imbertâ€“Fedorov shifts from a quantum-mechanical perspective. New Journal of Physics, 2013, 15, 113059.	2.9	66
23	Goosâ€“HÃnchen and Imbertâ€“Fedorov shifts of a nondiffracting Bessel beam. Optics Letters, 2011, 36, 543.	3.3	58
24	Observation of the Geometric Spin Hall Effect of Light. Physical Review Letters, 2014, 112, 113902.	7.8	58
25	Demonstration of local teleportation using classical entanglement. Laser and Photonics Reviews, 2016, 10, 317-321.	8.7	53
26	Classically Entangled Light. Progress in Optics, 2019, 64, 99-153.	0.6	52
27	Brewster cross polarization. Optics Letters, 2009, 34, 1207.	3.3	51
28	Interaction of Relativistic Electron-Vortex Beams with Few-Cycle Laser Pulses. Physical Review Letters, 2014, 112, 134801.	7.8	51
29	Geometric spin Hall effect of light in tightly focused polarization-tailored light beams. Physical Review A, 2014, 89, .	2.5	47
30	Wave-optics description of self-healing mechanism in Bessel beams. Optics Letters, 2014, 39, 6819.	3.3	45
31	Maximum-likelihood estimation of Mueller matrices. Optics Letters, 2006, 31, 817.	3.3	44
32	Goosâ€“HÃnchen and Imbertâ€“Fedorov shifts for bounded wavepackets of light. Journal of Optics (United Kingdom), 2013, 15, 014004.	2.2	41
33	Observation of Orbital Angular Momentum Sidebands due to Optical Reflection. Physical Review Letters, 2012, 109, 113602.	7.8	38
34	The ubiquitous photonic wheel. Journal of Optics (United Kingdom), 2016, 18, 085605.	2.2	35
35	Unraveling beam self-healing. Optics Express, 2017, 25, 19147.	3.4	34
36	Demonstration of a quasi-scalar angular Goos-HÃnchen effect. Optics Letters, 2010, 35, 3562.	3.3	33

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37	Quadrant detector calibration for vortex beams. Optics Letters, 2011, 36, 409.	3.3	31
38	Experimental observation of universality in depolarized light scattering. Optics Letters, 2005, 30, 3216.	3.3	28
39	Loss-induced transition of the Goos-HÃnchen effect for metals and dielectrics. Optics Express, 2008, 16, 3961.	3.4	28
40	Radially and azimuthally polarized nonparaxial Bessel beams made simple. Optics Express, 2013, 21, 15530.	3.4	27
41	Transverse angular momentum of photons. Physical Review A, 2010, 81, .	2.5	25
42	Spatial Coherence and Optical Beam Shifts. Physical Review Letters, 2012, 109, 213901.	7.8	24
43	Role of spatial coherence in Goos-HÃnchen and Imbertâ€“Fedorov shifts. Optics Letters, 2011, 36, 3151.	3.3	23
44	Generalized Bessel beams with two indices. Optics Letters, 2014, 39, 5618.	3.3	23
45	The polarization properties of a tilted polarizer. Optics Express, 2013, 21, 27032.	3.4	21
46	Note on the helicity decomposition of spin and orbital optical currents. Journal of Optics (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	2.2	21
47	Tunable spatial decoherers for polarization-entangled photons. Optics Letters, 2006, 31, 2057.	3.3	19
48	Geometric Spin Hall Effect of Light at polarizing interfaces. Applied Physics B: Lasers and Optics, 2011, 102, 427-432.	2.2	18
49	Goosâ€“HÃnchen and Imbertâ€“Fedorov shifts for paraxial X-waves. Optics Letters, 2015, 40, 558.	3.3	18
50	Nonparaxial polarizers. Optics Letters, 2009, 34, 3160.	3.3	16
51	Radial mode dependence of optical beam shifts. Optics Letters, 2012, 37, 1044.	3.3	16
52	Cylindrically polarized Besselâ€“Gauss beams. Journal of Optics (United Kingdom), 2015, 17, 025603.	2.2	16
53	Theory of anisotropic whispering-gallery-mode resonators. Physical Review A, 2011, 84, .	2.5	15
54	Surface angular momentum of light beams. Optics Express, 2014, 22, 6586.	3.4	15

