

Pasquale Memmolo

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6992622/publications.pdf>

Version: 2024-02-01

153
papers

3,946
citations

109321
35
h-index

128289
60
g-index

157
all docs

157
docs citations

157
times ranked

2187
citing authors

#	ARTICLE	IF	CITATIONS
1	Differential diagnosis of hereditary anemias from a fraction of blood drop by digital holography and hierarchical machine learning. Biosensors and Bioelectronics, 2022, 201, 113945.	10.1	19
2	Kinematic analysis and visualization of Tetraselmis microalgae 3D motility by digital holography. Applied Optics, 2022, 61, B331.	1.8	6
3	Dual-plane coupled phase retrieval for non-prior holographic imaging. PhotonIX, 2022, 3, .	13.5	55
4	Speeding up reconstruction of 3D tomograms in holographic flow cytometry <i>via</i> deep learning. Lab on A Chip, 2022, 22, 793-804.	6.0	39
5	Digital holography as metrology tool at micro-nanoscale for soft matter. Light Advanced Manufacturing, 2022, 3, 151.	5.1	13
6	Compensation of aberrations in holographic microscopes: main strategies and applications. Applied Physics B: Lasers and Optics, 2022, 128, .	2.2	18
7	Deep Learning-Based, Misalignment Resilient, Real-Time Fourier Ptychographic Microscopy Reconstruction of Biological Tissue Slides. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-10.	2.9	16
8	Miscalibration-Tolerant Fourier Ptychography. IEEE Journal of Selected Topics in Quantum Electronics, 2021, 27, 1-17.	2.9	18
9	Tomographic flow cytometry as the key-enabling technology for label-free liquid biopsy. , 2021, , .		0
10	Label-free microfluidic platform for blood analysis based on phase-contrast imaging. , 2021, , .		0
11	Identification of Microplastics Based on the Fractal Properties of Their Holographic Fingerprint. ACS Photonics, 2021, 8, 2148-2157.	6.6	31
12	Three-Dimensional Quantitative Intracellular Visualization of Graphene Oxide Nanoparticles by Tomographic Flow Cytometry. Nano Letters, 2021, 21, 5958-5966.	9.1	34
13	Dehydration of plant cells shoves nuclei rotation allowing for 3D phase-contrast tomography. Light: Science and Applications, 2021, 10, 187.	16.6	21
14	Neuroblastoma Cells Classification Through Learning Approaches by Direct Analysis of Digital Holograms. IEEE Journal of Selected Topics in Quantum Electronics, 2021, 27, 1-9.	2.9	19
15	Optobiology: live cells in optics and photonics. JPhys Photonics, 2021, 3, 012003.	4.6	8
16	Rolling angle recovery of flowing cells in holographic tomography exploiting the phase similarity. Applied Optics, 2021, 60, A277.	1.8	30
17	Holographic tracking and imaging of free-swimming Tetraselmis by off-axis holographic microscopy.. , 2021, , .		2
18	A fractal analysis of the holographic diffraction patterns for detecting microplastics among diatoms. , 2021, , .		0

