

Lei Huang

List of Publications by Year in descending order

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172457
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docs citations

77
times ranked

1441
citing authors

#	ARTICLE	IF	CITATIONS
1	Surface Shape Distortion Online Measurement Method for Compact Laser Cavities Based on Phase Measuring Deflectometry. Photonics, 2022, 9, 151.	2.0	0
2	Measurement Uncertainty of Highly Asymmetrically Curved Elliptical Mirrors Using Multi-Pitch Slope Stitching Technique. Frontiers in Physics, 2022, 10, .	2.1	2
3	Multi-tool optimization for computer controlled optical surfacing. Optics Express, 2022, 30, 16957.	3.4	7
4	Compact instantaneous phase-shifting Sagnac interferometer for nanoscale tilt measurement. Optics and Laser Technology, 2022, 153, 108168.	4.6	2
5	Special Issue "EUV and X-ray Wavefront Sensing". Sensors, 2022, 22, 3940.	3.8	1
6	EUV and Hard X-ray Hartmann Wavefront Sensing for Optical Metrology, Alignment and Phase Imaging. Sensors, 2021, 21, 874.	3.8	9
7	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
8	RISE: robust iterative surface extension for sub-nanometer X-ray mirror fabrication. Optics Express, 2021, 29, 15114.	3.4	19
9	Universal dwell time optimization for deterministic optics fabrication. Optics Express, 2021, 29, 38737.	3.4	18
10	Stitching interferometry for synchrotron mirror metrology at National Synchrotron Light Source II (NSLS-II). Optics and Lasers in Engineering, 2020, 124, 105795.	3.8	26
11	RIFTA: A Robust Iterative Fourier Transform-based dwell time Algorithm for ultra-precision ion beam figuring of synchrotron mirrors. Scientific Reports, 2020, 10, 8135.	3.3	20
12	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
13	Transport of intensity equation: a tutorial. Optics and Lasers in Engineering, 2020, 135, 106187.	3.8	272
14	Composite deep learning framework for absolute 3D shape measurement based on single fringe phase retrieval and speckle correlation. JPhys Photonics, 2020, 2, 045009.	4.6	9
15	Development of a position"velocity" time-modulated two-dimensional ion beam figuring system for synchrotron x-ray mirror fabrication. Applied Optics, 2020, 59, 3306.	1.8	13
16	Adaptive shape control of wavefront-preserving X-ray mirrors with active cooling and heating. Optics Express, 2020, 28, 19242.	3.4	24
17	Multi-pitch self-calibration measurement using a nano-accuracy surface profiler for X-ray mirror metrology. Optics Express, 2020, 28, 23060.	3.4	10
18	Dual-tool multiplexing model of parallel computer controlled optical surfacing. Optics Letters, 2020, 45, 6426.	3.3	8

#	ARTICLE	IF	CITATIONS
19	Temporal phase unwrapping using deep learning. Scientific Reports, 2019, 9, 20175.	3.3	81
20	High-speed three-dimensional shape measurement using geometry-constraint-based number-theoretical phase unwrapping. Optics and Lasers in Engineering, 2019, 115, 21-31.	3.8	48
21	High-speed 3D shape measurement using the optimized composite fringe patterns and stereo-assisted structured light system. Optics Express, 2019, 27, 2411.	3.4	92
22	Study on an effective one-dimensional ion-beam figuring method. Optics Express, 2019, 27, 15368.	3.4	37
23	Two-dimensional stitching interferometry for self-calibration of high-order additive systematic errors. Optics Express, 2019, 27, 26940.	3.4	24
24	Calibration method for panoramic 3D shape measurement with plane mirrors. Optics Express, 2019, 27, 36538.	3.4	28
25	One-dimensional ion-beam figuring solution from Brookhaven National Laboratory. , 2019, , .		0
26	Collaborative development of diffraction-limited beamline optical systems at US DOE light sources. , 2019, , .		0
27	Study on the performances of dwell time algorithms in ion beam figuring. , 2019, , .		1
28	Review of phase measuring deflectometry. Optics and Lasers in Engineering, 2018, 107, 247-257.	3.8	152
29	Micro Fourier Transform Profilometry ($\hat{1}/4$ FTP): 3D shape measurement at 10,000 frames per second. Optics and Lasers in Engineering, 2018, 102, 70-91.	3.8	186
30	Two-dimensional stitching interferometry based on tilt measurement. Optics Express, 2018, 26, 23278.	3.4	13
31	High-speed real-time 3D shape measurement based on adaptive depth constraint. Optics Express, 2018, 26, 22440.	3.4	49
32	Phase shifting algorithms for fringe projection profilometry: A review. Optics and Lasers in Engineering, 2018, 109, 23-59.	3.8	728
33	Laser thermal distortion all-time metrology system for solid-state laser based on phase measuring deflectometry. Optics Communications, 2018, 423, 134-139.	2.1	5
34	One-dimensional angular-measurement-based stitching interferometry. Optics Express, 2018, 26, 9882.	3.4	19
35	Repeatability analysis of one-dimensional angular-measurement-based stitching interferometry. Optics Express, 2018, 26, 20192.	3.4	4
36	Micro Fourier Transform Profilometry ($\hat{1}/4$ FTP): 3D imaging at 10,000 fps. , 2018, , .		1

