

Maciej Trusiak

List of Publications by Year in descending order

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65
papers

1,195
citations

361413

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h-index

377865

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70
all docs

70
docs citations

70
times ranked

571
citing authors

#	ARTICLE	IF	CITATIONS
1	Tailoring 2D fast iterative filtering algorithm for low-contrast optical fringe pattern preprocessing. Optics and Lasers in Engineering, 2022, 155, 107069.	3.8	3
2	FPM app: an open-source MATLAB application for simple and intuitive Fourier ptychographic reconstruction. Bioinformatics, 2021, 37, 3695-3696.	4.1	4
3	Spatially multiplexed interferometric microscopy: principles and applications to biomedical imaging. JPhys Photonics, 2021, 3, 034005.	4.6	5
4	Fringe analysis: single-shot or two-frames? Quantitative phase imaging answers. Optics Express, 2021, 29, 18192.	3.4	11
5	Common-path intrinsically achromatic optical diffraction tomography. Biomedical Optics Express, 2021, 12, 4219.	2.9	6
6	Single-shot fringe pattern phase retrieval using improved period-guided bidimensional empirical mode decomposition and Hilbert transform. Optics Express, 2021, 29, 31632.	3.4	8
7	Versatile optimization-based speed-up method for autofocusing in digital holographic microscopy. Optics Express, 2021, 29, 33297.	3.4	4
8	DeepDensity: Convolutional neural network based estimation of local fringe pattern density. Optics and Lasers in Engineering, 2021, 145, 106675.	3.8	9
9	Total-shear grating based optical diffraction tomography. , 2021, , .		0
10	High space-bandwidth product phase imaging using VHQPPI numerical add-on. , 2021, , .		0
11	Applying an Iterative Filtering Method for Optical Fringe Patterns Preprocessing. , 2021, , .		0
12	Noise influence on DeepDensity: convolutional neural network for local fringe density map estimation. , 2021, , .		0
13	Numerically Enhanced Stimulated Emission Depletion Microscopy with Adaptive Optics for Deep-Tissue Super-Resolved Imaging. ACS Nano, 2020, 14, 394-405.	14.6	15
14	Variational Hilbert Quantitative Phase Imaging. Scientific Reports, 2020, 10, 13955.	3.3	34
15	DarkFocus: numerical autofocusing in digital in-line holographic microscopy using variance of computational dark-field gradient. Optics and Lasers in Engineering, 2020, 134, 106195.	3.8	30
16	Off-axis digital holographic multiplexing for rapid wavefront acquisition and processing. Advances in Optics and Photonics, 2020, 12, 556.	25.5	55
17	Full-field vibration profilometry using time-averaged interference microscopy aided by variational analysis. Optics Express, 2020, 28, 435.	3.4	3
18	Automatic fringe pattern enhancement using truly adaptive period-guided bidimensional empirical mode decomposition. Optics Express, 2020, 28, 6277.	3.4	12

#	ARTICLE	IF	CITATIONS
19	Grating deployed total-shear 3-beam interference microscopy with reduced temporal coherence. Optics Express, 2020, 28, 6893.	3.4	9
20	Deep-learning Accelerated Fringe Pattern Filtration Using Variational Image Decomposition. , 2020, , .		0
21	Snap-shot fringe pattern enhancement using period-guided bidimensional empirical mode decomposition. , 2020, , .		0
22	Single-shot slightly off-axis digital holographic microscopy with add-on module based on beamsplitter cube. Optics Express, 2019, 27, 5655.	3.4	52
23	Enhancing single-shot fringe pattern phase demodulation using advanced variational image decomposition. Journal of Optics (United Kingdom), 2019, 21, 045702.	2.2	5
24	Single-shot isotropic quantitative phase microscopy based on color-multiplexed differential phase contrast. APL Photonics, 2019, 4, 121301.	5.7	29
25	Temporal phase unwrapping using deep learning. Scientific Reports, 2019, 9, 20175.	3.3	81
26	Interferometric Methods in NDE. , 2019, , 361-382.		1
27	Single-shot two-frame ð€-shifted spatially multiplexed interference phase microscopy. Journal of Biomedical Optics, 2019, 24, 1.	2.6	21
28	Three-level transmittance 2D grating with reduced spectrum and its self-imaging. Optics Express, 2019, 27, 1854.	3.4	3
29	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
30	Automatized fringe pattern preprocessing using unsupervised variational image decomposition. Optics Express, 2019, 27, 22542.	3.4	27
31	Common-path two-shot binary checker grating based interference microscope for quantitative bio-phase imaging. , 2019, , .		0
32	Upgrading a brightfield optical microscope into a robust numerically advanced interference-based phase imager. , 2019, , .		0
33	Biological phase sample study using variational Hilbert imaging technique. , 2019, , .		1
34	10.1063/1.5124535.1. , 2019, , .		0
35	Hilbertâ€“Huang transform based advanced Bessel fringe generation and demodulation for full-field vibration studies of specular reflection micro-objects. Optics and Lasers in Engineering, 2018, 110, 100-112.	3.8	18
36	Hilbertâ€“Huang single-shot spatially multiplexed interferometric microscopy. Optics Letters, 2018, 43, 1007.	3.3	32

