

Carmelo Rosales-Guzmán

List of Publications by Year in descending order

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Version: 2024-02-01

77
papers

4,210
citations

136950

32
h-index

123424

61
g-index

78
all docs

78
docs citations

78
times ranked

2283
citing authors

#	ARTICLE	IF	CITATIONS
1	Roadmap on structured light. <i>Journal of Optics (United Kingdom)</i> , 2017, 19, 013001.	2.2	888
2	Optical trapping with structured light: a review. <i>Advanced Photonics</i> , 2021, 3, .	11.8	317
3	A review of complex vector light fields and their applications. <i>Journal of Optics (United Kingdom)</i> , 2018, 20, 123001.	2.2	296
4	Characterizing quantum channels with non-separable states of classical light. <i>Nature Physics</i> , 2017, 13, 397-402.	16.7	218
5	Creation and Detection of Vector Vortex Modes for Classical and Quantum Communication. <i>Journal of Lightwave Technology</i> , 2018, 36, 292-301.	4.6	207
6	Optical communication beyond orbital angular momentum. <i>Scientific Reports</i> , 2016, 6, 27674.	3.3	179
7	Simultaneous generation of multiple vector beams on a single SLM. <i>Optics Express</i> , 2017, 25, 25697.	3.4	122
8	Manipulation of Orbital-Angular-Momentum Spectrum Using Pinhole Plates. <i>Physical Review Applied</i> , 2019, 12, .	3.8	97
9	Beam quality measure for vector beams. <i>Optics Letters</i> , 2016, 41, 3407.	3.3	89
10	Entanglement beating in free space through spin-orbit coupling. <i>Light: Science and Applications</i> , 2018, 7, 18009-18009.	16.6	88
11	Measurement of flow vorticity with helical beams of light. <i>Optica</i> , 2015, 2, 1002.	9.3	73
12	Experimental detection of transverse particle movement with structured light. <i>Scientific Reports</i> , 2013, 3, 2815.	3.3	69
13	On the resilience of scalar and vector vortex modes in turbulence. <i>Optics Express</i> , 2016, 24, 18105.	3.4	69
14	A vector holographic optical trap. <i>Scientific Reports</i> , 2018, 8, 17387.	3.3	60
15	In situ detection of a cooperative target's longitudinal and angular speed using structured light. <i>Optics Letters</i> , 2019, 44, 3070.	3.3	56
16	Basis-independent tomography and nonseparability witnesses of pure complex vectorial light fields by Stokes projections. <i>Physical Review A</i> , 2019, 100, .	2.5	52
17	Nonseparable States of Light: From Quantum to Classical. <i>Laser and Photonics Reviews</i> , 2022, 16, .	8.7	52
18	Light with enhanced optical chirality. <i>Optics Letters</i> , 2012, 37, 3486.	3.3	51

#	ARTICLE	IF	CITATIONS
19	Self-healing high-dimensional quantum key distribution using hybrid spin-orbit Bessel states. Optics Express, 2018, 26, 26946.	3.4	50
20	Generation of Optical Skyrmions with Tunable Topological Textures. ACS Photonics, 2022, 9, 296-303.	6.6	49
21	Direction-sensitive transverse velocity measurement by phase-modulated structured light beams. Optics Letters, 2014, 39, 5415.	3.3	48
22	Multiplexing 200 spatial modes with a single hologram. Journal of Optics (United Kingdom), 2017, 19, 113501.	2.2	48
23	Tackling Africa's digital divide. Nature Photonics, 2018, 12, 249-252.	31.4	44
24	Radially dependent angular acceleration of twisted light. Optics Letters, 2017, 42, 675.	3.3	43
25	High-dimensional cryptography with spatial modes of light: tutorial. Journal of the Optical Society of America B: Optical Physics, 2020, 37, A309.	2.1	41
26	Measuring the translational and rotational velocities of particles in helical motion using structured light. Optics Express, 2014, 22, 16504.	3.4	40
27	Vectorial nonlinear optics: Type-II second-harmonic generation driven by spin-orbit-coupled fields. Physical Review A, 2019, 100, .	2.5	40
28	Polarisation-insensitive generation of complex vector modes from a digital micromirror device. Scientific Reports, 2020, 10, 10434.	3.3	40
29	Helico-conical optical beams self-heal. Optics Letters, 2013, 38, 383.	3.3	39
30	Recovery of nonseparability in self-healing vector Bessel beams. Physical Review A, 2018, 98, .	2.5	39
31	Revealing the invariance of vectorial structured light in complex media. Nature Photonics, 2022, 16, 538-546.	31.4	39
32	Real-time Stokes polarimetry using a digital micromirror device. Optics Express, 2019, 27, 31087.	3.4	36
33	Classically entangled Ince's Gaussian modes. Applied Physics Letters, 2020, 116, .	3.3	33
34	Modal Diversity for Robust Free-Space Optical Communications. Physical Review Applied, 2018, 10, .	3.8	31
35	Radial modal transitions of Laguerre-Gauss modes during parametric up-conversion: Towards the full-field selection rule of spatial modes. Physical Review A, 2020, 101, .	2.5	29
36	Conformal frequency conversion for arbitrary vectorial structured light. Optica, 2022, 9, 187.	9.3	27