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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. Optics Communications, 2017, 393, 83-88.	2.1	19
38	Three-dimensional shape measurement with modal phase measuring deflectometry. , 2017, , .		5
39	Spline based least squares integration for two-dimensional shape or wavefront reconstruction. Optics and Lasers in Engineering, 2017, 91, 221-226.	3.8	39
40	Model mismatch analysis and compensation for modal phase measuring deflectometry. Optics Express, 2017, 25, 881.	3.4	15
41	One-dimensional stitching interferometry assisted by a triple-beam interferometer. Optics Express, 2017, 25, 9393.	3.4	20
42	Zonal wavefront reconstruction in quadrilateral geometry for phase measuring deflectometry. Applied Optics, 2017, 56, 5139.	2.1	43
43	Alignment of KB mirrors with at-wavelength metrology tool simulated using SRW. , 2017, , .		1
44	Modal phase measuring deflectometry. Optics Express, 2016, 24, 24649.	3.4	71
45	Adaptive interferometric null testing for unknown freeform optics metrology. Optics Letters, 2016, 41, 5539.	3.3	50
46	One-dimensional ion-beam figuring for grazing-incidence reflective optics. Journal of Synchrotron Radiation, 2016, 23, 182-186.	2.4	16
47	New scheme to control x-ray deformable mirrors. , 2016, , .		0
48	Surface profile and stress field evaluation using digital gradient sensing method. Measurement Science and Technology, 2016, 27, 095203.	2.6	19
49	Temporal phase unwrapping algorithms for fringe projection profilometry: A comparative review. Optics and Lasers in Engineering, 2016, 85, 84-103.	3.8	666
50	New figuring model based on surface slope profile for grazing-incidence reflective optics. Journal of Synchrotron Radiation, 2016, 23, 1087-1090.	2.4	14
51	Controlling X-ray deformable mirrors during inspection. Journal of Synchrotron Radiation, 2016, 23, 1348-1356.	2.4	6
52	A one-dimensional ion beam figuring system for x-ray mirror fabrication. Review of Scientific Instruments, 2015, 86, 105120.	1.3	17
53	Phase retrieval in arbitrarily shaped aperture with the transport-of-intensity equation. Proceedings of SPIE, 2015, , .	0.8	1
54	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

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55	High-accuracy aspheric x-ray mirror metrology using Software Configurable Optical Test System/deflectometry. <i>Optical Engineering</i> , 2015, 54, 084103.	1.0	50
56	Shape reconstruction from gradient data in an arbitrarily-shaped aperture by iterative discrete cosine transforms in Southwell configuration. <i>Optics and Lasers in Engineering</i> , 2015, 67, 176-181.	3.8	24
57	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
58	Phase discrepancy analysis and compensation for fast Fourier transform based solution of the transport of intensity equation. <i>Optics Express</i> , 2014, 22, 17172.	3.4	39
59	Specular 3D shape measurement with a compact fringe reflection system. , 2013, , .		2
60	Camera calibration with active phase target: improvement on feature detection and optimization. <i>Optics Letters</i> , 2013, 38, 1446.	3.3	78
61	Framework for gradient integration by combining radial basis functions method and least-squares method. <i>Applied Optics</i> , 2013, 52, 6016.	1.8	20
62	Flexible camera calibration using not-measured imperfect target. <i>Applied Optics</i> , 2013, 52, 6278.	1.8	44
63	Phase retrieval from reflective fringe patterns of double-sided transparent objects. <i>Measurement Science and Technology</i> , 2012, 23, 085201.	2.6	19
64	Improvement of least-squares integration method with iterative compensations in fringe reflectometry. <i>Applied Optics</i> , 2012, 51, 7459.	1.8	60
65	Fast full-field out-of-plane deformation measurement using fringe reflectometry. <i>Optics and Lasers in Engineering</i> , 2012, 50, 529-533.	3.8	43
66	Quality-guided phase unwrapping technique: comparison of quality maps and guiding strategies. <i>Applied Optics</i> , 2011, 50, 6214.	2.1	239
67	Dynamic three-dimensional sensing for specular surface with monoscopic fringe reflectometry. <i>Optics Express</i> , 2011, 19, 12809.	3.4	111
68	Study on three-dimensional shape measurement of partially diffuse and specular reflective surfaces with fringe projection technique and fringe reflection technique. , 2011, , .		1
69	Phase invalidity identification framework with the temporal phase unwrapping method. <i>Measurement Science and Technology</i> , 2011, 22, 035304.	2.6	46
70	Dynamic 3D Measurement for Specular Reflecting Surface with Monoscopic Fringe Reflection Deflectometry. , 2011, , .		2
71	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
72	Least-squares calibration method for fringe projection profilometry considering camera lens distortion. <i>Applied Optics</i> , 2010, 49, 1539.	2.1	120

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73	Compact fringe projection profilometer. Proceedings of SPIE, 2009, , .	0.8	0
74	Least-squares phase-height mapping for fringe projection profilometry considering camera lens distortion. Proceedings of SPIE, 2009, , .	0.8	0
75	Phase error analysis and compensation for nonsinusoidal waveforms in phase-shifting digital fringe projection profilometry. Optics Letters, 2009, 34, 416.	3.3	307
76	Method for acquiring the characteristic parameter of the dual-spiral moiré fringes. Optics Letters, 2008, 33, 872.	3.3	9
77	Hard X-Ray Hartmann Wavefront Sensor for Beamline Optimization. Synchrotron Radiation News, 0, , 1-5.	0.8	0