#	ARTICLE	IF	CITATIONS
37	Interferometric Methods in NDE. , 2018, , 1-22.		0
38	Single-frame fringe pattern analysis using modified variational image decomposition aided by the Hilbert transform for fast full-field quantitative phase imaging. , 2018, , .		1
39	Amplitude checker grating-based multichannel lateral shear interferometry for extended aberration sensing. , 2018, , .		0
40	Multi-beam spatially multiplexed interference microscopy for phase objects examination. , 2018, , .		0
41	Moiré effect-based interference microscopy for biospecimen characterization. , 2018, , .		0
42	5-beam grating interferometry for extended phase gradient sensing. Optics Express, 2018, 26, 26872.	3.4	5
43	Analysis of fringe patterns with variable density using modified variational image decomposition aided by the Hilbert Transform. , 2018, , .		1
44	Evaluation of adaptively enhanced two-shot fringe pattern phase and amplitude demodulation methods. Applied Optics, 2017, 56, 5489.	1.8	24
45	Generation of phase edge singularities by coplanar three-beam interference and their detection. Optics Express, 2017, 25, 2432.	3.4	5
46	Quantitative phase imaging by single-shot Hilbert-Huang phase microscopy. Optics Letters, 2016, 41, 4344.	3.3	53
47	Subtractive two-frame three-beam phase-stepping interferometry for testing surface shape of quasi-parallel plates. Optics Express, 2016, 24, 30505.	3.4	5
48	Adaptive automatic data analysis in full-field fringe-pattern-based optical metrology. Proceedings of SPIE, 2016, , .	0.8	1
49	Optical methods for measurements of surface shape in optical components for high power laser beam forming. Proceedings of SPIE, 2016, , .	0.8	0
50	Evaluation of single-shot and two-shot fringe pattern phase demodulation algorithms aided by the Hilbert-Huang transform. , 2016, , .		0
51	Single and two-shot quantitative phase imaging using Hilbert-Huang Transform based fringe pattern analysis. , 2016, , .		1
52	Single shot fringe pattern phase demodulation using Hilbert-Huang transform aided by the principal component analysis. Optics Express, 2016, 24, 4221.	3.4	60
53	Single-shot 3-beam grating interferometry for self-imaging free extended range wave front sensing. Optics Letters, 2016, 41, 4417.	3.3	12
54	Simultaneous extraction of phase and phase shift from two interferograms using Lissajous figure and ellipse fitting technology with Hilbert-Huang prefiltering. Journal of Optics (United Kingdom), 2016, 18, 105604.	2.2	28

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55	Coplanar three-beam interference and phase edge dislocations. , 2016, , .		0
56	Two-shot fringe pattern phase-amplitude demodulation using Gram-Schmidt orthonormalization with Hilbert-Huang pre-filtering. Optics Express, 2015, 23, 4672.	3.4	59
57	Diffraction grating three-beam interferometry without self-imaging regime contrast modulations. Optics Letters, 2015, 40, 1089.	3.3	17
58	Optically-sectioned two-shot structured illumination microscopy with Hilbert-Huang processing. Optics Express, 2014, 22, 9517.	3.4	36
59	Circularâ€“linear grating Talbot interferometry with moirÃ© Fresnel imaging for beam collimation. Optics Letters, 2014, 39, 291.	3.3	19
60	Advanced processing of optical fringe patterns by automated selective reconstruction and enhanced fast empirical mode decomposition. Optics and Lasers in Engineering, 2014, 52, 230-240.	3.8	108
61	Highly contrasted Bessel fringe minima visualization for time-averaged vibration profilometry using Hilbert transform two-frame processing. Optics Express, 2013, 21, 16863.	3.4	22
62	Hilbert-Huang processing for single-exposure two-dimensional grating interferometry. Optics Express, 2013, 21, 28359.	3.4	43
63	Space domain interpretation of incoherent moirÃ© superimpositions using FABEMD. , 2012, , .		8
64	Adaptive enhancement of optical fringe patterns by selective reconstruction using FABEMD algorithm and Hilbert spiral transform. Optics Express, 2012, 20, 23463.	3.4	74
65	Fourier domain interpretation of real and pseudo-moirÃ© phenomena. Optics Express, 2011, 19, 26065.	3.4	40