

Nirmal K Viswanathan

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8707608/publications.pdf>

Version: 2024-02-01

93
papers

2,263
citations

304743

22
h-index

223800

46
g-index

94
all docs

94
docs citations

94
times ranked

1652
citing authors

#	ARTICLE	IF	CITATIONS
1	Surface relief structures on azo polymer films. <i>Journal of Materials Chemistry</i> , 1999, 9, 1941-1955.	6.7	712
2	Photofabrication of Surface Relief Grating on Films of Azobenzene Polymer with Different Dye Functionalization. <i>Macromolecules</i> , 2000, 33, 4220-4225.	4.8	158
3	A Detailed Investigation of the Polarization-Dependent Surface-Relief-Grating Formation Process on Azo Polymer Films. <i>Japanese Journal of Applied Physics</i> , 1999, 38, 5928-5937.	1.5	149
4	Spin-Hall effect and circular birefringence of a uniaxial crystal plate. <i>Optica</i> , 2016, 3, 1039.	9.3	110
5	Surface-Initiated Mechanism for the Formation of Relief Gratings on Azo-Polymer Films. <i>Journal of Physical Chemistry B</i> , 1998, 102, 6064-6070.	2.6	90
6	Azo Polymer Multilayer Films by Electrostatic Self-Assembly and Layer-by-Layer Post Azo Functionalization. <i>Macromolecules</i> , 2000, 33, 6534-6540.	4.8	90
7	Generation of optical vector beams using a two-mode fiber. <i>Optics Letters</i> , 2009, 34, 1189.	3.3	74
8	Generation of isolated asymmetric umbilics in light's polarization. <i>Physical Review A</i> , 2014, 89, .	2.5	53
9	Manifestation of the Gouy phase in vector-vortex beams. <i>Optics Letters</i> , 2012, 37, 2667.	3.3	46
10	Spin-Hall effect of light at a tilted polarizer. <i>Optics Letters</i> , 2019, 44, 4781.	3.3	41
11	Switchable vector vortex beam generation using an optical fiber. <i>Optics Communications</i> , 2010, 283, 861-864.	2.1	40
12	Spin-orbit beams for optical chirality measurement. <i>Applied Physics Letters</i> , 2018, 112, .	3.3	40
13	Topological structures in vector-vortex beam fields. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2014, 31, A40.	2.1	32
14	Topological structures in the Poynting vector field: an experimental realization. <i>Optics Letters</i> , 2013, 38, 3886.	3.3	29
15	Generation and decomposition of scalar and vector modes carrying orbital angular momentum: a review. <i>Optical Engineering</i> , 2019, 59, 1.	1.0	29
16	Direct patterning of vortex generators on a fiber tip using a focused ion beam. <i>Optics Letters</i> , 2016, 41, 2133.	3.3	28
17	Systematic study on photofabrication of surface relief grating on high-tg azobenzene polymers. <i>Synthetic Metals</i> , 1999, 102, 1435-1436.	3.9	27
18	Ultrashort vortex from a Gaussian pulse – An achromatic-interferometric approach. <i>Scientific Reports</i> , 2017, 7, 2395.	3.3	25

