

Surendra Singh

List of Publications by Year in descending order

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131
papers

1,940
citations

218381

26
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276539

41
g-index

132
all docs

132
docs citations

132
times ranked

1085
citing authors

#	ARTICLE	IF	CITATIONS
1	Field statistics in some generalized Jaynes-Cummings models. <i>Physical Review A</i> , 1982, 25, 3206-3216.	1.0	205
2	Photoelectron waiting times and atomic state reduction in resonance fluorescence. <i>Physical Review A</i> , 1989, 39, 1200-1218.	1.0	177
3	Phase and interference properties of optical vortex beams. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2008, 25, 823.	0.8	83
4	Polarization properties of Maxwell-Gaussian laser beams. <i>Physical Review E</i> , 1994, 49, 5778-5786.	0.8	77
5	Photon-counting statistics of the degenerate optical parametric oscillator. <i>Physical Review A</i> , 1989, 40, 5147-5159.	1.0	62
6	Antibunching, sub-poissonian photon statistics and finite bandwidth effects in resonance fluorescence. <i>Optics Communications</i> , 1983, 44, 254-258.	1.0	59
7	Anomalous Dynamical Behavior of Freestanding Graphene Membranes. <i>Physical Review Letters</i> , 2016, 117, 126801.	2.9	59
8	ENHANCEMENT OF ANTIMICROBIAL ACTIVITIES OF NATURALLY OCCURRING PHENOLIC COMPOUNDS BY NANOSCALE DELIVERY AGAINST LISTERIA MONOCYTOGENES, ESCHERICHIA COLI O157:H7 AND SALMONELLA TYPHIMURIUM IN BROTH AND CHICKEN MEAT SYSTEM. <i>Journal of Food Safety</i> , 2011, 31, 462-471.	1.1	57
9	Mode competition in a homogeneously broadened ring laser. <i>Physical Review A</i> , 1979, 20, 2459-2463.	1.0	54
10	Macroscopic Quantum Fluctuations and First-Order Phase Transition in a Laser. <i>Physical Review Letters</i> , 1981, 47, 1892-1895.	2.9	52
11	Statistical properties of single-mode and two-mode ring lasers. <i>Physics Reports</i> , 1984, 108, 217-273.	10.3	51
12	Effect of pump fluctuations on line shapes in coherent anti-Stokes Raman scattering. <i>Physical Review A</i> , 1982, 25, 3195-3205.	1.0	43
13	Relativistic interaction Hamiltonian coupling the angular momentum of light and the electron spin. <i>Physical Review B</i> , 2015, 92, .	1.1	41
14	Quantum theory of a two-mode laser with coupled transitions. <i>Physical Review A</i> , 1980, 21, 281-292.	1.0	38
15	Statistical properties of a laser with multiplicative noise. <i>Optics Letters</i> , 1988, 13, 21.	1.7	35
16	Waiting-time distributions in the photodetection of squeezed light. <i>Physical Review A</i> , 1988, 38, 2423-2430.	1.0	35
17	Correlations, transients, bistability, and phase-transition analogy in two-mode lasers. <i>Physical Review A</i> , 1981, 24, 2050-2074.	1.0	34
18	Effects of multiplicative white noise on laser light fluctuations. <i>Physical Review A</i> , 1988, 38, 238-244.	1.0	33

