

Lei Huang

List of Publications by Year in descending order

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100
papers

3,781
citations

186265

28
h-index

128289

60
g-index

101
all docs

101
docs citations

101
times ranked

2207
citing authors

#	ARTICLE	IF	CITATIONS
1	Temporal phase unwrapping algorithms for fringe projection profilometry: A comparative review. <i>Optics and Lasers in Engineering</i> , 2016, 85, 84-103.	3.8	666
2	Controllable preparation of Nano-MgO and investigation of its bactericidal properties. <i>Journal of Inorganic Biochemistry</i> , 2005, 99, 986-993.	3.5	341
3	Comparison of Fourier transform, windowed Fourier transform, and wavelet transform methods for phase extraction from a single fringe pattern in fringe projection profilometry. <i>Optics and Lasers in Engineering</i> , 2010, 48, 141-148.	3.8	262
4	Quality-guided phase unwrapping technique: comparison of quality maps and guiding strategies. <i>Applied Optics</i> , 2011, 50, 6214.	2.1	239
5	Review of phase measuring deflectometry. <i>Optics and Lasers in Engineering</i> , 2018, 107, 247-257.	3.8	152
6	Recent Progress on Two-dimensional Electrocatalysis. <i>Chemical Research in Chinese Universities</i> , 2020, 36, 611-621.	2.6	140
7	Least-squares calibration method for fringe projection profilometry considering camera lens distortion. <i>Applied Optics</i> , 2010, 49, 1539.	2.1	120
8	Dynamic three-dimensional sensing for specular surface with monoscopic fringe reflectometry. <i>Optics Express</i> , 2011, 19, 12809.	3.4	111
9	Mitofilin and CHCHD6 physically interact with Sam50 to sustain cristae structure. <i>Scientific Reports</i> , 2015, 5, 16064.	3.3	99
10	High-speed 3D shape measurement using the optimized composite fringe patterns and stereo-assisted structured light system. <i>Optics Express</i> , 2019, 27, 2411.	3.4	92
11	Comparison of two-dimensional integration methods for shape reconstruction from gradient data. <i>Optics and Lasers in Engineering</i> , 2015, 64, 1-11.	3.8	83
12	Temporal phase unwrapping using deep learning. <i>Scientific Reports</i> , 2019, 9, 20175.	3.3	81
13	Camera calibration with active phase target: improvement on feature detection and optimization. <i>Optics Letters</i> , 2013, 38, 1446.	3.3	78
14	Modal phase measuring deflectometry. <i>Optics Express</i> , 2016, 24, 24649.	3.4	71
15	Improvement of least-squares integration method with iterative compensations in fringe reflectometry. <i>Applied Optics</i> , 2012, 51, 7459.	1.8	60
16	High-accuracy aspheric x-ray mirror metrology using Software Configurable Optical Test System/deflectometry. <i>Optical Engineering</i> , 2015, 54, 084103.	1.0	50
17	A review on the mechanism and affecting factors of nitrous oxide emission in constructed wetlands. <i>Environmental Earth Sciences</i> , 2013, 68, 2171-2180.	2.7	49
18	High-speed real-time 3D shape measurement based on adaptive depth constraint. <i>Optics Express</i> , 2018, 26, 22440.	3.4	49

