

Mankei Tsang

List of Publications by Year in descending order

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93
papers

2,988
citations

147801

31
h-index

168389

53
g-index

95
all docs

95
docs citations

95
times ranked

1732
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantum Theory of Superresolution for Two Incoherent Optical Point Sources. <i>Physical Review X</i> , 2016, 6, .	8.9	253
2	Fundamental Quantum Limit to Waveform Estimation. <i>Physical Review Letters</i> , 2011, 106, 090401.	7.8	165
3	Coherent Quantum-Noise Cancellation for Optomechanical Sensors. <i>Physical Review Letters</i> , 2010, 105, 123601.	7.8	145
4	Magnifying perfect lens and superlens design by coordinate transformation. <i>Physical Review B</i> , 2008, 77, .	3.2	132
5	Cavity quantum electro-optics. <i>Physical Review A</i> , 2010, 81, .	2.5	131
6	Far-Field Superresolution of Thermal Electromagnetic Sources at the Quantum Limit. <i>Physical Review Letters</i> , 2016, 117, 190801.	7.8	130
7	Quantum Imaging beyond the Diffraction Limit by Optical Centroid Measurements. <i>Physical Review Letters</i> , 2009, 102, 253601.	7.8	101
8	Time-Symmetric Quantum Theory of Smoothing. <i>Physical Review Letters</i> , 2009, 102, 250403.	7.8	96
9	Ziv-Zakai Error Bounds for Quantum Parameter Estimation. <i>Physical Review Letters</i> , 2012, 108, 230401.	7.8	94
10	Quantum metrology with open dynamical systems. <i>New Journal of Physics</i> , 2013, 15, 073005.	2.9	93
11	Evading Quantum Mechanics: Engineering a Classical Subsystem within a Quantum Environment. <i>Physical Review X</i> , 2012, 2, .	8.9	87
12	Cavity quantum electro-optics. II. Input-output relations between traveling optical and microwave fields. <i>Physical Review A</i> , 2011, 84, .	2.5	84
13	Subdiffraction incoherent optical imaging via spatial-mode demultiplexing. <i>New Journal of Physics</i> , 2017, 19, 023054.	2.9	71
14	Resolving starlight: a quantum perspective. <i>Contemporary Physics</i> , 2019, 60, 279-298.	1.8	70
15	Optimal waveform estimation for classical and quantum systems via time-symmetric smoothing. <i>Physical Review A</i> , 2009, 80, .	2.5	68
16	Quantum limit to subdiffraction incoherent optical imaging. <i>Physical Review A</i> , 2019, 99, .	2.5	68
17	Interferometric superlocalization of two incoherent optical point sources. <i>Optics Express</i> , 2016, 24, 3684.	3.4	63
18	Reverse propagation of femtosecond pulses in optical fibers. <i>Optics Letters</i> , 2003, 28, 1873.	3.3	61