#	ARTICLE	IF	CITATIONS
19	Label-Free Assessment of the Drug Resistance of Epithelial Ovarian Cancer Cells in a Microfluidic Holographic Flow Cytometer Boosted through Machine Learning. ACS Omega, 2021, 6, 31046-31057.	3.5	26
20	Raw holograms based machine learning for cancer cells classification in microfluidics. , 2021, , .		0
21	Microplastic Identification via Holographic Imaging and Machine Learning. Advanced Intelligent Systems, 2020, 2, 1900153.	6.1	88
22	Learning Diatoms Classification from a Dry Test Slide by Holographic Microscopy. Sensors, 2020, 20, 6353.	3.8	22
23	Perspectives on liquid biopsy for label-free detection of circulating tumor cells through intelligent lab-on-a-chips. View, 2020, 1, 20200034.	5.3	69
24	The Talbot effect in self-assembled red blood cells investigated by digital holography. JPhys Photonics, 2020, 2, 035005.	4.6	7
25	Assembling and rotating erythrocyte aggregates by acoustofluidic pressure enabling full phase-contrast tomography. Lab on A Chip, 2019, 19, 3123-3132.	6.0	14
26	Hydrodynamic Red Blood Cells Deformation by Quantitative Phase Microscopy and Zernike Polynomials. Frontiers in Physics, 2019, 7, .	2.1	15
27	Microfluidic engineering for continuous in-flow cyto-tomography. EPJ Web of Conferences, 2019, 215, 10003.	0.3	0
28	Writing in Photorefractive Crystals by Bio-Lenses. , 2019, , .		0
29	Biological Lenses as a Photomask for Writing Laser Spots into Ferroelectric Crystals. ACS Applied Bio Materials, 2019, 2, 4675-4680.	4.6	7
30	3D imaging in microfluidics: new holographic methods and devices. , 2019, , .		2
31	Adaptive and automatic diffraction order filtering by singular value decomposition in off-axis digital holographic microscopy. Applied Optics, 2019, 58, G155.	1.8	12
32	Comparative study of multi-look processing for phase map de-noising in digital Fresnel holographic interferometry. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2019, 36, A59.	1.5	34
33	Methods for holographic 3D tracking and rotating angle recovery in tomographic flow cytometry. , 2019, , .		0
34	Holographic imaging and acoustofluidics: an advantageous combination. , 2019, , .		0
35	Bio-Lithography by RBC-lenses: DH Wavefront evaluation of imprinted structures in Lithium Niobate. , 2019, , .		0
36	Merging optical and numerical methods for denoising in digital holography. , 2019, , .		1

#	ARTICLE	IF	CITATIONS
37	Anaemias diagnosis by label-free quantitative phase imaging. , 2019, , .		0
38	Label-free imaging of cancer cells by in-flow tomography. , 2019, , .		0
39	Label-free holographic microscopy for in vitro cadmium cytotoxicity testing. , 2019, , .		0
40	Quasi noise-free reconstruction of long-wavelength digital holograms. , 2019, , .		0
41	Holographic imaging for tracking and phase retrieval in acoustophoresis platforms. , 2019, , .		0
42	Phase contrast imaging in acoustophoresis platforms for biological applications. , 2019, , .		0
43	Holographic processing pipeline for tomographic flow cytometry. , 2019, , .		0
44	Advanced label-free cellular identification in flow by collaborative coherent imaging techniques. , 2019, , .		0
45	Identification and classification of biological micro-organisms by holographic learning. , 2019, , .		4
46	Holographic imaging of erythrocytes in acoustofluidic platforms. , 2019, , .		0
47	How holographic imaging can improve machine learning. , 2019, , .		2
48	Diagnostic decision support tool for anemias based on label-free holographic imaging. , 2019, , .		0
49	Holographic imaging for 3D cells morphology in microfluidic flow. , 2019, , .		0
50	Combining ESPI with laser scanning for 3D characterization of racing tyres sections. Optics and Lasers in Engineering, 2018, 104, 71-77.	3.8	26
51	Full-angle tomographic phase microscopy of flowing quasi-spherical cells. Lab on A Chip, 2018, 18, 126-131.	6.0	83
52	Digital Holography, a metrological tool for quantitative analysis: Trends and future applications. Optics and Lasers in Engineering, 2018, 104, 32-47.	3.8	101
53	Label-Free Optical Marker for Red-Blood-Cell Phenotyping of Inherited Anemias. Analytical Chemistry, 2018, 90, 7495-7501.	6.5	49
54	Retrieving acoustic energy densities and local pressure amplitudes in microfluidics by holographic time-lapse imaging. Lab on A Chip, 2018, 18, 1921-1927.	6.0	14