#	ARTICLE	IF	CITATIONS
19	Formation and morphological transformation of polarization singularities: hunting the monster. <i>Journal of Optics (United Kingdom)</i> , 2013, 15, 044027.	2.2	24
20	Detection of phase transitions from the study of whispering gallery mode resonance in liquid crystal droplets. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	24
21	Polarization singularities in the two-mode optical fiber output. <i>Applied Optics</i> , 2011, 50, E131.	2.1	23
22	Visible–Near-Infrared Range Whispering Gallery Resonance from Photonic $\frac{1}{4}$ -Sphere Cavities Self-Assembled from a Blend of Polystyrene and Poly[4,7-bis(3-octylthiophene-2-yl)benzothiadiazole-2,6-bis(pyrazolyl)pyridine] Coordinated to $Tb(acac)_3$. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 952-958.	8.0	23
23	Polarimetric measurement method to calculate optical beam shifts. <i>Optics Letters</i> , 2014, 39, 4388.	3.3	22
24	Holographic fabrication of polarization selective diffractive optical elements on azopolymer film. <i>Polymers for Advanced Technologies</i> , 2000, 11, 570-574.	3.2	19
25	Generation of tunable chain of three-dimensional optical bottle beams via focused multi-ring hollow Gaussian beam. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2010, 27, 2394.	1.5	19
26	Spectral anomalies due to temporal correlation in a white-light interferometer. <i>Optics Letters</i> , 2007, 32, 2279.	3.3	18
27	Nanodisplacement measurement using spectral shifts in a white-light interferometer. <i>Applied Optics</i> , 2008, 47, 6334.	2.1	17
28	Generation of spirally polarized propagation-invariant beam using fiber microaxicon. <i>Optics Letters</i> , 2011, 36, 3906.	3.3	17
29	Generation of singular optical beams from fundamental Gaussian beam using Sagnac interferometer. <i>Journal of Optics (United Kingdom)</i> , 2016, 18, 095601.	2.2	17
30	Spectral and temporal evolutions of ultrashort pulses diffracted through a slit near phase singularities. <i>Applied Physics Letters</i> , 2006, 89, 041119.	3.3	14
31	Isogyres – Manifestation of Spin-orbit interaction in uniaxial crystal: A closed-fringe Fourier analysis of conoscopic interference. <i>Scientific Reports</i> , 2016, 6, 33141.	3.3	14
32	Generation of vector beams using a double-wedge depolarizer: Non-quantum entanglement. <i>Optics and Lasers in Engineering</i> , 2016, 82, 135-140.	3.8	13
33	Generation of optical vortex dipole from superposition of two transversely scaled Gaussian beams. <i>Applied Optics</i> , 2016, 55, B91.	1.8	12
34	INVESTIGATION OF BIREFRINGENCE AND SURFACE RELIEF GRATING FORMATION IN AZOPOLYMER FILMS. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2001, 38, 1445-1462.	2.2	11
35	Plasmon-mediated vectorial topological dipole: formation and annihilation. <i>Optics Letters</i> , 2012, 37, 4233.	3.3	11
36	The Pancharatnam–Berry phase in polarization singular beams. <i>Journal of Optics (United Kingdom)</i> , 2013, 15, 044026.	2.2	11

#	ARTICLE	IF	CITATIONS
37	All-optical thermo-plasmonic device. Applied Optics, 2011, 50, 5966.	2.1	10
38	Photo-fabrication of electroactive polymers for photonics. Synthetic Metals, 1999, 102, 893-896.	3.9	9
39	Dynamic evolution of transverse energy flow in focused asymmetric optical vector-vortex beams. Optics Communications, 2012, 285, 4866-4873.	2.1	9
40	A study of geometric phase topology using Fourier transform method. Journal of Optics (United Kingdom), 2019, 21, 084002.	2.2	9
41	Simultaneous weak measurement of angular and spatial Goos-Hänchen and Imbert-Fedorov shifts. Journal of Optics (United Kingdom), 2017, 19, 105611.	2.2	9
42	Observation of diffractive-correction and spin-orbit interaction induced effects around the Brewster angle. Journal of Optics (United Kingdom), 2019, 21, 084002.	2.2	9
43	Polarization singularities and fiber modal decomposition. , 2013, , .		8
44	Polarization Dependent Holographic Write, Read and Erasure of Surface Relief Gratings on Azopolymer Films. , 2000, , 421-436.		7
45	Accelerated-Aging Studies of Chirped Bragg Gratings Written in Deuterium-Loaded Germano-Silicate Fibers. Journal of Lightwave Technology, 2004, 22, 1990-2000.	4.6	7
46	Probing Proximity-Tailored High Spin-Orbit Coupling in 2D Materials. Advanced Quantum Technologies, 2020, 3, 2000042.	3.9	7
47	On-axis time-resolved spatial characterization of shock-induced refractive fringes in liquid water. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 2206.	2.1	6
48	Direct and reciprocal spin-orbit interaction effects in a graded-index medium. OSA Continuum, 2019, 2, 1576.	1.8	6
49	Predicting thermal stability of fibre Bragg gratings after isothermal annealing within isochronal annealing. Electronics Letters, 2007, 43, 1341.	1.0	5
50	Field-controllable Spin-Hall Effect of Light in Optical Crystals: A Conoscopic Mueller Matrix Analysis. Scientific Reports, 2018, 8, 2002.	3.3	5
51	Evolution of phase singularities from fork-shaped phase grating in the near-field. Journal of Optics (United Kingdom), 2018, 20, 075604.	2.2	5
52	Study of fractional optical vortex beam in the near-field. Optics Communications, 2020, 475, 126268.	2.1	5
53	Generalized matrix transformation formalism for reflection and transmission of complex optical waves at a plane dielectric interface. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2020, 37, 1971.	1.5	5
54	Is Monstar topologically the same as lemon?. Proceedings of SPIE, 2015, , .	0.8	4