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19	Phase invalidity identification framework with the temporal phase unwrapping method. Measurement Science and Technology, 2011, 22, 035304.	2.6	46
20	Flexible camera calibration using not-measured imperfect target. Applied Optics, 2013, 52, 6278.	1.8	44
21	Fast full-field out-of-plane deformation measurement using fringe reflectometry. Optics and Lasers in Engineering, 2012, 50, 529-533.	3.8	43
22	Zonal wavefront reconstruction in quadrilateral geometry for phase measuring deflectometry. Applied Optics, 2017, 56, 5139.	2.1	43
23	Phase discrepancy analysis and compensation for fast Fourier transform based solution of the transport of intensity equation. Optics Express, 2014, 22, 17172.	3.4	39
24	Spline based least squares integration for two-dimensional shape or wavefront reconstruction. Optics and Lasers in Engineering, 2017, 91, 221-226.	3.8	39
25	Single-shot 3D shape measurement using an end-to-end stereo matching network for speckle projection profilometry. Optics Express, 2021, 29, 13388.	3.4	39
26	Study on an effective one-dimensional ion-beam figuring method. Optics Express, 2019, 27, 15368.	3.4	37
27	Phase retrieval with the transport-of-intensity equation in an arbitrarily shaped aperture by iterative discrete cosine transforms. Optics Letters, 2015, 40, 1976.	3.3	36
28	Influence of nano-MgO particle size on bactericidal action against Bacillus subtilis var. niger. Science Bulletin, 2005, 50, 514-519.	1.7	32
29	Calibration method for panoramic 3D shape measurement with plane mirrors. Optics Express, 2019, 27, 36538.	3.4	28
30	Shape reconstruction from gradient data in an arbitrarily-shaped aperture by iterative discrete cosine transforms in Southwell configuration. Optics and Lasers in Engineering, 2015, 67, 176-181.	3.8	24
31	Two-dimensional stitching interferometry for self-calibration of high-order additive systematic errors. Optics Express, 2019, 27, 26940.	3.4	24
32	Effects of a Commercial Microbial Agent on the Bacterial Communities in Shrimp Culture System. Frontiers in Microbiology, 2018, 9, 2430.	3.5	22
33	108 W, 26 times diffraction limited laser based on a continuous wave Nd:YAG oscillator and an extra-cavity adaptive optics system. Optics Letters, 2018, 43, 4160.	3.3	21
34	Framework for gradient integration by combining radial basis functions method and least-squares method. Applied Optics, 2013, 52, 6016.	1.8	20
35	One-dimensional stitching interferometry assisted by a triple-beam interferometer. Optics Express, 2017, 25, 9393.	3.4	20
36	Phase retrieval from reflective fringe patterns of double-sided transparent objects. Measurement Science and Technology, 2012, 23, 085201.	2.6	19

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37	Close-loop performance of a high precision deflectometry controlled deformable mirror (DCDM) unit for wavefront correction in adaptive optics system. <i>Optics Communications</i> , 2017, 393, 83-88.	2.1	19
38	One-dimensional angular-measurement-based stitching interferometry. <i>Optics Express</i> , 2018, 26, 9882.	3.4	19
39	RISE: robust iterative surface extension for sub-nanometer X-ray mirror fabrication. <i>Optics Express</i> , 2021, 29, 15114.	3.4	19
40	Universal dwell time optimization for deterministic optics fabrication. <i>Optics Express</i> , 2021, 29, 38737.	3.4	18
41	Research on the particular temperature-induced surface shape of a National Ignition Facility deformable mirror. <i>Applied Optics</i> , 2013, 52, 280.	1.8	17
42	A one-dimensional ion beam figuring system for x-ray mirror fabrication. <i>Review of Scientific Instruments</i> , 2015, 86, 105120.	1.3	17
43	Ginsenoside Rg1 attenuates LPS-induced chronic renal injury by inhibiting NOX4-NLRP3 signaling in mice. <i>Biomedicine and Pharmacotherapy</i> , 2022, 150, 112936.	5.6	17
44	One-dimensional ion-beam figuring for grazing-incidence reflective optics. <i>Journal of Synchrotron Radiation</i> , 2016, 23, 182-186.	2.4	16
45	Weakening of mudstone fragments due to disintegration: an experimental investigation. <i>Bulletin of Engineering Geology and the Environment</i> , 2020, 79, 5477-5497.	3.5	16
46	Model mismatch analysis and compensation for modal phase measuring deflectometry. <i>Optics Express</i> , 2017, 25, 881.	3.4	15
47	Simulational and experimental investigation on the actuator-corresponding high-frequency aberration of the piezoelectric stacked array deformable mirror. <i>Optics Express</i> , 2018, 26, 23613.	3.4	15
48	New figuring model based on surface slope profile for grazing-incidence reflective optics. <i>Journal of Synchrotron Radiation</i> , 2016, 23, 1087-1090.	2.4	14
49	Changes in Hadley circulation and intertropical convergence zone under strategic stratospheric aerosol geoengineering. <i>Npj Climate and Atmospheric Science</i> , 2022, 5, .	6.8	14
50	High-precision system identification method for a deformable mirror in wavefront control. <i>Applied Optics</i> , 2015, 54, 4313.	1.8	13
51	Two-dimensional stitching interferometry based on tilt measurement. <i>Optics Express</i> , 2018, 26, 23278.	3.4	13
52	Development of a position-velocity-time-modulated two-dimensional ion beam figuring system for synchrotron x-ray mirror fabrication. <i>Applied Optics</i> , 2020, 59, 3306.	1.8	13
53	Experimental investigation of the deformable mirror with bidirectional thermal actuators. <i>Optics Express</i> , 2015, 23, 17520.	3.4	12
54	Assessment of heavy metals mobility and correlative recovery and decontamination from MSWI fly ash: Mechanism and hydrometallurgical process evaluation. <i>Science of the Total Environment</i> , 2021, 768, 145050.	8.0	12