#	ARTICLE	IF	CITATIONS
55	Strategies for reducing speckle noise in digital holography. Light: Science and Applications, 2018, 7, 48.	16.6	182
56	In vitro cytotoxicity evaluation of cadmium by label-free holographic microscopy. Journal of Biophotonics, 2018, 11, e201800099.	2.3	23
57	Biophysical investigation of living monocytes in flow by collaborative coherent imaging techniques. Biomedical Optics Express, 2018, 9, 5194.	2.9	20
58	Tomographic flow cytometry by digital holography. Light: Science and Applications, 2017, 6, e16241-e16241.	16.6	310
59	Biomechanical behavior of RBCs under optically-induced mechanical stress. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2017, 91, 527-533.	1.5	27
60	Computational tomographic phase microscopy. , 2017, , .		0
61	Investigation on microfluidic particles manipulation by holographic 3D tracking strategies. , 2017, , .		0
62	A method for total noise removal in digital holography based on enhanced grouping and sparsity enhancement filtering. , 2017, , .		0
63	RBCs as microlenses: wavefront analysis and applications. , 2017, , .		0
64	Label-free analysis of mononuclear human blood cells in microfluidic flow by coherent imaging tools. Journal of Biophotonics, 2017, 10, 683-689.	2.3	21
65	Digital holography as 3D tracking tool for assessing acoustophoretic particle manipulation. Optics Express, 2017, 25, 17746.	3.4	25
66	On-speckle suppression in IR digital holography. Optics Letters, 2016, 41, 5226.	3.3	39
67	Tomographic phase microscopy of rolling cells in microfluidic flow. , 2016, , .		0
68	A new method for noise suppression in Digital Holography. , 2016, , .		1
69	Quasi noise-free digital holography. Light: Science and Applications, 2016, 5, e16142-e16142.	16.6	124
70	Investigation on dynamics of red blood cells through their behavior as biophotonic lenses. Journal of Biomedical Optics, 2016, 21, 1.	2.6	25
71	Nanomechanics of a fibroblast suspended using point-like anchors reveal cytoskeleton formation. RSC Advances, 2016, 6, 24245-24249.	3.6	11
72	A one-shot denoising method in Digital Holography based on numerical multi-look and 3D block matching filtering. , 2016, , .		2

#	ARTICLE	IF	CITATIONS
73	Holographic imaging of unlabelled sperm cells for semen analysis: a review. Journal of Biophotonics, 2015, 8, 779-789.	2.3	56
74	Red blood cell as optofluidic tunable lens. , 2015, , .		0
75	Investigation on cytoskeleton dynamics for non-adherent cells under point-like stimuli. , 2015, , .		1
76	Wavefronts matching: a novel paradigm for three-dimensional holographic particle tracking. Proceedings of SPIE, 2015, , .	0.8	0
77	Recent advances in holographic 3D particle tracking. Advances in Optics and Photonics, 2015, 7, 713.	25.5	258
78	Diagnostic Tools for Lab-on-Chip Applications Based on Coherent Imaging Microscopy. Proceedings of the IEEE, 2015, 103, 192-204.	21.3	68
79	Cells characterization in microfluidic flows by small angle light scattering and 3D holographic technique. Proceedings of SPIE, 2015, , .	0.8	1
80	Investigation on Axicon Transformation in Digital Holography for Extending the Depth of Focus in Bio-Microfluidics Applications. Journal of Display Technology, 2015, 11, 861-866.	1.2	6
81	Optical signature of erythrocytes by light scattering in microfluidic flows. Lab on A Chip, 2015, 15, 3278-3285.	6.0	43
82	Full 3D morphology of diatoms flowing in a microfluidic channel by digital holographic microscopy. Proceedings of SPIE, 2015, , .	0.8	0
83	Automatic Frames Extraction and Visualization From Noisy Fringe Sequences for Data Recovering in a Portable Digital Speckle Pattern Interferometer for NDI. Journal of Display Technology, 2015, 11, 417-422.	1.2	11
84	Coding Color Three-Dimensional Scenes and Joining Different Objects by Adaptive Transformations in Digital Holography. Journal of Display Technology, 2015, 11, 854-860.	1.2	11
85	Sparsity promoting automatic focusing in digital holography. , 2015, , .		1
86	Improving holographic reconstruction by automatic Butterworth filtering for microelectromechanical systems characterization. Applied Optics, 2015, 54, 3428.	2.1	29
87	Holographic 3D particles tracking methods for bio-microfluidic applications. , 2015, , .		0
88	Color holograms synthesis framework for three-dimensional scene reconstruction. , 2015, , .		0
89	Full 3D morphology of diatoms flowing in a microfluidic channel by digital holographic microscopy. , 2015, , .		1
90	On the role of sparsity in digital holography. , 2015, , .		0

