

Nirmal K Viswanathan

List of Publications by Year in descending order

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Version: 2024-02-01

93
papers

2,263
citations

304743

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223800

46
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94
all docs

94
docs citations

94
times ranked

1652
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Wave dislocation line threaded polarization interferometer. Optics Letters, 2022, 47, 770. | 3.3 | 2 |
| 2 | Berry phase with tunable topological charge in Sagnac interferometer. Journal of Optics (United Kingdom), 2022, 22, 012202. | 2.2 | 0 |
| 3 | Exploring topological optical features due to twisted elliptical birefringent slab. , 2022, , . | | 2 |
| 4 | Spin-orbit coupling mediated transverse spin mode rotation in a uniaxial crystal. Optics Letters, 2022, 47, 3768. | 3.3 | 3 |
| 5 | Generic optical singularities in Brewster-reflected postparaxial beam fields. Physical Review A, 2021, 103, . | 2.5 | 4 |
| 6 | Optical bandgaps, level crossings and Berry phase in a rotating Sagnac Interferometer. , 2021, , . | | 1 |
| 7 | Back Cover: Probing Proximity-Tailored High Spin-Orbit Coupling in 2D Materials (Adv. Quantum Technologies) Tj ETQq1 1 0,784314 rgBT /Overlock | 3.9 | 9 |
| 8 | Study of fractional optical vortex beam in the near-field. Optics Communications, 2020, 475, 126268. | 2.1 | 5 |
| 9 | Probing Proximity-Tailored High Spin-Orbit Coupling in 2D Materials. Advanced Quantum Technologies, 2020, 3, 2000042. | 3.9 | 7 |
| 10 | Correction to spatial mode transformation in a modified interferometer. , 2020, , . | | 2 |
| 11 | 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 |
| 12 | Observation of Polarization Singularities in a Brewster-Reflected Paraxial Beam. , 2020, , . | | 1 |
| 13 | 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 |
| 14 | Ultra-sensitive single-beam atom-optical magnetometer using weak measurement method. AIP Advances, 2019, 9, 065113. | 1.3 | 1 |
| 15 | Generation and decomposition of scalar and vector modes carrying orbital angular momentum: a review. Optical Engineering, 2019, 59, 1. | 1.0 | 29 |
| 16 | Spin-Hall effect of light at a tilted polarizer. Optics Letters, 2019, 44, 4781. | 3.3 | 41 |
| 17 | Direct and reciprocal spin-orbit interaction effects in a graded-index medium. OSA Continuum, 2019, 2, 1576. | 1.8 | 6 |
| 18 | Field-controllable Spin-Hall Effect of Light in Optical Crystals: A Conoscopic Mueller Matrix Analysis. Scientific Reports, 2018, 8, 2002. | 3.3 | 5 |

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| 19 | Spin-orbit beams for optical chirality measurement. Applied Physics Letters, 2018, 112, . | 3.3 | 40 |
| 20 | Amplified measurement of weak optical activity using a spin-phase-gradient beam. Optics Letters, 2018, 43, 4337. | 3.3 | 4 |
| 21 | Evolution of phase singularities from fork-shaped phase grating in the near-field. Journal of Optics (United Kingdom), 2018, 20, 075604. | 2.2 | 5 |
| 22 | Chiral dynamics of exceptional points in weakly absorbing biaxial crystal. Optics Letters, 2018, 43, 3538. | 3.3 | 2 |
| 23 | Enhancement of weak spin-Hall shift using higher-order helical-wavefront beams. OSA Continuum, 2018, 1, 872. | 1.8 | 2 |
| 24 | Geometrical interpretation of quantum weak measurement. , 2017, , . | | 2 |
| 25 | Parallel transport of fiber mode structure: orbit-orbit interaction. Proceedings of SPIE, 2017, , . | 0.8 | 0 |
| 26 | Measuring correlations in non-separable vector beams using projective measurements. Optics Communications, 2017, 399, 45-51. | 2.1 | 2 |
| 27 | Simultaneous weak measurement of angular and spatial Goos-Hänchen and Imbert-Fedorov shifts. Journal of Optics (United Kingdom), 2017, 19, 105611. | 2.2 | 9 |
| 28 | Geometric phase topology in weak measurement. Journal of Optics (United Kingdom), 2017, 19, 125401. | 2.2 | 2 |
| 29 | Ultrashort vortex from a Gaussian pulse – An achromatic-interferometric approach. Scientific Reports, 2017, 7, 2395. | 3.3 | 25 |
| 30 | 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 |
| 31 | Spin-Hall effect and circular birefringence of a uniaxial crystal plate. Optica, 2016, 3, 1039. | 9.3 | 110 |
| 32 | Generation of vector beams using a double-wedge depolarizer: Non-quantum entanglement. Optics and Lasers in Engineering, 2016, 82, 135-140. | 3.8 | 13 |
| 33 | A study of geometric phase topology using Fourier transform method. Journal of Optics (United Kingdom), 2016, 18, 095601. | 2.2 | 9 |
| 34 | Direct patterning of vortex generators on a fiber tip using a focused ion beam. Optics Letters, 2016, 41, 2133. | 3.3 | 28 |
| 35 | Generation of singular optical beams from fundamental Gaussian beam using Sagnac interferometer. Journal of Optics (United Kingdom), 2016, 18, 095601. | 2.2 | 17 |
| 36 | Isogyres – Manifestation of Spin-orbit interaction in uniaxial crystal: A closed-fringe Fourier analysis of conoscopic interference. Scientific Reports, 2016, 6, 33141. | 3.3 | 14 |