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19	Resonance fluorescence with squeezed-light excitation. Physical Review A, 1992, 45, 8095-8109.	1.0	32
20	Correlation functions of the two-mode ring laser. Physical Review A, 1979, 19, 2036-2045.	1.0	30
21	Some Recent Development, In the Fundamental Theor of Light. Advances in Atomic, Molecular and Optical Physics, 1990, , 75-142.	2.3	30
22	Predicted Coupling of the Electromagnetic Angular Momentum Density with Magnetic Moments. Physical Review Letters, 2013, 110, 137205.	2.9	30
23	Higher-order sub-Poissonian photon statistics in terms of factorial moments. Journal of the Optical Society of America B: Optical Physics, 2002, 19, 1471.	0.9	29
24	Photon correlation effects in second harmonic generation. Optics Communications, 1992, 90, 111-114.	1.0	27
25	Plasmonic resonances and electromagnetic forces between coupled silver nanowires. Physical Review B, 2005, 72, .	1.1	27
26	Quantum statistics of broadband squeezed light. Optics Letters, 1989, 14, 1110.	1.7	26
27	Laser theory without the rotating-wave approximation. Physical Review A, 1986, 33, 375-381.	1.0	24
28	Observation of the "Brownian motion" of the electric field in a laser. Physical Review A, 1987, 35, 1453-1456.	1.0	24
29	Entanglement, Interference, and Measurement in a Degenerate Parametric Oscillator. Physical Review Letters, 2001, 86, 2770-2773.	2.9	24
30	First-passage-time distributions and switching statistics in a bistable two-mode laser. Physical Review A, 1983, 28, 2318-2328.	1.0	23
31	Scaling behavior of photon number fluctuations at laser threshold. Optics Communications, 1994, 105, 325-329.	1.0	20
32	Fluctuation-induced current from freestanding graphene. Physical Review E, 2020, 102, 042101.	0.8	20
33	Quantum well in a microcavity with injected squeezed vacuum. Physical Review A, 2003, 67, .	1.0	16
34	Second-harmonic generation and photon bunching in multimode laser beams. Physical Review A, 1993, 47, 3259-3263.	1.0	14
35	Frequency dependence of laser light fluctuations. Physical Review A, 1983, 27, 381-391.	1.0	13
36	Decay of an unstable state. Physical Review A, 1985, 31, 888-891.	1.0	13

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37	Intensity correlation functions of the laser with multiplicative white noise. <i>Physical Review A</i> , 1991, 44, 3239-3249.	1.0	13
38	Measurements of Higher Order Photon Bunching of Light Beams. <i>Physical Review Letters</i> , 1996, 76, 1236-1239.	2.9	13
39	Antibunching and photoemission waiting times. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2000, 17, 634.	0.9	13
40	Prediction of novel interface-driven spintronic effects. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 315008.	0.7	13
41	Polarization properties of the Airy beam. <i>Optics Letters</i> , 2015, 40, 4516.	1.7	13
42	Quantum statistical theory of the ring laser. <i>Physical Review A</i> , 1981, 23, 837-852.	1.0	12
43	Measurements of photon statistics in second-harmonic generation. <i>Physical Review A</i> , 1995, 51, 2530-2536.	1.0	12
44	Higher-order nonclassical effects in a parametric oscillator. <i>Physical Review A</i> , 2000, 62, .	1.0	12
45	Polarization of orbital angular momentum carrying laser beams. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2013, 30, 821.	0.8	11
46	Symmetry in the diffraction of beams carrying orbital angular momentum. <i>Physical Review A</i> , 2019, 99, .	1.0	11
47	Enhancement of photon antibunching by passive interferometry. <i>Physical Review A</i> , 1992, 45, 4932-4943.	1.0	10
48	Exact Quantum Distribution for Parametric Oscillators. <i>Physical Review Letters</i> , 1995, 74, 2208-2211.	2.9	10
49	A Light Scattering Study of the Interaction of Fibroblast Growth Factor (FGF) with its Receptor. <i>Biophysical Journal</i> , 2008, 94, L71-L73.	0.2	10
50	Cross-polarization of linearly polarized Hermite-Gauss laser beams. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2012, 29, 579.	0.8	10
51	Bistability and intensity fluctuations in Zeeman lasers and amplifiers. <i>Optics Communications</i> , 1980, 32, 339-344.	1.0	9
52	Coupling of the angular momentum density with magnetic moments explains the intrinsic anomalous Hall effect. <i>Physical Review B</i> , 2013, 88, .	1.1	9
53	Homodyne detection for the enhancement of antibunching. <i>Physical Review A</i> , 1996, 54, 2391-2396.	1.0	8
54	Conditional measurements as probes of quantum dynamics. <i>Physical Review A</i> , 2003, 67, .	1.0	8