#	ARTICLE	IF	CITATIONS
19	Quantum limit for two-dimensional resolution of two incoherent optical point sources. <i>Physical Review A</i> , 2017, 95, .	2.5	58
20	Quantum-Limited Mirror-Motion Estimation. <i>Physical Review Letters</i> , 2013, 111, 163602.	7.8	51
21	Quantum limits to optical point-source localization. <i>Optica</i> , 2015, 2, 646.	9.3	51
22	Phase and amplitude imaging from noisy images by Kalman filtering. <i>Optics Express</i> , 2011, 19, 2805.	3.4	50
23	Quantum Bell-Ziv-Zakai Bounds and Heisenberg Limits for Waveform Estimation. <i>Physical Review X</i> , 2015, 5, .	8.9	48
24	Fisher information for far-field linear optical superresolution via homodyne or heterodyne detection in a higher-order local oscillator mode. <i>Physical Review A</i> , 2017, 96, .	2.5	43
25	Quantum theory of optical temporal phase and instantaneous frequency. II. Continuous-time limit and state-variable approach to phase-locked loop design. <i>Physical Review A</i> , 2009, 79, .	2.5	42
26	Quantum Nonlocality in Weak-Thermal-Light Interferometry. <i>Physical Review Letters</i> , 2011, 107, 270402.	7.8	38
27	Quantum Semiparametric Estimation. <i>Physical Review X</i> , 2020, 10, .	8.9	38
28	Dynamics of filament formation in a Kerr medium. <i>Physical Review A</i> , 2005, 71, .	2.5	37
29	Optimal waveform estimation for classical and quantum systems via time-symmetric smoothing. II. Applications to atomic magnetometry and Hardy's paradox. <i>Physical Review A</i> , 2010, 81, .	2.5	35
30	Quantum transition-edge detectors. <i>Physical Review A</i> , 2013, 88, .	2.5	34
31	Relationship between resolution enhancement and multiphoton absorption rate in quantum lithography. <i>Physical Review A</i> , 2007, 75, .	2.5	33
32	Subdiffraction incoherent optical imaging via spatial-mode demultiplexing: Semiclassical treatment. <i>Physical Review A</i> , 2018, 97, .	2.5	32
33	Fundamental quantum limits to waveform detection. <i>Physical Review A</i> , 2012, 86, .	2.5	31
34	Continuous Quantum Hypothesis Testing. <i>Physical Review Letters</i> , 2012, 108, 170502.	7.8	31
35	Resurgence of Rayleigh's curse in the presence of partial coherence: comment. <i>Optica</i> , 2019, 6, 400.	9.3	30
36	Dispersion and nonlinearity compensation by spectral phase conjugation. <i>Optics Letters</i> , 2003, 28, 1558.	3.3	26

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37	Rib Microring Resonators in Lithium Niobate on Insulator. IEEE Photonics Technology Letters, 2016, 28, 573-576.	2.5	25
38	Quantum theory of optical temporal phase and instantaneous frequency. Physical Review A, 2008, 78, .	2.5	24
39	Spectrum analysis with quantum dynamical systems. Physical Review A, 2016, 93, .	2.5	23
40	Propagation of temporal entanglement. Physical Review A, 2006, 73, .	2.5	20
41	Semiparametric estimation for incoherent optical imaging. Physical Review Research, 2019, 1, .	3.6	20
42	Conservative classical and quantum resolution limits for incoherent imaging. Journal of Modern Optics, 2018, 65, 1385-1391.	1.3	19
43	Theory of resonantly enhanced near-field imaging. Optics Express, 2007, 15, 11959.	3.4	18
44	Reflectionless evanescent-wave amplification by two dielectric planar waveguides. Optics Letters, 2006, 31, 2741.	3.3	17
45	Optomechanical parameter estimation. New Journal of Physics, 2013, 15, 103028.	2.9	15
46	Quantum Weiss-Weinstein bounds for quantum metrology. Quantum Science and Technology, 2016, 1, 015002.	5.8	15
47	Quantum Temporal Correlations and Entanglement via Adiabatic Control of Vector Solitons. Physical Review Letters, 2006, 97, 023902.	7.8	11
48	Fundamental Quantum Limit to the Multiphoton Absorption Rate for Monochromatic Light. Physical Review Letters, 2008, 101, 033602.	7.8	11
49	Quantum information for semiclassical optics. , 2016, , .		11
50	Spectral phase conjugation with cross-phase modulation compensation. Optics Express, 2004, 12, 2207.	3.4	10
51	Spontaneous spectral phase conjugation for coincident frequency entanglement. Physical Review A, 2005, 71, .	2.5	10
52	Fabrication and Characterization of Optical Devices on Lithium Niobate on Insulator Chips. Procedia Engineering, 2016, 140, 183-186.	1.2	10
53	Quantum limits on the time-bandwidth product of an optical resonator. Optics Letters, 2018, 43, 150.	3.3	9
54	Poisson Quantum Information. Quantum - the Open Journal for Quantum Science, 0, 5, 527.	0.0	9