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55	Atmospheric outflow of anthropogenic iron and its deposition to China adjacent seas. <i>Science of the Total Environment</i> , 2021, 750, 141302.	8.0	11
56	Theoretical and experimental research on temperature-induced surface distortion of deformable mirror. <i>Optics Express</i> , 2018, 26, 32205.	3.4	10
57	An empirical relation for parameter m_i in the Hoek-Brown criterion of anisotropic intact rocks with consideration of the minor principal stress and stress-to-weak-plane angle. <i>Acta Geotechnica</i> , 2021, 16, 551-567.	5.7	10
58	Deficiency of β -arrestin2 alleviates apoptosis through GRP78-ATF6-CHOP signaling pathway in primary Sjögren's syndrome. <i>International Immunopharmacology</i> , 2021, 101, 108281.	3.8	10
59	Multi-pitch self-calibration measurement using a nano-accuracy surface profiler for X-ray mirror metrology. <i>Optics Express</i> , 2020, 28, 23060.	3.4	10
60	Method for acquiring the characteristic parameter of the dual-spiral moiré fringes. <i>Optics Letters</i> , 2008, 33, 872.	3.3	9
61	EUV and Hard X-ray Hartmann Wavefront Sensing for Optical Metrology, Alignment and Phase Imaging. <i>Sensors</i> , 2021, 21, 874.	3.8	9
62	Composite deep learning framework for absolute 3D shape measurement based on single fringe phase retrieval and speckle correlation. <i>JPhys Photonics</i> , 2020, 2, 045009.	4.6	9
63	Theoretical research on the novel adaptive optics configuration based on the tubular deformable mirror for the aberration correction of the annular laser beam. <i>Optics Express</i> , 2019, 27, 9215.	3.4	8
64	Dual-tool multiplexing model of parallel computer controlled optical surfacing. <i>Optics Letters</i> , 2020, 45, 6426.	3.3	8
65	Multi-tool optimization for computer controlled optical surfacing. <i>Optics Express</i> , 2022, 30, 16957.	3.4	7
66	Effect of the particular temperature field on a National Ignition Facility deformable mirror. <i>Optics Communications</i> , 2016, 374, 119-126.	2.1	6
67	Simulational and experimental investigation on the dynamic high frequency aberration of the deformable mirror. <i>Optics Express</i> , 2017, 25, 32853.	3.4	6
68	Intracavity deformable mirror for beam quality improvement and power enhancement of a passively Q-switched laser. <i>Optics Express</i> , 2018, 26, 8594.	3.4	6
69	Controlling X-ray deformable mirrors during inspection. <i>Journal of Synchrotron Radiation</i> , 2016, 23, 1348-1356.	2.4	6
70	Simulational and experimental investigation on the print-through high-frequency aberration of the shear-joint NIF deformable mirror. <i>Optics Express</i> , 2019, 27, 19503.	3.4	6
71	Wavefront correction performed by a deformable mirror of arbitrary actuator pattern within a multireflection waveguide. <i>Applied Optics</i> , 2014, 53, 5917.	1.8	5
72	Simulation and experimental investigation on the temperature-induced distortion characteristics of the hybrid connection structure deformable mirror. <i>Optics Express</i> , 2020, 28, 35202.	3.4	5