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55	Effect of quadratic radial variation of phase on single slit diffraction of Laguerre-Gauss vortex beams. <i>Journal of Modern Optics</i> , 2012, 59, 1232-1242.	0.6	8
56	Nonlinear dynamics of a modulated bidirectional solid-state ring laser. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2006, 23, 1785.	0.9	7
57	Computation of Sommerfeld integrals using tanh transformation. <i>Microwave and Optical Technology Letters</i> , 2003, 37, 177-180.	0.9	6
58	Conditional homodyne detection of light with squeezed quadrature fluctuations. <i>Physical Review A</i> , 2006, 74, .	1.0	6
59	Multiplicative noise-induced probability distributions in three-level atomic optical bistability. <i>Physical Review A</i> , 2009, 79, .	1.0	6
60	Statistical properties of light from optical parametric oscillators. <i>Physical Review A</i> , 2009, 80, .	1.0	6
61	Intensity correlations in a two-mode laser with coupled transitions. <i>Physical Review A</i> , 1981, 23, 2507-2512.	1.0	5
62	Effect of detuning on the fluctuation properties of a laser. <i>Optics Letters</i> , 1982, 7, 99.	1.7	5
63	Inhomogeneously broadened laser with a saturable absorber. <i>Physical Review A</i> , 1987, 35, 429-432.	1.0	5
64	Tricritical behavior in the laser with a saturable absorber. <i>Physical Review Letters</i> , 1990, 64, 741-744.	2.9	5
65	An optical parametric oscillator as a high-flux source of two-mode light for quantum lithography. <i>New Journal of Physics</i> , 2009, 11, 113055.	1.2	5
66	Revisiting galvanomagnetic effects in conducting ferromagnets. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 432201.	0.7	5
67	Method for determining absolute photon numbers in a laser. <i>Journal of the Optical Society of America</i> , 1982, 72, 304.	1.2	4
68	Fluctuations in intracavity second harmonic generation. <i>Optics Communications</i> , 1987, 62, 289-294.	1.0	4
69	Measurements of first-passage-time distributions in laser transients near threshold. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1988, 5, 1011.	0.9	4
70	Nonclassical effects in photon statistics of atomic optical bistability. <i>Physical Review A</i> , 2001, 64, .	1.0	4
71	New relativistic Hamiltonian: the angular magnetoelectric coupling. , 2016, , .		4
72	Role of compensation in electron-phonon scattering in lightly doped semiconductors. <i>Physical Review B</i> , 1979, 19, 1069-1076.	1.1	3

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73	Measurement of two-time correlations in a two-mode ring laser. Optics Communications, 1981, 40, 139-143.	1.0	3
74	An iterative method for solving a large dense matrix in the method of moments solution of an electrostatic problem. Microwave and Optical Technology Letters, 2003, 39, 378-380.	0.9	3
75	Optical Bistability Effects in a Dye Ring Laser. , 1981, , 127-150.		3
76	Polarization properties of Inceâ€“Gaussian laser beams. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2017, 34, 2261.	0.8	3
77	Effect of mode competition on beam divergence in a ring laser. Journal of the Optical Society of America, 1980, 70, 252.	1.2	2
78	Chaos in coherent two-photon processes in a ring cavity. Optics Communications, 1983, 47, 73-76.	1.0	2
79	Measurements of intensity fluctuations in a laser with a saturable absorber. Physical Review A, 2002, 65, .	1.0	2
80	Nonclassicality of light from a degenerate parametric oscillator. Journal of Modern Optics, 2010, 57, 1293-1299.	0.6	2
81	Diffraction of Laguerre-Gauss vortex beams by regular polygons. , 2014, , .		2
82	Degeneracy in the diffraction of orbital angular momentum carrying beams. Optics Letters, 2018, 43, 5833.	1.7	2
83	Magnetic field dependence of the "chemical shift" and the donor-electron radius in the lightly dopedn-type Ge. Physical Review B, 1979, 19, 5433-5438.	1.1	1
84	Resonant Scattering of Phonons by Bound Holes in Gallium Doped Ge and Boron Doped Silicon in the Temperature Range 1 to 5 K. Physica Status Solidi (B): Basic Research, 1980, 98, K101.	0.7	1
85	Low-temperature magneto-phonon conductivity of lightly doped Si. Physical Review B, 1980, 22, 6350-6354.	1.1	1
86	Chemical shift and donor-electron radius for lightly dopedn-Ge. Physical Review B, 1980, 22, 6347-6349.	1.1	1
87	NON-EQUILIBRIUM TRICRITICAL BEHAVIOR IN LASERS. Modern Physics Letters B, 1991, 05, 245-258.	1.0	1
88	Two-photon detection of light from a degenerate parametric oscillator. Optics Communications, 1997, 142, 223-228.	1.0	1
89	Synchronized and unsynchronized chaos in a modulated bidirectional ring laser. Physical Review A, 2007, 75, .	1.0	1
90	Toy model for uncommon spinâ€“orbit-driven spin-torque terms. Journal of Physics Condensed Matter, 2017, 29, 254001.	0.7	1

