Tatsuki Tahara

List of Publications by Year
in descending order

135	2,309	236925	233421
papers	citations	25 h-index	45 g-index

135	135	135	791
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Parallel two-step phase-shifting digital holography. Applied Optics, 2008, 47, D183.	2.1	193
2	High-speed phase imaging by parallel phase-shifting digital holography. Optics Letters, 2011, 36, 4131.	3.3	157
3	Digital holography and its multidimensional imaging applications: a review. Microscopy (Oxford,) Tj ETQq1 1 0.784314 rgBT /Overlock	1.5	142
4	Parallel phase-shifting digital holographic microscopy. Biomedical Optics Express, 2010, 1, 610.	2.9	94
5	Experimental demonstration of parallel two-step phase-shifting digital holography. Optics Express, 2010, 18, 18975.	3.4	93
6	Incoherent Digital Holography: A Review. Applied Sciences (Switzerland), 2018, 8, 143.	2.5	93
7	Single-shot phase-shifting incoherent digital holography. Journal of Optics (United Kingdom), 2017, 19, 065705.	2.2	90
8	Dual-wavelength phase-shifting digital holography selectively extracting wavelength information from wavelength-multiplexed holograms. Optics Letters, 2015, 40, 2810.	3.3	71
9	Single-shot femtosecond-pulsed phase-shifting digital holography. Optics Express, 2012, 20, 20286.	3.4	56
10	High-Speed Three-Dimensional Microscope for Dynamically Moving Biological Objects Based on Parallel Phase-Shifting Digital Holographic Microscopy. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 1387-1393.	2.9	56
11	Improvement of color reproduction in color digital holography by using spectral estimation technique. Applied Optics, 2011, 50, H177.	2.1	52
12	Roadmap on Recent Progress in FINCH Technology. Journal of Imaging, 2021, 7, 197.	3.0	51
13	Digital Light-in-Flight Recording by Holography by Use of a Femtosecond Pulsed Laser. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 479-485.	2.9	49
14	Multiwavelength digital holography with wavelength-multiplexed holograms and arbitrary symmetric phase shifts. Optics Express, 2017, 25, 11157.	3.4	49
15	Parallel phase-shifting color digital holography using two phase shifts. Applied Optics, 2009, 48, H244.	2.1	48
16	Four-step phase-shifting digital holography simultaneously sensing dual-wavelength information using a monochromatic image sensor. Journal of Optics (United Kingdom), 2015, 17, 125707.	2.2	43
17	Single-shot wavelength-multiplexed digital holography for 3D fluorescent microscopy and other imaging modalities. Applied Physics Letters, 2020, 117, .	3.3	39
18	Four-Wavelength Color Digital Holography. Journal of Display Technology, 2012, 8, 570-576.	1.2	37

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19	Single-shot polarization-imaging digital holography based on simultaneous phase-shifting interferometry. Optics Letters, 2011, 36, 3254.	3.3	36
20	Two-step phase-shifting interferometry for self-interference digital holography. Optics Letters, 2021, 46, 669.	3.3	35
21	Comparative analysis and quantitative evaluation of the field of view and the viewing zone of single-shot phase-shifting digital holography using space-division multiplexing. Optical Review, 2010, 17, 519-524.	2.0	34
22	Multiwavelength three-dimensional microscopy with spatially incoherent light, based on computational coherent superposition. Optics Letters, 2020, 45, 2482.	3.3	32
23	Parallel two-step phase-shifting digital holography using polarization. Optical Review, 2010, 17, 108-113.	2.0	30
24	Single-shot dual-wavelength phase unwrapping in parallel phase-shifting digital holography. Optics Letters, 2014, 39, 2374.	3.3	30
25	Image reconstruction algorithm for recovering high-frequency information in parallel phase-shifting digital holography [Invited]. Applied Optics, 2013, 52, A210.	1.8	29
26	Incoherent color digital holography with computational coherent superposition for fluorescence imaging [Invited]. Applied Optics, 2021, 60, A260.	1.8	27
27	Performance comparison of bilinear interpolation, bicubic interpolation, and B-spline interpolation in parallel phase-shifting digital holography. Optical Review, 2013, 20, 193-197.	2.0	26
28	Multiwavelength-multiplexed phase-shifting incoherent color digital holography. Optics Express, 2020, 28, 10078.	3.4	26
29	Space-Bandwidth Capacity-Enhanced Digital Holography. Applied Physics Express, 2013, 6, 022502.	2.4	26
30	Multiwavelength parallel phase-shifting digital holography using angular multiplexing. Optics Letters, 2013, 38, 2789.	3.3	25
31	Parallel phase-shifting color digital holographic microscopy. 3D Research, 2010, 1, 1.	1.8	22
32	Digital holography based on multiwavelength spatial-bandwidth-extended capturing-technique using a reference arm (Multi-SPECTRA). Optics Express, 2014, 22, 29594.	3.4	22
33	Single-shot incoherent color digital holographic microscopy system with static polarization-sensitive optical elements. Journal of Optics (United Kingdom), 2020, 22, 105702.	2.2	22
34	Single-path single-shot phase-shifting digital holographic microscopy without a laser light source. Optics Express, 2022, 30, 1182.	3.4	22
35	Parallel Phase-Shifting Digital Holography Capable of Simultaneously Capturing Visible and Invisible Three-Dimensional Information. Journal of Display Technology, 2010, 6, 472-478.	1.2	21
36	Spatial-carrier phase-shifting digital holography utilizing spatial frequency analysis for the correction of the phase-shift error. Optics Letters, 2012, 37, 148.	3.3	20

