

Raul I Hernandez-Aranda

List of Publications by Year in descending order

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49
papers

726
citations

623734

14
h-index

526287

27
g-index

51
all docs

51
docs citations

51
times ranked

567
citing authors

#	ARTICLE	IF	CITATIONS
1	Characterizing quantum channels with non-separable states of classical light. <i>Nature Physics</i> , 2017, 13, 397-402.	16.7	218
2	Optical Rankine Vortex and Anomalous Circulation of Light. <i>Physical Review Letters</i> , 2007, 99, 163901.	7.8	64
3	Digital generation of partially coherent vortex beams. <i>Optics Letters</i> , 2016, 41, 3471.	3.3	58
4	A deterministic detector for vector vortex states. <i>Scientific Reports</i> , 2017, 7, 13882.	3.3	44
5	Propagation of generalized vector Helmholtz-Gauss beams through paraxial optical systems. <i>Optics Express</i> , 2006, 14, 8974.	3.4	42
6	Quantum computation with classical light: The Deutsch Algorithm. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2015, 379, 1675-1680.	2.1	38
7	On-demand tailored vector beams. <i>Applied Optics</i> , 2017, 56, 6967.	1.8	30
8	Theory of the unstable Bessel resonator. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2005, 22, 1909.	1.5	25
9	Free-space local nonseparability dynamics of vector modes. <i>Photonics Research</i> , 2021, 9, 439.	7.0	21
10	Dynamics of polarization singularities in composite optical vortices. <i>Journal of Optics (United Kingdom)</i> , 2017, 10, 1750382.	2.2	17
11	Quantum computation with classical light: Implementation of the Deutsch-Jozsa algorithm. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2016, 380, 1925-1931.	2.1	17
12	Geometric phase morphology of Jones matrices. <i>Optics Letters</i> , 2017, 42, 2667.	3.3	17
13	The first iteration of Grover's algorithm using classical light with orbital angular momentum. <i>Journal of Modern Optics</i> , 2018, 65, 1942-1948.	1.3	15
14	Experimental generation of helical Mathieu-Gauss vector modes. <i>Journal of Optics (United Kingdom)</i> , 2021, 23, 034004.	2.2	15
15	Optical interference with digital holograms. <i>American Journal of Physics</i> , 2016, 84, 508-516.	0.7	14
16	Adsorptive removal of emerging pollutants from groundwater by using modified titanate nanotubes. <i>Journal of Environmental Chemical Engineering</i> , 2018, 6, 5332-5340.	6.7	14
17	Accessible quantitative phase imaging in confocal microscopy with sinusoidal-phase synthetic optical holography. <i>Applied Optics</i> , 2019, 58, A55.	1.8	13
18	Parabolic-accelerating vector waves. <i>Nanophotonics</i> , 2022, 11, 681-688.	6.0	12

#	ARTICLE	IF	CITATIONS
19	Determination of angular momentum content in partially coherent beams through cross correlation measurements. Proceedings of SPIE, 2013, , .	0.8	10
20	Focal shift in vector Mathieu-Gauss beams. Optics Express, 2008, 16, 5838.	3.4	8
21	Partially coherent Inceâ€“Gaussian beams. Optics Letters, 2020, 45, 3276.	3.3	7
22	Orbital angular momentum of optical vortices from power measurements and the cross-correlation function. Optics Letters, 2014, 39, 1929.	3.3	6
23	Morphological transformation of generalized spirally polarized beams by anisotropic media and its experimental characterization. Optics Express, 2019, 27, 33412.	3.4	5
24	A non-separability measure for spatially disjoint vectorial fields. New Journal of Physics, 2022, 24, 063032.	2.9	5
25	Measurement of orbital angular momentum with an off-axis superposition of vector modes. Journal of Optics (United Kingdom), 2014, 16, 045702.	2.2	4
26	Measuring topological charge using Stokes parameters. , 2013, , .		2
27	3D thickness map reconstruction of dielectric thin films using scattering of surface plasmon polaritons. Optics Letters, 2018, 43, 691.	3.3	2
28	Focal shift in vector Mathieu-Gauss beams. , 2007, , .		1
29	Analysis of eigenfields in the axicon-based Bessel-Gauss resonator by the transfer-matrix method: comment. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2007, 24, 1209.	1.5	1
30	Structured light in the spatially partially coherent regime. Journal of Optics (United Kingdom), 0, , .	2.2	1
31	Wave and geometrical analysis of the unstable Bessel resonator. , 2005, , .		0
32	Propagation dynamics of vector Mathieu-Gauss beams. , 2006, 6290, 305.		0
33	Comment on "Eigenfields and output beams of an unstable Bessel-Gauss resonator". Applied Optics, 2007, 46, 1139.	2.1	0
34	Focal shift effect in vector parabolic-Gauss beams. Proceedings of SPIE, 2008, , .	0.8	0
35	Intra-cavity generation of a superposition of Bessel-Gauss beams. Proceedings of SPIE, 2012, , .	0.8	0
36	Focal shift of dual auto-focusing Airy beams. , 2014, , .		0

#	ARTICLE	IF	CITATIONS
37	Quasi-one-dimensional optical lattices for soliton manipulation. Optics Letters, 2014, 39, 6545.	3.3	0
38	Cross-correlation measurements and the topological charge of a Laguerre-Gaussian beam. , 2014, , .		0
39	Digital control of spatial coherence in vortex beams. Proceedings of SPIE, 2016, , .	0.8	0
40	Internal energy flows in composite optical vortices. Proceedings of SPIE, 2016, , .	0.8	0
41	Digital holography techniques for optical interference. Proceedings of SPIE, 2016, , .	0.8	0
42	Implementation of Deutsch and Deutsch-Jozsa algorithms with classical light. Proceedings of SPIE, 2016, , .	0.8	0
43	Modal decomposition of a partially coherent Ince-Gaussian beams. , 2021, , .		0
44	Morphological segmentation and digital image processing to retrieve geometric characteristics of fabric filaments. , 2005, , .		0
45	Hybrid entanglement for quantum information and communication applications. , 2017, , .		0
46	Generation of arbitrary vector beams. , 2017, , .		0
47	Analysis of the geometric phase produced by homogeneous and inhomogeneous Jones matrices for applications in space-variant polarized beams. , 2017, , .		0
48	Spatial coherence properties of digitally generated partially coherent vortex beams. , 2018, , .		0
49	Generation of partially coherent Ince-Gaussian beams. , 2019, , .		0