

Tao Lu

List of Publications by Year in descending order

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59
papers

1,494
citations

430874

18
h-index

315739

38
g-index

60
all docs

60
docs citations

60
times ranked

1393
citing authors

#	ARTICLE	IF	CITATIONS
1	High sensitivity nanoparticle detection using optical microcavities. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 5976-5979.	7.1	277
2	Recurrent Neural Networks for Accurate RSSI Indoor Localization. IEEE Internet of Things Journal, 2019, 6, 10639-10651.	8.7	237
3	Cavity optomechanical spring sensing of single molecules. Nature Communications, 2016, 7, 12311.	12.8	161
4	On-chip tunable microdisk laser fabricated on Er ³⁺ -doped lithium niobate on insulator. Optics Letters, 2021, 46, 380.	3.3	82
5	A Soft Range Limited K-Nearest Neighbors Algorithm for Indoor Localization Enhancement. IEEE Sensors Journal, 2018, 18, 10208-10216.	4.7	80
6	On-chip green silica upconversion microlaser. Optics Letters, 2009, 34, 482.	3.3	59
7	Omni SCADA Intrusion Detection Using Deep Learning Algorithms. IEEE Internet of Things Journal, 2021, 8, 951-961.	8.7	45
8	Electro-optic tuning of a single-frequency ultranarrow linewidth microdisk laser. Advanced Photonics, 2022, 4, .	11.8	38
9	A vectorial boundary element method analysis of integrated optical waveguides. Journal of Lightwave Technology, 2003, 21, 1793-1807.	4.6	35
10	A Narrow-Linewidth On-Chip Toroid Raman Laser. IEEE Journal of Quantum Electronics, 2011, 47, 320-326.	1.9	34
11	An Adaptive and Parameter-Free Recurrent Neural Structure for Wireless Channel Prediction. IEEE Transactions on Communications, 2019, 67, 8086-8096.	7.8	33
12	Inter-Patient CNN-LSTM for QRS Complex Detection in Noisy ECG Signals. IEEE Access, 2019, 7, 169359-169370.	4.2	30
13	Universal activation function for machine learning. Scientific Reports, 2021, 11, 18757.	3.3	29
14	Polygon Coherent Modes in a Weakly Perturbed Whispering Gallery Microresonator for Efficient Second Harmonic, Optomechanical, and Frequency Comb Generations. Physical Review Letters, 2020, 125, 173901.	7.8	27
15	Real-time electrical tuning of an optical spring on a monolithically integrated ultrahigh Q lithium niobate microresonator. Optics Letters, 2019, 44, 1214.	3.3	27
16	Full-vectorial whispering-gallery-mode cavity analysis. Optics Express, 2013, 21, 22012.	3.4	26
17	Efficient electro-optical tuning of an optical frequency microcomb on a monolithically integrated high-Q lithium niobate microdisk. Optics Letters, 2019, 44, 5953.	3.3	23
18	Simulation of point defects in high-density luminescent crystals: Oxygen in barium fluoride. Physical Review B, 1998, 57, 764-772.	3.2	18