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55	Goosâ€“HÃnchen and Imbertâ€“Fedorov shifts for astigmatic Gaussian beams. Journal of Optics (United) Tj ETQq1 1 0.784314 rgBT /	2.2	15
56	Role of spatial coherence in polarization tomography. Optics Letters, 2005, 30, 1599.	3.3	13
57	Goos-HÃnchen shift for a rough metallic mirror. Optics Express, 2009, 17, 10864.	3.4	13
58	Input-output relations in optical cavities: A simple point of view. Physical Review A, 2000, 62, .	2.5	12
59	Experimental generation of amplitude squeezed vector beams. Optics Express, 2016, 24, 12385.	3.4	11
60	Picosecond pulse generation in the thresholdless optical microlaser. Applied Physics Letters, 1994, 65, 1891-1893.	3.3	10
61	Microcavity transverse coherence length and microlaser threshold. Optics Letters, 1995, 20, 1492.	3.3	10
62	Parametric fluorescence and second-harmonic generation in a planar Fabry-Perot microcavity. Physical Review A, 1998, 58, 2446-2459.	2.5	10
63	Total internal reflection of orbital angular momentum beams. Journal of Optics (United Kingdom), 2013, 15, 014012.	2.2	10
64	The Hertz vector revisited: a simple physical picture. Journal of Optics (United Kingdom), 2014, 16, 105705.	2.2	10
65	Single-mode squeezing in arbitrary spatial modes. Optics Express, 2016, 24, 7633.	3.4	10
66	Polarization temporal dynamics in a dye microlaser. Optics Letters, 1996, 21, 149.	3.3	8
67	Identical classical particles: Half fermions and half bosons. Physical Review A, 2013, 88, .	2.5	7
68	All photons are equal but some photons are more equal than others. New Journal of Physics, 2012, 14, 093051.	2.9	6
69	Role of spatial coherence in Goosâ€“HÃnchen and Imbertâ€“Fedorov shifts: reply to comment. Optics Letters, 2012, 37, 1057.	3.3	6
70	Near field of an oscillating electric dipole and cross-polarization of a collimated beam of light: Two sides of the same coin. American Journal of Physics, 2014, 82, 860-868.	0.7	6
71	Quantum uncertainty in the beam width of spatial optical modes. Optics Express, 2015, 23, 32777.	3.4	6
72	Perturbation theory of optical resonances of deformed dielectric spheres. Physical Review A, 2019, 100, .	2.5	5

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73	A non-separability measure for spatially disjoint vectorial fields. New Journal of Physics, 2022, 24, 063032.	2.9	5
74	Spontaneous generation of singularities in paraxial optical fields. Optics Letters, 2016, 41, 1668.	3.3	4
75	Field theory of monochromatic optical beams: I. Classical fields. Journal of Optics (United Kingdom), 2020, 22, 014001.	2.2	4
76	Microsphere kinematics from the polarization of tightly focused nonseparable light. Optics Express, 2021, 29, 12429.	3.4	4
77	Renormalized Mutual Information for Artificial Scientific Discovery. Physical Review Letters, 2021, 126, 200601.	7.8	4
78	Observation of concentrating paraxial beams. OSA Continuum, 2020, 3, 2387.	1.8	4
79	Chaotic ray dynamics in an optical cavity with a beam splitter. Optics Letters, 2004, 29, 929.	3.3	3
80	Analytical Approximations of Whispering Gallery Modes in Anisotropic Ellipsoidal Resonators. Research Letters in Physics, 2014, 2014, 1-10.	0.2	3
81	Detecting the spatial quantum uncertainty of bosonic systems. New Journal of Physics, 2016, 18, 093004.	2.9	3
82	Perturbation theory of nearly spherical dielectric optical resonators. Physical Review A, 2021, 104, .	2.5	3
83	Visualizing the quantum interaction picture in phase space. European Journal of Physics, 2012, 33, 1367-1381.	0.6	2
84	Field theory of monochromatic optical beams: II. Classical and quantum paraxial fields. Journal of Optics (United Kingdom), 2020, 22, 014002.	2.2	2
85	One more time on the helicity decomposition of spin and orbital optical currents. Journal of Physics A: Mathematical and Theoretical, 0, , .	2.1	2
86	Cluster State Generation with Quadrature Squeezed Cylindrically Polarized Modes. , 2012, , .		1
87	Optical properties of a tilted polarizer and geometric Spin Hall Effect of Light. , 2011, , .		0
88	Classical optics representation of the quantum mechanical translation operator via ABCD matrices. Journal of Optics (United Kingdom), 2013, 15, 075715.	2.2	0
89	Quantum Uncertainty in the Beam Width for Optical Spatial Modes. , 2016, , .		0
90	Direct Measurement of the Geometric Spin Hall Effect of Light. , 2012, , .		0

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91	Demonstration of a State of Light with Purely Transverse Angular Momentum. , 2013, , .		0
92	Demonstration of a State of Light with Purely Transverse Angular Momentum. , 2013, , .		0
93	Demonstration of local teleportation using classical entanglement. , 2017, , .		0