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37	Single-shot dual-illumination phase unwrapping using a single wavelength. Optics Letters, 2012, 37, 4002.	3.3	20
38	Parallel optical-path-length-shifting digital holography. Applied Optics, 2009, 48, H160.	2.1	19
39	Light-in-Flight Recording by Parallel Phase-Shifting Digital Holography. Applied Physics Express, 2013, 6, 092501.	2.4	19
40	Review of Incoherent Digital Holography: Applications to Multidimensional Incoherent Digital Holographic Microscopy and Palm-Sized Digital Holographic Recorderâ€"Holosensor. Frontiers in Photonics, 2022, 2, .	2.4	17
41	Palm-sized single-shot phase-shifting incoherent digital holography system. OSA Continuum, 2021, 4, 2372.	1.8	16
42	Color single-pixel digital holography with a phase-encoded reference wave. Applied Optics, 2019, 58, G149.	1.8	16
43	Construction of a portable parallel phase-shifting digital holography system. Optical Engineering, 2011, 50, 091304.	1.0	15
44	Comparative evaluation of the image-reconstruction algorithms of single-shot phase-shifting digital holography. Journal of Electronic Imaging, 2012, 21, 013021.	0.9	15
45	High Dynamic Range Digital Holography and Its Demonstration by Off-Axis Configuration. IEEE Transactions on Industrial Informatics, 2016, 12, 1658-1663.	11.3	15
46	Fast Image Reconstruction Technique for Parallel Phase-Shifting Digital Holography. Applied Sciences (Switzerland), 2021, 11, 11343.	2.5	15
47	Algorithm for reconstructing wide space-bandwidth information in parallel two-step phase-shifting digital holography. Optics Express, 2012, 20, 19806.	3.4	14
48	Multiwavelength-selective phase-shifting digital holography without mechanical scanning. Applied Optics, 2019, 58, G218.	1.8	14
49	A4-Sized Parallel Phase-Shifting Digital Holography System. Journal of Display Technology, 2014, 10, 132-137.	1.2	13
50	Compensation algorithm for the phase-shift error of polarization-based parallel two-step phase-shifting digital holography. Applied Optics, 2011, 50, B31.	2.1	12
51	Removing the Residual Zeroth-Order Diffraction Wave in Polarization-Based Parallel Phase-Shifting Digital Holography System. Applied Physics Express, 2011, 4, 072501.	2.4	11
52	Space-bandwidth extension in parallel phase-shifting digital holography using a four-channel polarization-imaging camera. Optics Letters, 2013, 38, 2463.	3.3	11
53	Precision limit for simultaneous phase and transmittance estimation with phase-shifting interferometry. Physical Review A, 2021, 104, .	2.5	10
54	Quantitative phase imaging with single-path phase-shifting digital holography using a light-emitting diode. OSA Continuum, 2021, 4, 2918.	1.8	10