#	ARTICLE	IF	CITATIONS
19	Comparative Evaluation of a Novel Series Approximation for Electromagnetic Fields at Dielectric Corners With Boundary Element Method Applications. <i>Journal of Lightwave Technology</i> , 2004, 22, 1426-1432.	4.6	18
20	Efficient multicanonical algorithms. <i>IEEE Photonics Technology Letters</i> , 2005, 17, 861-863.	2.5	18
21	Coherent optomechanical oscillation of a silica microsphere in an aqueous environment. <i>Optics Express</i> , 2014, 22, 21421.	3.4	18
22	An Experimental Approach to Multicanonical Sampling. <i>IEEE Photonics Technology Letters</i> , 2004, 16, 1978-1980.	2.5	15
23	Cylindrical beam propagation modelling of perturbed whispering-gallery mode microcavities. <i>Optics Express</i> , 2013, 21, 30243.	3.4	13
24	Generalized full-vector multi-mode matching analysis of whispering gallery microcavities. <i>Optics Express</i> , 2014, 22, 13507.	3.4	13
25	Fabrication of ultra-high Q silica microdisk using chemo-mechanical polishing. <i>Applied Physics Letters</i> , 2021, 119, .	3.3	13
26	Boundary element analysis of dielectric waveguides. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2002, 19, 1197.	1.5	12
27	Improved multicanonical algorithms. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2006, 23, 2912.	1.5	12
28	An experimental realization of biased multicanonical sampling. <i>IEEE Photonics Technology Letters</i> , 2005, 17, 2583-2585.	2.5	11
29	Fabrication of high quality factor lithium niobate double-disk using a femtosecond laser. <i>International Journal of Optomechatronics</i> , 2017, 11, 47-54.	6.6	11
30	Chebyshev and Taylor approximations of polarization mode dispersion for improved compensation bandwidth. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2005, 22, 1662.	1.5	9
31	Biased multicanonical sampling. <i>IEEE Photonics Technology Letters</i> , 2005, 17, 1420-1422.	2.5	9
32	Detecting Noisy ECG QRS Complexes Using WaveletCNN Autoencoder and ConvLSTM. <i>IEEE Access</i> , 2020, 8, 143802-143817.	4.2	9
33	LSTM for SCADA Intrusion Detection. , 2019, , .		7
34	Semi-Sequential Probabilistic Model for Indoor Localization Enhancement. <i>IEEE Sensors Journal</i> , 2020, 20, 6160-6169.	4.7	7
35	Multicanonical comparison of polarization-mode dispersion compensator performance. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2005, 22, 2804.	1.5	5
36	SurfCNN: A Descriptor Accelerated Convolutional Neural Network for Image-Based Indoor Localization. <i>IEEE Access</i> , 2020, 8, 59750-59759.	4.2	5

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37	Alignment methods for biased multicanonical sampling. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2007, 24, 2474.	1.5	4
38	Multi-Label Classification with Optimal Thresholding for Multi-Composition Spectroscopic Analysis. Machine Learning and Knowledge Extraction, 2019, 1, 1084-1099.	5.0	4
39	Operator expansions for polarization mode dispersion analysis and compensation. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2006, 23, 455.	1.5	3
40	A 4-Hz Fundamental Linewidth on-chip Microlaser. , 2007, , .		3
41	Fiber transmission system application and limitation of multicanonical sampling in PMD emulation. , 2005, , .		2
42	Highly Efficient Boundary Element Analysis of Whispering Gallery Microcavities. IEEE Photonics Technology Letters, 2014, 26, 2465-2468.	2.5	2
43	Vectorial whispering gallery mode solvers based on straight waveguide modes. European Physical Journal: Special Topics, 2014, 223, 1949-1957.	2.6	2
44	Hollow Fiber Coupler Sensor. Sensors, 2019, 19, 806.	3.8	2
45	SurfCNN: A descriptor enhanced convolutional neural network. , 2019, , .		2
46	Three-Dimensional Beam Propagation Modelling of Nanostructured Whispering-Gallery Microcavities. IEEE Photonics Journal, 2016, , 1-1.	2.0	1
47	Generalizable Sequential Camera Pose Learning Using Surf Enhanced 3D CNN. , 2020, , .		1
48	Linear-PoseNet: A Real-Time Camera Pose Estimation System Using Linear Regression and Principal Component Analysis. , 2020, , .		1
49	SURF-LSTM: A Descriptor Enhanced Recurrent Neural Network For Indoor Localization. , 2020, , .		1
50	A simulation study for the ground state configuration of the $(F^{2+})^{2-}$ center in NaF:Mg. Radiation Effects and Defects in Solids, 1998, 145, 29-38.	1.2	0
51	An on-chip erbium doped three-photon upconversion silica microlaser emitting at green wavelengths. , 2008, , .		0
52	Nano-sensing with a Silica Microtoroid. , 2011, , .		0
53	An Ultra-narrow-linewidth Microlaser for Nanosensing. , 2012, , .		0
54	Implementation of a Reference Interferometer for Nanodetection. Journal of Visualized Experiments, 2014, , .	0.3	0

#	ARTICLE	IF	CITATIONS
55	Frequency Noise of a Microchip Raman Laser. , 2009, , .		0
56	Silica Microtoroid and its Applications. , 2009, , .		0
57	Single Molecule Detection with an Yb-doped Microlaser. , 2013, , .		0
58	An Optomechanical Induced Short Pulse Raman Laser. , 2015, , .		0
59	Cavity Optomechanics for Sensing Applications. , 2017, , .		0