

Nirmalya Ghosh

List of Publications by Year in descending order

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Version: 2024-02-01

59
papers

2,118
citations

279798

23
h-index

233421

45
g-index

60
all docs

60
docs citations

60
times ranked

1180
citing authors

#	ARTICLE	IF	CITATIONS
1	Interferometric weak value of polarization observable and differential Jones matrix algebra. Journal of Optics (United Kingdom), 2022, 24, 034009.	2.2	1
2	Probing the rotational spin-Hall effect in a structured Gaussian beam. Physical Review A, 2022, 105, .	2.5	11
3	Tunable giant two-dimensional optical beam shift from a tilted linear polarizer. Physical Review A, 2022, 105, .	2.5	1
4	Towards the development of new generation spin-orbit photonic techniques. Journal of Optics (United Kingdom), 2022, 24, 054006.	2.2	1
5	Manipulating the transverse spin angular momentum and Belinfante momentum of spin-polarized light by a tilted stratified medium in optical tweezers. Physical Review A, 2022, 105, .	2.5	3
6	Generalized framework of weak-value amplification in path interference of polarized light for the enhancement of all possible polarization anisotropy effects. Physical Review A, 2021, 103, .	2.5	3
7	Role of avoided crossing and weak value amplification on enhanced Faraday effect in magnetoplasmonic systems. Communications Physics, 2021, 4, .	5.3	6
8	Experimental observation of the orbital Hall effect of light through pure orbit-orbit interaction for randomly and radially polarized vortex beams. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 2180.	2.1	7
9	Autonomous self-repair in piezoelectric molecular crystals. Science, 2021, 373, 321-327.	12.6	72
10	Diattenuation and retardance signature of plasmonic gold nanorods in turbid media revealed by Mueller matrix polarimetry. Scientific Reports, 2021, 11, 20017.	3.3	3
11	Natural weak value amplification in Fano resonance and giant Faraday rotation in magneto-plasmonic crystal. Scientific Reports, 2020, 10, 11464.	3.3	8
12	Direct observation of the effects of spin dependent momentum of light in optical tweezers. APL Photonics, 2020, 5, .	5.7	11
13	Prediction of the Sun's Coronal Magnetic Field and Forward-modeled Polarization Characteristics for the 2019 July 2 Total Solar Eclipse. Astrophysical Journal, 2020, 890, 37.	4.5	4
14	Single-shot measurement of the space-varying polarization state of light through interferometric quantification of the geometric phase. Physical Review A, 2020, 101, .	2.5	5
15	Weak Measurements in Nano-optics. Current Nanomaterials, 2020, 5, 191-213.	0.4	3
16	â€œDialâ€•Emission from a Unique Flexible Material with Polarization Tuneable Spectral Intensity. Chemistry - A European Journal, 2019, 25, 13514-13522.	3.3	6
17	Controlling Fano resonances using the geometrical phase of light in spatially tailored waveguided plasmonic crystals. Physical Review A, 2019, 100, .	2.5	2
18	Experimental probe of weak-value amplification and geometric phase through the complex zeros of the response function. Physical Review A, 2019, 99, .	2.5	8

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19	Mueller matrix spectroscopy of fano resonance in plasmonic oligomers. Optics Communications, 2019, 432, 84-90.	2.1	5
20	Transverse spin in the scattering of focused radially and azimuthally polarized vector beams. Physical Review A, 2018, 97, .	2.5	14
21	Submicron scale tissue multifractal anisotropy in polarized laser light scattering. Laser Physics Letters, 2018, 15, 035601.	1.4	9
22	Effects of mode mixing and avoided crossings on the transverse spin in a metal-dielectric-metal sphere. Journal of Optics (United Kingdom), 2018, 20, 025402.	2.2	8
23	Quantitative assessment of submicron scale anisotropy in tissue multifractality by scattering Mueller matrix in the framework of Born approximation. Optics Communications, 2018, 413, 172-178.	2.1	26
24	Studying the Crystallization of Polyoxometalates from Colloidal Softoxometalates. Crystal Growth and Design, 2018, 18, 4068-4075.	3.0	16
25	Polarization-Tailored Fano Interference in Plasmonic Crystals: A Mueller Matrix Model of Anisotropic Fano Resonance. ACS Nano, 2017, 11, 1641-1648.	14.6	22
26	Transverse spin and transverse momentum in scattering of plane waves. Optics Letters, 2016, 41, 4499.	3.3	29
27	Tunable Spin dependent beam shift by simultaneously tailoring geometric and dynamical phases of light in inhomogeneous anisotropic medium. Scientific Reports, 2016, 6, 39582.	3.3	7
28	Spatially-offset fluorescence spectroscopy (SOFS) using ring illumination and point collection for sub-surface measurements in layered tissue. Biomedical Engineering Letters, 2016, 6, 265-270.	4.1	0
29	Mueller matrix approach for probing multifractality in the underlying anisotropic connective tissue. Journal of Biomedical Optics, 2016, 21, 095004.	2.6	8
30	Complete polarization characterization of single plasmonic nanoparticle enabled by a novel Dark-field Mueller matrix spectroscopy system. Scientific Reports, 2016, 6, 26466.	3.3	27
31	Covariance weighted distance metrics for optical diagnosis of cancer. , 2016, , .		1
32	Visualizing Phase Transition Behavior of Dilute Stimuli Responsive Polymer Solutions via Mueller Matrix Polarimetry. Analytical Chemistry, 2015, 87, 9120-9125.	6.5	8
33	Manifestations of geometric phase and enhanced spin Hall shifts in an optical trap. New Journal of Physics, 2014, 16, 083037.	2.9	31
34	Fluorescent Mueller matrix analysis of a highly scattering turbid media. Applied Physics Letters, 2014, 104, .	3.3	10
35	Controlled transportation of mesoscopic particles by enhanced spin-orbit interaction of light in an optical trap. Physical Review A, 2013, 87, .	2.5	28
36	Quantitative fluorescence and elastic scattering tissue polarimetry using an Eigenvalue calibrated spectroscopic Mueller matrix system. Optics Express, 2013, 21, 15475.	3.4	52