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91	Diffractals from regular polygon Sierpinski gaskets. , 2017, , .		1
92	A new method for detecting the nonlinearity of the Pancharatnam phase of light. Optics Communications, 2019, 451, 62-66.	1.0	1
93	Singh and Cantrell Reply:. Physical Review Letters, 1996, 77, 4973-4973.	2.9	0
94	On the bichromatic excitation of a two-level atom with squeezed light. European Physical Journal D, 2004, 29, 95-103.	0.6	0
95	Cross-Polarization of Paraxial Maxwell-Gaussian Beams. , 2005, , FWT3.		0
96	A novel technique for computing electromagnetic scattering from wire antennas. Microwave and Optical Technology Letters, 2005, 45, 554-556.	0.9	0
97	Conditional detection of fluctuations in the light form an atom in a high Q-cavity. , 2005, , LTuD5.		0
98	Measurement of Conditional Squeezing for non-Gaussian fields. , 2006, , LTuG3.		0
99	An iterative method for the numerical solution of integral equations using the method of moments. Microwave and Optical Technology Letters, 2006, 48, 118-121.	0.9	0
100	A method to generate a sparse matrix for thin-wire structures using the method of moments. Microwave and Optical Technology Letters, 2006, 48, 243-246.	0.9	0
101	Cross polarization of Maxwell-Gaussian laser beams with orbital and spin angular momentum. , 2007, , CSuA24.		0
102	Vector sequence accelerator for solving problems in computational electromagnetics using the method of moments. Microwave and Optical Technology Letters, 2008, 50, 589-592.	0.9	0
103	Propagation of linearly polarized Laguerre-Gauss vortex beams. , 2011, , .		0
104	Polarization and Propagation Characteristics of Laser Beams. , 2013, , .		0
105	Observation of cross polarization of linearly polarized Airy beam. , 2014, , .		0
106	A new Green's function Monte Carlo algorithm for the solution of the three-dimensional nonlinear Poissonâ€“Boltzmann equation: Application to the modeling of plasma sheath layers. Monte Carlo Methods and Applications, 2014, 20, .	0.3	0
107	Effects of Misalignment on Diffraction of Laguerre-Gauss Vortex Beams by a Circular Aperture. , 2015, , .		0
108	On the bichromatic excitation of a two-level atom with squeezed light. , 2003, , .		0

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109	Higher order photon statistics of intracavity second harmonic generation. , 2003, , 513-514.		0
110	THE HIDDEN SIDE OF A LASER BEAM. , 2006, , .		0
111	Polarization Properties of Ince-Gaussian Beams. , 2007, , .		0
112	Chaotic dynamics of a gain modulated YAG ring laser. , 2007, , .		0
113	A Study of Fibroblast Growth Factor and its Receptor Complex Using Light Scattering. , 2009, , .		0
114	Nonclassical Nature of Counting Probabilities in the Detection of Light from the DPO. , 2009, , .		0
115	Far-field Diffraction of Vortex Beams. , 2011, , .		0
116	Propagation of the cross-polarization component of Hermite-Gauss laser beams. , 2011, , .		0
117	First-Passage-Time Distributions in a Bistable Two-Mode Laser. , 1984, , 165-172.		0
118	Photon Statistics in Resonance Fluorescence with Finite Bandwidth Excitation. , 1984, , 457-464.		0
119	Continuous and Discontinuous Phase Transitions in the Laser with a Saturable Absorber. , 1990, , 775-779.		0
120	Correlation Functions of a He:Ne Laser with Multiplicative White Noise. , 1990, , 915-919.		0
121	Nonlinear Interaction of Modes in the Ring Laser with a Saturable Absorber. , 1990, , 1183-1187.		0
122	Measurements of Higher-Order Photon Correlations of Laser Light. , 1996, , 413-414.		0
123	Polarization of the Airy beam. , 2015, , .		0
124	Observation of Ince-Gaussian beams and their polarization properties. , 2016, , .		0
125	Electron spin interaction with the angular momentum of the electromagnetic field. , 2016, , .		0
126	Waiting time distributions for the first photodetection for classical and quantum light sources. , 2017, , .		0

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127	Variation of polarization profile of Ince-Gaussian beams with eccentricity. , 2017, , .		0
128	Diffraction of Laguerre-Gauss Vortex Beams from Sierpinski Triangles. , 2018, , .		0
129	Friedel's Law in the Diffraction of Angular Momentum Carrying Paraxial Beams. , 2019, , .		0
130	Conditional waiting-time probabilities for the nth photodetection for classical and quantum light sources. , 2019, , .		0
131	Diffraction of Laguerre-Gauss Vortex Beams from Cantor Set and Sierpinski Carpet. , 2021, , .		0