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| 37 | Generation of optical vortex dipole from superposition of two transversely scaled Gaussian beams. Applied Optics, 2016, 55, B91. | 1.8 | 12 |
| 38 | Effect of residual phase gradients in optical null interference. Optics Letters, 2016, 41, 92. | 3.3 | 4 |
| 39 | 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 $Tb(acac)_3$. ACS Applied Materials & Interfaces. 2016, 8, 952-958. | 8.0 | 23 |
| 40 | Overhead projector transparency sheets as inexpensive wave plates: A Mueller matrix analysis. , 2015, , . | | 1 |
| 41 | Residual phase gradients in optical null interference sensing rotating optical field in a nulling Sagnac interferometer. , 2015, , . | | 0 |
| 42 | Detection of phase transitions from the study of whispering gallery mode resonance in liquid crystal droplets. Applied Physics Letters, 2015, 106, . | 3.3 | 24 |
| 43 | Is Monstar topologically the same as lemon?. Proceedings of SPIE, 2015, , . | 0.8 | 4 |
| 44 | Spatially varying polarization singular pattern: degree of coherence. , 2015, , . | | 0 |
| 45 | Polarimetric measurement method to calculate optical beam shifts. Optics Letters, 2014, 39, 4388. | 3.3 | 22 |
| 46 | Generation of isolated asymmetric umbilics in light's polarization. Physical Review A, 2014, 89, . | 2.5 | 53 |
| 47 | Topological structures in vector-vortex beam fields. Journal of the Optical Society of America B: Optical Physics, 2014, 31, A40. | 2.1 | 32 |
| 48 | Topological aspects of polarization structured beams. , 2014, , . | | 0 |
| 49 | Formation and morphological transformation of polarization singularities: hunting the monstar. Journal of Optics (United Kingdom), 2013, 15, 044027. | 2.2 | 24 |
| 50 | The Pancharatnam-Berry phase in polarization singular beams. Journal of Optics (United Kingdom), 2013, 15, 044026. | 2.2 | 11 |
| 51 | Measurement of Goos-Hänchen shift using polarimetry. , 2013, , . | | 1 |
| 52 | Topological optics. , 2013, , . | | 0 |
| 53 | Topological structures in the Poynting vector field: an experimental realization. Optics Letters, 2013, 38, 3886. | 3.3 | 29 |
| 54 | Polarimetric measurement of optically perturbed surface plasmonic field. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 806. | 2.1 | 1 |

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| 55 | 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 |
| 56 | Polarization singularities and fiber modal decomposition. , 2013, , . | | 8 |
| 57 | Poynting Vector of Complex Optical Fields. , 2013, , . | | 0 |
| 58 | Manifestation of the Gouy phase in vector-vortex beams. Optics Letters, 2012, 37, 2667. | 3.3 | 46 |
| 59 | Plasmon-mediated vectorial topological dipole: formation and annihilation. Optics Letters, 2012, 37, 4233. | 3.3 | 11 |
| 60 | Dynamic evolution of transverse energy flow in focused asymmetric optical vector-vortex beams. Optics Communications, 2012, 285, 4866-4873. | 2.1 | 9 |
| 61 | Wavelength Dependence of the Polarization Singularities in a Two-Mode Optical Fiber. International Journal of Optics, 2012, 2012, 1-7. | 1.4 | 2 |
| 62 | Plasmon-mediated Vectorial Topological Dipole. , 2012, , . | | 0 |
| 63 | Evolution of Polarization Singularities in Few-mode Fiber. , 2012, , . | | 0 |
| 64 | Experimental investigation of link between growth and decay of fiber Bragg gratings. Applied Optics, 2011, 50, 4042. | 2.1 | 1 |
| 65 | Polarization singularities in the two-mode optical fiber output. Applied Optics, 2011, 50, E131. | 2.1 | 23 |
| 66 | All-optical thermo-plasmonic device. Applied Optics, 2011, 50, 5966. | 2.1 | 10 |
| 67 | Rotational Doppler-effect due to selective excitation of vector-vortex field in optical fiber. Optics Express, 2011, 19, 448. | 3.4 | 2 |
| 68 | Generation of spirally polarized propagation-invariant beam using fiber microaxicon. Optics Letters, 2011, 36, 3906. | 3.3 | 17 |
| 69 | Spectral correlation of refocused collinear filaments using femtosecond pulses. , 2011, , . | | 0 |
| 70 | Switchable vector vortex beam generation using an optical fiber. Optics Communications, 2010, 283, 861-864. | 2.1 | 40 |
| 71 | Rotational frequency shift in cylindrical vector beam due to skew rays in few-mode optical fibers. , 2010, , . | | 0 |
| 72 | Generation of tunable chain of three-dimensional optical bottle beams via focused multi-ring hollow Gaussian beam. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2010, 27, 2394. | 1.5 | 19 |