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37	Probing the fractal pattern and organization of <i>Bacillus thuringiensis</i> bacteria colonies growing under different conditions using quantitative spectral light scattering polarimetry. <i>Journal of Biomedical Optics</i> , 2013, 18, 035003.	2.6	9
38	Quantitative spectral light scattering polarimetry for monitoring fractal growth pattern of <i>Bacillus thuringiensis</i> bacterial colonies. <i>Proceedings of SPIE</i> , 2013, , .	0.8	0
39	Quantitative Polarimetry for Tissue Characterization and Diagnosis. <i>Series in Optics and Optoelectronics</i> , 2013, , 73-108.	0.0	29
40	Mueller matrix polarimetry in fluorescence scattering from biological tissues. , 2013, , .		2
41	Comparative study of differential matrix and extended polar decomposition formalisms for polarimetric characterization of complex tissue-like turbid media. <i>Journal of Biomedical Optics</i> , 2012, 17, 105006.	2.6	55
42	Swelling-Induced Optical Anisotropy of Thermoresponsive Hydrogels Based on Poly(2-(2-methoxyethoxy)ethyl methacrylate): Deswelling Kinetics Probed by Quantitative Mueller Matrix Polarimetry. <i>Journal of Physical Chemistry B</i> , 2012, 116, 13913-13921.	2.6	20
43	Quantitative polarimetry of plasmon resonant spheroidal metal nanoparticles: A Mueller matrix decomposition study. <i>Optics Communications</i> , 2012, 285, 1599-1607.	2.1	16
44	Tissue polarimetry: concepts, challenges, applications, and outlook. <i>Journal of Biomedical Optics</i> , 2011, 16, 110801.	2.6	546
45	Mueller matrix polarimetry for the characterization of complex random medium like biological tissues. <i>Pramana - Journal of Physics</i> , 2010, 75, 1071-1086.	1.8	24
46	Influence of the order of the constituent basis matrices on the Mueller matrix decomposition-derived polarization parameters in complex turbid media such as biological tissues. <i>Optics Communications</i> , 2010, 283, 1200-1208.	2.1	74
47	Polarization birefringence measurements for characterizing the myocardium, including healthy, infarcted, and stem-cell-regenerated tissues. <i>Journal of Biomedical Optics</i> , 2010, 15, 047009.	2.6	80
48	COMPARISON OF OPTICAL POLARIMETRY AND DIFFUSION TENSOR MR IMAGING FOR ASSESSING MYOCARDIAL ANISOTROPY. <i>Journal of Innovative Optical Health Sciences</i> , 2010, 03, 109-121.	1.0	17
49	Polarimetry-based method to extract geometry-independent metrics of tissue anisotropy. <i>Optics Letters</i> , 2010, 35, 2570.	3.3	39
50	Polarized Light Assessment of Complex Turbid Media Such as Biological Tissues Using Mueller Matrix Decomposition. <i>Series in Medical Physics and Biomedical Engineering</i> , 2010, , 253-282.	0.1	40
51	Mueller matrix decomposition for polarized light assessment of biological tissues. <i>Journal of Biophotonics</i> , 2009, 2, 145-156.	2.3	145
52	Polarized diffuse reflectance measurements on cancerous and noncancerous tissues. <i>Journal of Biophotonics</i> , 2009, 2, 581-587.	2.3	35
53	Proof-of-principle demonstration of a Mueller matrix decomposition method for polarized light tissue characterization in vivo. <i>Journal of Biomedical Optics</i> , 2009, 14, 014029.	2.6	60
54	Polarimetry in turbid, birefringent, optically active media: A Monte Carlo study of Mueller matrix decomposition in the backscattering geometry. <i>Journal of Applied Physics</i> , 2009, 105, .	2.5	72

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55	Mueller matrix decomposition for extraction of individual polarization parameters from complex turbid media exhibiting multiple scattering, optical activity, and linear birefringence. Journal of Biomedical Optics, 2008, 13, 044036.	2.6	204
56	Anomalous behavior of depolarization of light in a turbid medium. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 354, 236-242.	2.1	27
57	Depolarization of light in a multiply scattering medium: Effect of the refractive index of a scatterer. Physical Review E, 2004, 70, 066607.	2.1	39
58	Recovery of turbidity free fluorescence from measured fluorescence: an experimental approach. Optics Express, 2003, 11, 3320.	3.4	59
59	Wave Optics. , 0, , .		32