#	ARTICLE	IF	CITATIONS
91	Refocusing criterion via sparsity measurements in digital holography. Optics Letters, 2014, 39, 4719.	3.3	116
92	Investigation on cytoskeleton dynamics for no-adherent cells subjected to point-like stimuli by digital holographic microscopy and holographic optical trapping. Proceedings of SPIE, 2014, , .	0.8	0
93	Holographic microscopy in different turbid layer conditions. , 2014, , .		0
94	Encoding multiple holograms for speckle-noise reduction in optical display. Optics Express, 2014, 22, 25768.	3.4	78
95	Three-dimensional holographic tracking approach based on full-field complex wavefront matching. , 2014, , .		0
96	Multilevel bidimensional empirical mode decomposition: a new speckle reduction method in digital holography. Optical Engineering, 2014, 53, 112314.	1.0	21
97	Holographic tracking of living cells by three-dimensional reconstructed complex wavefronts alignment. Optics Letters, 2014, 39, 2759.	3.3	25
98	Imaging adherent cells in the microfluidic channel hidden by flowing RBCs as occluding objects by a holographic method. Lab on A Chip, 2014, 14, 2499.	6.0	65
99	Particle tracking by full-field complex wavefront subtraction in digital holography microscopy. Lab on A Chip, 2014, 14, 1129-1134.	6.0	66
100	3D morphometry of red blood cells by digital holography. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2014, 85, 1030-1036.	1.5	103
101	Investigation on specific solutions of Gerchbergâ€Saxton algorithm. Optics and Lasers in Engineering, 2014, 52, 206-211.	3.8	20
102	Label-Free 3D Imaging for Lab-on-Chip Biomedical Applications. , 2014, , .		0
103	Morphological analysis framework of living cells by digital holography. , 2014, , .		1
104	Holographic Three-Dimensional Tracking of Micro-objects Exploiting Their Morphological Properties. , 2014, , 555-558.		0
105	3D Full Morphometric Assessment by Holographic Imaging at Lab-on-Chip Scale for Biomedical Applications. , 2014, , .		0
106	Digital holography as a method for 3D imaging and estimating the biovolume of motile cells. Lab on A Chip, 2013, 13, 4512.	6.0	152
107	Automatic Digital Hologram Denoising by Spatiotemporal Analysis of Pixel-Wise Statistics. Journal of Display Technology, 2013, 9, 904-909.	1.2	10
108	New method of 3D tracking of in vitro cells by digital holographic microscopy. , 2013, , .		0

#	ARTICLE	IF	CITATIONS
109	Synthesis and 3D display of multi-wavelengths digital holograms through adaptive transformation. , 2013, , .		0
110	Sparsity-based denoising method of wrapped-phase reconstructions in digital holography. , 2013, , .		0
111	Non-Bayesian noise reduction in digital holography by random resampling masks. Proceedings of SPIE, 2013, , .	0.8	3
112	Random resampling masks: a non-Bayesian one-shot strategy for noise reduction in digital holography. Optics Letters, 2013, 38, 619.	3.3	87
113	Quantitative phase maps denoising of long holographic sequences by using SPADEDH algorithm. Applied Optics, 2013, 52, 1453.	1.8	38
114	New method of holographic three-dimensional tracking of living cells exploiting their morphological properties. , 2013, , .		0
115	Investigation on 3D morphological changes of in vitro cells through digital holographic microscopy. Proceedings of SPIE, 2013, , .	0.8	2
116	Combining Digital Holographic Microscopy with Microfluidics. , 2013, , 193-210.		1
117	Combining digital holographic microscopy and optical tweezers: a new route in microfluidic. , 2012, , .		2
118	3D tracking and phase-contrast imaging by twin-beams digital holographic microscope in microfluidics. , 2012, , .		0
119	SPADEDH: a sparsity-based denoising method of digital holograms without knowing the noise statistics. Optics Express, 2012, 20, 17250.	3.4	53
120	On the holographic 3D tracking of in vitro cells characterized by a highly-morphological change. Optics Express, 2012, 20, 28485.	3.4	72
121	Holographic capability for imaging through scattering colloidal flowing fluids. , 2012, , .		0
122	Multi-wavelengths digital holography: reconstruction, synthesis and display of holograms using adaptive transformation. Optics Letters, 2012, 37, 1445.	3.3	21
123	An alternative reconstructing method in color holography based on digital holograms stretching. Proceedings of SPIE, 2012, , .	0.8	1
124	Computer-generated hologram tailored for dielectrophoretic PDMS patterning. Proceedings of SPIE, 2012, , .	0.8	0
125	A new iterative Fourier transform algorithm for optimal design in holographic optical tweezers. , 2012, , .		0
126	Quantitative phase contrast microscopy in turbid microfluidic channels by digital holography. Proceedings of SPIE, 2012, , .	0.8	0