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73	Generation of a mode-tunable optical vortex based on a mirror curvature dynamically controlled Z-shaped resonant cavity. Optics Letters, 2021, 46, 3079.	3.3	4
74	Wavefront correction by a low-cost deformable mirror group in a small-aperture-beam fiber laser. Applied Optics, 2017, 56, 2176.	2.1	4
75	Repeatability analysis of one-dimensional angular-measurement-based stitching interferometry. Optics Express, 2018, 26, 20192.	3.4	4
76	Simultaneous measurement of displacement, pitch, and yaw angles of a cavity output mirror based on phase measuring deflectometry. Applied Optics, 2020, 59, 3270.	1.8	3
77	High precision wavefront correction using an influence function optimization method based on a hybrid adaptive optics system. Optics Express, 2019, 27, 34937.	3.4	3
78	Orientation dependent wavefront correction system under grazing incidence. Optics Express, 2013, 21, 20497.	3.4	2
79	Sub-regional wavefront hybrid algorithm for limited actuators deformable mirror. Optics Communications, 2018, 426, 435-442.	2.1	2
80	Revisiting Daily MODIS Evapotranspiration Algorithm Using Flux Tower Measurements in China. Earth and Space Science, 2021, 8, e2021EA001818.	2.6	2
81	Filtered Influence Function of Deformable Mirror for Wavefront Correction in Laser Systems. Photonics, 2021, 8, 410.	2.0	2
82	Deformable mirror resolution-matching-based two-stage wavefront sensorless adaptive optics method. Applied Optics, 2020, 59, 6848.	1.8	2
83	Theoretical and Experimental Research on the Mode Modulation Regulation for the Mode-Tunable Vortex Laser Based on Mode Conversion and Intra-Cavity Modulation. Photonics, 2022, 9, 232.	2.0	2
84	Measurement Uncertainty of Highly Asymmetrically Curved Elliptical Mirrors Using Multi-Pitch Slope Stitching Technique. Frontiers in Physics, 2022, 10, .	2.1	2
85	Compact instantaneous phase-shifting Sagnac interferometer for nanoscale tilt measurement. Optics and Laser Technology, 2022, 153, 108168.	4.6	2
86	Collinear phase-matching study of terahertz-wave generation via difference frequency mixed in GaAs and Inp. Optoelectronics Letters, 2008, 4, 234-238.	0.8	1
87	Magnetic fields study of various planar Halbach permanent magnet array. , 2010, , .		1
88	Quantitative phase measurement for wafer-level optics. , 2015, , .		1
89	Phase retrieval in arbitrarily shaped aperture with the transport-of-intensity equation. Proceedings of SPIE, 2015, , .	0.8	1
90	Experimental research on characteristics of error surface shape and reset of spatial attitude variations in phase measuring deflectometry system. Optics Communications, 2020, 469, 125811.	2.1	1

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91	A theoretical strain relationship for identifying the failure of laboratory-scale rocks under triaxial compression. Geomechanics and Geoengineering, 2021, 16, 99-115.	1.8	1
92	Effects of boron content on the microstructure and properties of B _x C-TiB ₂ (<i>x</i> =4.5, 6.5 or 8.5) ceramic composites by the reactive spark plasma sintering. International Journal of Smart and Nano Materials, 2022, 13, 100-113.	4.2	1
93	Special Issue "ELUV and X-ray Wavefront Sensing". Sensors, 2022, 22, 3940.	3.8	1
94	Calculation and investigation of end-effect for a high-precision planar magnetic levitation. , 2010, , .		0
95	New scheme to control x-ray deformable mirrors. , 2016, , .		0
96	Control x-ray deformable mirrors with few measurements. Proceedings of SPIE, 2016, , .	0.8	0
97	X-ray optics R&D at NSLSII: focus on optical metrology development. , 2016, , .		0
98	Numerical analysis of a novel two-stage enlargement and adaptive correction approach for the annular aberration compensation. Optics Express, 2019, 27, 25205.	3.4	0
99	Improvement of closed-loop wavefront correction performance in an adaptive optics system. , 2020, , .		0
100	Surface Shape Distortion Online Measurement Method for Compact Laser Cavities Based on Phase Measuring Deflectometry. Photonics, 2022, 9, 151.	2.0	0