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37	Classical and quantum analysis of propagation invariant vector flat-top beams. <i>Applied Optics</i> , 2018, 57, 5451.	1.8	26
38	Spatial-Polarization-Independent Parametric Up-Conversion of Vectorially Structured Light. <i>Physical Review Applied</i> , 2020, 13, .	3.8	26
39	Determining the non-separability of vector modes with digital micromirror devices. <i>Applied Physics Letters</i> , 2020, 116, .	3.3	26
40	Hong-Ou-Mandel interference of entangled Hermite-Gauss modes. <i>Physical Review A</i> , 2016, 94, .	2.5	25
41	Evolution of orbital angular momentum in three-dimensional structured light. <i>Physical Review A</i> , 2018, 98, .	2.5	25
42	Gouy-phase-mediated propagation variations and revivals of transverse structure in vectorially structured light. <i>Physical Review A</i> , 2021, 103, .	2.5	25
43	Generation of structured light by multilevel orbital angular momentum holograms. <i>Optics Express</i> , 2019, 27, 6459.	3.4	23
44	All-digital Stokes polarimetry with a digital micromirror device. <i>Optics Letters</i> , 2020, 45, 2319.	3.3	23
45	Collision of propagating vortices embedded within Airy beams. <i>Journal of Optics (United Kingdom)</i> , 2013, 15, 044001.	2.2	21
46	Free-space local nonseparability dynamics of vector modes. <i>Photonics Research</i> , 2021, 9, 439.	7.0	21
47	Parametric upconversion of Inceâ€“Gaussian modes. <i>Optics Letters</i> , 2020, 45, 3034.	3.3	20
48	Nanostep height measurement via spatial mode projection. <i>Optics Letters</i> , 2014, 39, 299.	3.3	17
49	Does the structure of light influence the speckle size?. <i>Scientific Reports</i> , 2020, 10, 199.	3.3	17
50	Experimental generation of helical Mathieuâ€“Gauss vector modes. <i>Journal of Optics (United Kingdom)</i> , 2021, 23, 034004.	2.2	15
51	Parabolic-accelerating vector waves. <i>Nanophotonics</i> , 2022, 11, 681-688.	6.0	12
52	Generation and characterization of complex vector modes with digital micromirror devices: a tutorial. <i>Journal of Optics (United Kingdom)</i> , 2022, 24, 034001.	2.2	11
53	Generating arbitrary arrays of circular Airy Gaussian vortex beams with a single digital hologram. <i>Applied Physics B: Lasers and Optics</i> , 2021, 127, 1.	2.2	9
54	High-speed generation of singular beams through random spatial multiplexing. <i>Journal of Optics (United Kingdom)</i> , 2021, 23, 044002.	2.2	9

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55	All-digital 3-dimensional profilometry of nano-scaled surfaces with spatial light modulators. Applied Physics B: Lasers and Optics, 2021, 127, 1.	2.2	5
56	A non-separability measure for spatially disjoint vectorial fields. New Journal of Physics, 2022, 24, 063032.	2.9	5
57	Heralded Generation of Vectorially Structured Photons With a High Purity. Frontiers in Physics, 2021, 9, .	2.1	4
58	A hybrid quantum eraser scheme for characterization of free-space and fiber communication channels. Optics Communications, 2018, 408, 53-57.	2.1	3
59	Propagation-invariant high-dimensional orbital angular momentum states. Journal of Optics (United Kingdom), 2022, 24, 074007.	2.2	3
60	Optical communications beyond orbital angular momentum. , 2016, , .		2
61	Polarization reconstruction with a digital micro-mirror device. , 2020, , .		2
62	Highly-stable generation of vector beams through a common-path interferometer and a DMD. Journal of Optics (United Kingdom), 2022, 24, 074007.	2.2	2
63	Optical metrology with structured light. , 2016, , .		1
64	Multiplexing of spatial modes in the mid-IR region. , 2017, , .		1
65	A tribute to Marat Soskin. Journal of Optics (United Kingdom), 2021, 23, 050201.	2.2	1
66	Generation of multiple vector beams using a single hologram. , 2018, , .		1
67	A New Type of Light With Optical Chirality. , 2012, , .		0
68	Vector quality measure for vector beams. , 2016, , .		0
69	Exploiting the spatial profiles of light. Proceedings of SPIE, 2017, , .	0.8	0
70	Measuring the non-separability of optical fields. , 2017, , .		0
71	Accelerating vector beams along parabolic trajectories. , 2021, , .		0
72	Free-space local nonseparability dynamics of parabolic vector modes. , 2021, , .		0

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73	Free-space communication with over 100 spatial modes. , 2016, , .		0
74	Complex light-assisted optical metrology techniques. , 2018, , .		0
75	Generation of propagation invariant vector flat-top beams. , 2018, , .		0
76	Simultaneous determination of 3-dimensional velocity components using a single vector beam. , 2019, , .		0
77	On-demand vector holographic optical tweezers. , 2019, , .		0