#	ARTICLE	IF	CITATIONS
127	All-optical microfluidic chips for reconfigurable dielectrophoretic trapping through SLM light induced patterning. Lab on A Chip, 2012, 12, 4449.	6.0	44
128	Microscopy imaging and quantitative phase contrast mapping in turbid microfluidic channels by digital holography. Lab on A Chip, 2012, 12, 3073.	6.0	89
129	Lab on a chip imaging and quantitative phase contrast in turbid microfluidic channel. , 2012, , .		0
130	A new algorithm for digital holograms denoising based on compressed sensing. , 2012, , .		0
131	An autofocus algorithm for digital holograms. , 2012, , .		1
132	Seeing through Turbid Fluids: A New Perspective in Microfluidics. Optics and Photonics News, 2012, 23, 33.	0.5	8
133	Simultaneous Optical Manipulation, 3-D Tracking, and Imaging of Micro-Objects by Digital Holography in Microfluidics. IEEE Photonics Journal, 2012, 4, 451-454.	2.0	41
134	Identification of bovine sperm head for morphometry analysis in quantitative phase-contrast holographic microscopy. Optics Express, 2011, 19, 23215.	3.4	74
135	Twin-beams digital holography for 3D tracking and quantitative phase-contrast microscopy in microfluidics. Optics Express, 2011, 19, 25833.	3.4	69
136	Automatic focusing in digital holography and its application to stretched holograms. Optics Letters, 2011, 36, 1945.	3.3	179
137	Detection and visualization improvement of spermatozoa cells by digital holography. , 2011, , .		4
138	An algorithm for the estimation of the in-focus distance for speckle holograms. , 2011, , .		1
139	New high compression method for digital hologram recorded in microscope configuration. Proceedings of SPIE, 2011, , .	0.8	2
140	Deformation of digital holograms for full control of focus and for extending the depth of field. Journal of Physics: Conference Series, 2010, 206, 012028.	0.4	0
141	Holographic display of synthetic 3D dynamic scene. 3D Research, 2010, 1, 31.	1.8	6
142	Up-link multi-user MIMO capacity in low-power regime. , 2010, , .		6
143	Manipulating Digital Holograms to Modify Phase of Reconstructed Wavefronts. , 2010, , .		0
144	Managing the depth of focus in 3D imaging through controlled distortion of digital holograms. , 2010, , .		1

#	ARTICLE	IF	CITATIONS
145	Synthesis and display of dynamic holographic 3D scenes with real-world objects. Optics Express, 2010, 18, 8806.	3.4	118
146	Compression of digital holograms via adaptive-sparse representation. Optics Letters, 2010, 35, 3883.	3.3	15
147	Controlling depth of focus in 3D image reconstructions by flexible and adaptive deformation of digital holograms. Optics Letters, 2009, 34, 2787.	3.3	53
148	Investigation of angular multiplexing and de-multiplexing of digital holograms recorded in microscope configuration. Optics Express, 2009, 17, 8709.	3.4	45
149	Adaptive deformation of digital holograms for full control of depth-of-focus in 3D imaging. , 2009, , .		0
150	Multiplexing and demultiplexing of digital holograms recorded in microscopic configuration. Proceedings of SPIE, 2009, , .	0.8	1
151	CARWIN42: EVOLUTION OF ARTIFICIAL INTELLIGENCE CONTROLLER AND AEROMECHANICAL SETUP IN SIMULATED RACE CARS. , 2009, , .		0
152	Numerical multiplexing and demultiplexing of digital holographic information for remote reconstruction in amplitude and phase. Optics Letters, 2008, 33, 2629.	3.3	49
153	On the Use of Numeric Integration for Uncertainty Evaluation in Indirect Measurements. , 2007, , .		0