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55	Superresolution of interference fringes in parallel four-step phase-shifting digital holography. Optics Letters, 2014, 39, 1673.	3.3	9
56	Digital Holography Using Spectral Estimation Technique. Journal of Display Technology, 2014, 10, 235-242.	1.2	9
57	Single-Shot Multiwavelength Digital Holography Using Angular Multiplexing and Spatial Bandwidth Enhancement for Extending the Field of View. Journal of Display Technology, 2015, 11, 807-813.	1.2	9
58	Multiwavelength off-axis digital holography with an angle of more than 40â€‰â€‰degrees and no beam combiner to generate interference light. Applied Optics, 2017, 56, F200.	2.1	9
59	Multidimension-multiplexed full-phase-encoding holography. Optics Express, 2022, 30, 21582.	3.4	9
60	Algorithm for extracting multiple object waves without Fourier transform from a single image recorded by spatial frequency-division multiplexing and its application to digital holography. Optics Communications, 2017, 402, 462-467.	2.1	8
61	High-Speed Imaging of Gas Flow by Parallel Phase-Shifting Digital Holography. , 2011, , .		8
62	Real-valued diffraction calculations for computational holography [Invited]. Applied Optics, 2022, 61, B96.	1.8	8
63	262500-Frames-Per-Second Phase-Shifting Digital Holography. , 2011, , .		7
64	Parallel phase-shifting dual-illumination phase unwrapping. Optical Review, 2012, 19, 366-370.	2.0	6
65	High-speed image-reconstruction algorithm for a spatially multiplexed image and application to digital holography. Optics Letters, 2018, 43, 2937.	3.3	6
66	Phase-shifting interferometry capable of selectively extracting multiple wavelength information and its applications to sequential and parallel phase-shifting digital holography. , 2014, , .		6
67	Removal of residual images in parallel phase-shifting digital holography. Optical Review, 2013, 20, 7-12.	2.0	5
68	Phase-shift binary digital holography. Optics Letters, 2014, 39, 6375.	3.3	5
69	20000-frames-per-second phase-shifting digital holography. , 2010, , .		4
70	Optical-path-length-shifting color digital holography. Optical Review, 2011, 18, 180-183.	2.0	4
71	Wavelength-Selective Phase-Shifting Digital Holography: Color Three-Dimensional Imaging Ability in Relation to Bit Depth of Wavelength-Multiplexed Holograms. Applied Sciences (Switzerland), 2018, 8, 2410.	2.5	4
72	Multiwavelength Digital Holography and Phase-Shifting Interferometry Selectively Extracting Wavelength Information: Phase-Division Multiplexing (PDM) of Wavelengths. , 2017, , .		3

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73	Improving image quality of parallel phase-shifting digital holography. Journal of Physics: Conference Series, 2008, 139, 012009.	0.4	2
74	High-speed parallel phase-shifting digital holography. , 2011, , .		2
75	Digital holographic spectroscopy using spectral estimation technique. , 2013, , .		2
76	Digital Holography Using High Dynamic-Range Imaging. , 2013, , .		2
77	Space-bandwidth extension in single-shot off-axis digital holography using dual-wavelength phase unwrapping. , 2013, , .		2
78	Image-quality improvement in space-bandwidth capacity-enhanced digital holography. Optical Engineering, 2014, 53, 112313.	1.0	2
79	Multiwavelength digital holography based on phase-division multiplexing using arbitrary symmetric phase shifts. , 2016, , .		2
80	72 fps incoherent two-color digital motion-picture holography system for fluorescence cell imaging. , 2021, , .		2
81	Numerical verification of single-shot two-step phase-shifting color digital holography. , 2009, , .		1
82	Space-bandwidth extension in single-shot digital holography using spatial carrier. , 2013, , .		1
83	Observation of femtosecond light pulse propagation by using digital light-in-flight recording by holography. , 2013, , .		1
84	Single-shot 3D measurement by multi-wavelength parallel phase-shifting digital holography. , 2015, , .		1
85	Single-shot multiwavelength phase unwrapping using a single reference beam and a monochromatic image sensor. Optical Review, 2015, 22, 415-421.	2.0	1
86	Three-wavelength digital holography using spatial frequency-division multiplexing and dual reference arms. , 2016, , .		1
87	Parallel Phase-Shifting Digital Holography Using Femtosecond Laser Pulse. , 2011, , .		1
88	Observation of moving picture of femtosecond light pulse propagation magnified by microscope objective. , 2011, , .		1
89	Image-reconstruction algorithm with no use of Fourier transform in interferometric imaging using spatial frequency-division multiplexing. , 2016, , .		1
90	Dual-Wavelength Digital Holography Based on Phase-Division Multiplexing Using Four Wavelength-Multiplexed Phase-Shifted Holograms and Zeroth-Order Diffraction-Image Suppression. International Journal of Automation Technology, 2017, 11, 806-813.	1.0	1