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| 73 | Generic dark hollow beams using negative cones chemically etched in fiber tips. , 2010, , . | | 1 |
| 74 | Generation of optical vector beams using a two-mode fiber. Optics Letters, 2009, 34, 1189. | 3.3 | 74 |
| 75 | 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 |
| 76 | Nanodisplacement measurement using spectral shifts in a white-light interferometer. Applied Optics, 2008, 47, 6334. | 2.1 | 17 |
| 77 | Predicting thermal stability of fibre Bragg gratings " isothermal annealing within isochronal annealing. Electronics Letters, 2007, 43, 1341. | 1.0 | 5 |
| 78 | Spectral anomalies due to temporal correlation in a white-light interferometer. Optics Letters, 2007, 32, 2279. | 3.3 | 18 |
| 79 | Spectrally resolved phase-shifting interferometry for accurate group-velocity dispersion measurements. Optics Letters, 2006, 31, 3098. | 3.3 | 3 |
| 80 | Spectral and temporal evolutions of ultrashort pulses diffracted through a slit near phase singularities. Applied Physics Letters, 2006, 89, 041119. | 3.3 | 14 |
| 81 | 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 |
| 82 | Photoerasure of ultraviolet-induced birefringence and polarization-mode dispersion of chirped fiber Bragg gratings. Optics Letters, 2004, 29, 2470. | 3.3 | 3 |
| 83 | INVESTIGATION OF BIREFRINGENCE AND SURFACE RELIEF GRATING FORMATION IN AZOPOLYMER FILMS. Journal of Macromolecular Science - Pure and Applied Chemistry, 2001, 38, 1445-1462. | 2.2 | 11 |
| 84 | Holographic fabrication of polarization selective diffractive optical elements on azopolymer film. Polymers for Advanced Technologies, 2000, 11, 570-574. | 3.2 | 19 |
| 85 | Azo Polymer Multilayer Films by Electrostatic Self-Assembly and Layer-by-Layer Post Azo Functionalization. Macromolecules, 2000, 33, 6534-6540. | 4.8 | 90 |
| 86 | Photofabrication of Surface Relief Grating on Films of Azobenzene Polymer with Different Dye Functionalization. Macromolecules, 2000, 33, 4220-4225. | 4.8 | 158 |
| 87 | Polarization Dependent Holographic Write, Read and Erasure of Surface Relief Gratings on Azopolymer Films. , 2000, , 421-436. | | 7 |
| 88 | Photoinduced fabrication of complex surface relief structures on azobenzene functionalized polymers. Bulletin of Materials Science, 1999, 22, 443-445. | 1.7 | 2 |
| 89 | Photo-fabrication of electroactive polymers for photonics. Synthetic Metals, 1999, 102, 893-896. | 3.9 | 9 |
| 90 | Systematic study on photofabrication of surface relief grating on high-tg azobenzene polymers. Synthetic Metals, 1999, 102, 1435-1436. | 3.9 | 27 |

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| 91 | A Detailed Investigation of the Polarization-Dependent Surface-Relief-Grating Formation Process on Azo Polymer Films. Japanese Journal of Applied Physics, 1999, 38, 5928-5937. | 1.5 | 149 |
| 92 | Surface relief structures on azo polymer films. Journal of Materials Chemistry, 1999, 9, 1941-1955. | 6.7 | 712 |
| 93 | Surface-Initiated Mechanism for the Formation of Relief Gratings on Azo-Polymer Films. Journal of Physical Chemistry B, 1998, 102, 6064-6070. | 2.6 | 90 |