#	ARTICLE	IF	CITATIONS
55	Effect of residual phase gradients in optical null interference. Optics Letters, 2016, 41, 92.	3.3	4
56	Amplified measurement of weak optical activity using a spin-phase-gradient beam. Optics Letters, 2018, 43, 4337.	3.3	4
57	Generic optical singularities in Brewster-reflected postparaxial beam fields. Physical Review A, 2021, 103, .	2.5	4
58	Photoerasure of ultraviolet-induced birefringence and polarization-mode dispersion of chirped fiber Bragg gratings. Optics Letters, 2004, 29, 2470.	3.3	3
59	Spectrally resolved phase-shifting interferometry for accurate group-velocity dispersion measurements. Optics Letters, 2006, 31, 3098.	3.3	3
60	Effect of input spectrum on the spectral switch characteristics in a white-light Michelson interferometer. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2009, 26, 2592.	1.5	3
61	Spin-orbit coupling mediated transverse spin mode rotation in a uniaxial crystal. Optics Letters, 2022, 47, 3768.	3.3	3
62	Photoinduced fabrication of complex surface relief structures on azobenzene functionalized polymers. Bulletin of Materials Science, 1999, 22, 443-445.	1.7	2
63	Rotational Doppler-effect due to selective excitation of vector-vortex field in optical fiber. Optics Express, 2011, 19, 448.	3.4	2
64	Wavelength Dependence of the Polarization Singularities in a Two-Mode Optical Fiber. International Journal of Optics, 2012, 2012, 1-7.	1.4	2
65	Geometrical interpretation of quantum weak measurement. , 2017, , .		2
66	Measuring correlations in non-separable vector beams using projective measurements. Optics Communications, 2017, 399, 45-51.	2.1	2
67	Geometric phase topology in weak measurement. Journal of Optics (United Kingdom), 2017, 19, 125401.	2.2	2
68	Chiral dynamics of exceptional points in weakly absorbing biaxial crystal. Optics Letters, 2018, 43, 3538.	3.3	2
69	Geometric phase due to orbit-orbit interaction: rotating LP11 modes in a two-mode fiber. Journal of Optics (United Kingdom), 2017, 19, 105607.	2.2	2
70	Correction to spatial mode transformation in a modified interferometer. , 2020, , .		2
71	Enhancement of weak spin-Hall shift using higher-order helical-wavefront beams. OSA Continuum, 2018, 1, 872.	1.8	2
72	Wave dislocation line threaded polarization interferometer. Optics Letters, 2022, 47, 770.	3.3	2

#	ARTICLE	IF	CITATIONS
73	Exploring topological optical features due to twisted elliptical birefringent slab. , 2022, , .		2
74	Generic dark hollow beams using negative cones chemically etched in fiber tips. , 2010, , .		1
75	Experimental investigation of link between growth and decay of fiber Bragg gratings. Applied Optics, 2011, 50, 4042.	2.1	1
76	Measurement of Goos-Hänchen shift using polarimetry. , 2013, , .		1
77	Polarimetric measurement of optically perturbed surface plasmonic field. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 806.	2.1	1
78	Overhead projector transparency sheets as inexpensive wave plates: A Mueller matrix analysis. , 2015, , .		1
79	Ultra-sensitive single-beam atom-optical magnetometer using weak measurement method. AIP Advances, 2019, 9, 065113.	1.3	1
80	Observation of Polarization Singularities in a Brewster-Reflected Paraxial Beam. , 2020, , .		1
81	Optical bandgaps, level crossings and Berry phase in a rotating Sagnac Interferometer. , 2021, , .		1
82	Rotational frequency shift in cylindrical vector beam due to skew rays in few-mode optical fibers. , 2010, , .		0
83	Spectral correlation of refocused collinear filaments using femtosecond pulses. , 2011, , .		0
84	Topological optics. , 2013, , .		0
85	Topological aspects of polarization structured beams. , 2014, , .		0
86	Residual phase gradients in optical null interference sensing rotating optical field in a nulling Sagnac interferometer. , 2015, , .		0
87	Spatially varying polarization singular pattern: degree of coherence. , 2015, , .		0
88	Parallel transport of fiber mode structure: orbit-orbit interaction. Proceedings of SPIE, 2017, , .	0.8	0
89	Back Cover: Probing Proximityâ€™Tailored High Spinâ€™Orbit Coupling in 2D Materials (Adv. Quantum) Tj ETQq1 1 0,784314 rgBT /Overlo 3.9 8		0
90	Plasmon-mediated Vectorial Topological Dipole. , 2012, , .		0

#	ARTICLE	IF	CITATIONS
91	Evolution of Polarization Singularities in Few-mode Fiber. , 2012, , .		0
92	Poynting Vector of Complex Optical Fields. , 2013, , .		0
93	Berry phase with tunable topological charge in Sagnac interferometer. Journal of Optics (United Tj ETQq1 1 0.784314 rgBT /Overlock	2.2	0