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91	Phase-shifting interferometry for multidimensional incoherent digital holography and toward ultimately low light sensing. , 2021, , .		1
92	Single-shot incoherent color digital holographic microscopy system without a spatial light modulator. , 2020, , .		1
93	Numerical investigation of quantum fluctuation in phase-shifting interferometry. , 2020, , .		1
94	102 fps incoherent digital motion-picture holography system for sensing of moving fluorescence nanoparticles. , 2021, , .		1
95	Quantitative Evaluation of Reconstructed Images of Parallel Phase-Shifting Digital Holographies. , 2008, , .		0
96	Single-shot optical-path-length-shifting digital holography. , 2009, , .		0
97	Removal of non-diffraction wave in optical-path-length-shifting digital holography. , 2010, , .		0
98	Single-shot phase-shifting digital holographic microscopy. , 2011, , .		0
99	Parallel phase-shifting digital holography. , 2011, , .		0
100	Widening of the field of view in parallel two-step phase-shifting digital holography. , 2011, , .		0
101	Observation of femtosecond light pulse propagation by digital holography. , 2012, , .		0
102	Parallel phase-shifting digital holography system using a high-speed camera. Proceedings of SPIE, 2012, , .	0.8	0
103	Combination of recording wavelengths for improvement of color reproduction of color digital holography using spectral estimation. , 2012, , .		0
104	Method for extending the space bandwidth in parallel phase-shifting digital holography using a commercially available polarization-imaging camera. , 2013, , .		0
105	Single-shot 3-D sensing of micro-meter height by multi-wavelength parallel phase-shifting digital holography. , 2013, , .		0
106	Simultaneous acquisition of 3D shape and multi-spectral image based on parallel phase-shifting dual-illumination phase unwrapping. , 2013, , .		0
107	High-speed multi-color three-dimensional motion picture recording by multi-wavelength parallel phase-shifting digital holography. , 2013, , .		0
108	Algorithm for compensating the non-diffraction wave in the reconstructed image in polarization-based parallel phase-shifting digital holography. , 2013, , .		0

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109	3D motion picture recording by parallel phase-shifting digital holographic microscopy. , 2013, , .		0
110	Multiwavelength digital holography utilizing the space-bandwidth capacity-enhance. , 2014, , .		0
111	Portable parallel phase-shifting digital holography systems. , 2014, , .		0
112	Multi-parameter motion-picture recording with wide space-bandwidth by parallel phase-shifting digital holography. Proceedings of SPIE, 2014, , .	0.8	0
113	Experimental demonstration of parallel phase-shifting digital holography under weak light condition. Proceedings of SPIE, 2014, , .	0.8	0
114	Single-shot multispectral digital holographic microscopy. , 2015, , .		0
115	Single-Shot Three-Wavelength Digital Holography Using Spatial Frequency-Division Multiplexing and Spatial Bandwidth Enhancement. Journal of the Japan Society for Precision Engineering, 2018, 84, 85-88.	0.1	0
116	Multidimensional incoherent digital holography with phase-shifting interferometry. , 2021, , .		0
117	Single-Shot Optical-Path-Length-Shifting Color Digital Holography. , 2010, , .		0
118	Three-Dimensional Imaging by Portable Parallel Phase-Shifting Digital Holography System. , 2011, , .		0
119	Four-dimensional imaging by parallel phase-shifting digital holographic microscopy. , 2011, , .		0
120	High-speed 4-D biological microscope based on parallel phase-shifting digital holography. , 2012, , .		0
121	High-speed 3-D motion-picture recording by parallel phase-shifting digital holography. , 2012, , .		0
122	Parallel phase-shifting digital holography for recording 3-D motion pictures of dynamic phenomena. , 2012, , .		0
123	Experimental Demonstration of Spectral Estimation in Digital Holography. , 2013, , .		0
124	Quantitative Visualization of Dynamic and Transparent Object by Parallel Phase-shifting Digital Holography. Journal of the Japan Society for Precision Engineering, 2013, 79, 622-625.	0.1	0
125	Single-shot color digital holography based on spatial frequency-division multiplexing and space-bandwidth capacity-enhance. , 2014, , .		0
126	Simultaneous high-speed motion-picture sensing of visible and invisible light with a monochromatic image sensor by using digital holography. , 2015, , .		0

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127	Three-wavelength digital holographic microscopy with seven wavelength-multiplexed holograms and arbitrary symmetric phase shifts. , 2017, , .		0
128	Three-wavelength phase-shifting interferometry selectively extracting wavelength information from wavelength-multiplexed images with arbitrary symmetric phase shifts. Proceedings of SPIE, 2017, , .	0.8	0
129	Incoherent digital holography system utilizing single-shot phase-shifting interferometry. , 2017, , .		0
130	Three-wavelength phase-shifting interferometry with six wavelength-multiplexed holograms. , 2018, , .		0
131	Investigations of wavelength resolution and adoptable phase shifts in phase-shifting color digital holography with 2pi ambiguity and wavelength-multiplexed images. , 2018, , .		0
132	Multicolor lensless three-dimensional imaging with full space-bandwidth product and no mechanical scanning by wavelength-selective phase-shifting digital holography. , 2019, , .		0
133	Wavelength-multiplexed phase-shifting incoherent color digital holographic microscope with a halogen lamp. , 2020, , .		0
134	Approaches for simultaneous holographic multicolor motion-picture-microscopy sensing of multiple natural light sources. , 2020, , .		0
135	Multidimensional digital holographic microscopy based on computational coherent superposition for coherent and incoherent light sensing. , 2020, , .		0