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55	Testing quantum mechanics: a statistical approach. <i>Quantum Measurements and Quantum Metrology</i> , 2013, 1, 84-109.	3.3	8
56	Optimal signal processing for continuous qubit readout. <i>Physical Review A</i> , 2014, 90, .	2.5	8
57	QUANTUM OPTIMALITY OF PHOTON COUNTING FOR TEMPERATURE MEASUREMENT OF THERMAL ASTRONOMICAL SOURCES. <i>Astrophysical Journal</i> , 2015, 808, 125.	4.5	8
58	Quantum limit to subdiffraction incoherent optical imaging. II. A parametric-submodel approach. <i>Physical Review A</i> , 2021, 104, .	2.5	8
59	Volterra filters for quantum estimation and detection. <i>Physical Review A</i> , 2015, 92, .	2.5	7
60	Optical parametric generation in periodically poled KTiOPO4 via extended phase matching. <i>Applied Physics Letters</i> , 2007, 91, 131120.	3.3	5
61	Improved mirror position estimation using resonant quantum smoothing. <i>EPJ Quantum Technology</i> , 2015, 2, .	6.3	5
62	Generalized conditional expectations for quantum retrodiction and smoothing. <i>Physical Review A</i> , 2022, 105, .	2.5	5
63	Spectral phase conjugation by quasi-phase-matched three-wave mixing. <i>Optics Communications</i> , 2004, 242, 659-664.	2.1	4
64	Metaphoric optical computing for fluid dynamics. , 2005, , .		3
65	Spectral phase conjugation via extended phase matching. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2006, 23, 861.	2.1	3
66	Decoherence of quantum-enhanced timing accuracy. <i>Physical Review A</i> , 2007, 75, .	2.5	3
67	Reflectionless evanescent-wave amplification by two dielectric planar waveguides: erratum. <i>Optics Letters</i> , 2007, 32, 86.	3.3	3
68	Publisher's Note: Optimal waveform estimation for classical and quantum systems via time-symmetric smoothing [Phys. Rev. A80, 033840 (2009)]. <i>Physical Review A</i> , 2009, 80, .	2.5	3
69	Physics-inspired forms of the Bayesian Cram�r-Rao bound. <i>Physical Review A</i> , 2020, 102, .	2.5	3
70	Mismatched quantum filtering and entropic information. , 2014, , .		2
71	Fundamental Quantum Limit to Waveform Estimation. , 2011, , .		2
72	Quantum Backaction Noise Cancellation for Linear Systems. , 2011, , .		1

#	ARTICLE	IF	CITATIONS
73	Optical microring resonators in lithium niobate for classical and quantum microwave photonics. , 2013, , .		1
74	Fabrication and characterization of microring resonators in titanium diffused lithium niobate. , 2014, , .		1
75	Rib microring resonators in lithium niobate on insulator. , 2015, , .		1
76	Loss characterization of waveguides in lithium niobate on insulator. , 2016, , .		1
77	Quantum Limit for Two-Dimensional Resolution of Two Incoherent Optical Point Sources. , 2016, , .		1
78	Quantum Optical Temporal Phase Estimation by Homodyne Phase-Locked Loops. , 2009, , .		1
79	Phase and Amplitude Imaging from Noisy Intensity Measurements using a Kalman Filter. , 2010, , .		1
80	Nonlinear signal processing. , 2005, , .		0
81	Metaphoric optical computing. , 0, , .		0
82	Quantum Lithography Has a Reduced Multiphoton Absorption Rate. , 2006, , LWH3.		0
83	Quantum temporal imaging. , 2006, , .		0
84	Ultrafast Mirrorless Optical Parametric Oscillator in Periodically Poled KTiOPO ₄ via Extended Phase Matching. , 2007, , .		0
85	Quantum Theory of Optical Temporal Phase in the Continuous Time Limit. , 2009, , .		0
86	Cavity Quantum Electro-Optic Transduction. , 2011, , .		0
87	Optomechanics sets the beat. Nature Physics, 2014, 10, 245-246.	16.7	0
88	Integrated nonlinear optics: lithium niobate-on-insulator waveguides and resonators. Proceedings of SPIE, 2017, , .	0.8	0
89	Beating Rayleigh's criterion: Superresolution of thermal sources with linear optics. , 2017, , .		0
90	Spectral phase conjugation with cross-phase modulation compensation. , 2004, , .		0

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91	Optical Hydrodynamics. , 2008, , .		0
92	Time-Symmetric Quantum Smoothing: A General Theory of Optimal Quantum Sensing. , 2010, , .		0
93	Rayleigh's Criterion is Irrelevant to the Localization of Two Incoherent Optical Point Sources. , 2016, , .		0