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	Real-valued diffraction calculations for computational holography [Invited]. Applied Optics, 2022, 61, B96.	1.8	8
2	Single-path single-shot phase-shifting digital holographic microscopy without a laser light source. Optics Express, 2022, 30, 1182.	3.4	22
3	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
4	Multidimension-multiplexed full-phase-encoding holography. Optics Express, 2022, 30, 21582.	3.4	9
5	Multidimensional incoherent digital holography with phase-shifting interferometry. , 2021, , .		0
6	Palm-sized single-shot phase-shifting incoherent digital holography system. OSA Continuum, 2021, 4, 2372.	1.8	16
7	Roadmap on Recent Progress in FINCH Technology. Journal of Imaging, 2021, 7, 197.	3.0	51
8	Precision limit for simultaneous phase and transmittance estimation with phase-shifting interferometry. Physical Review A, 2021, 104, .	2.5	10
9	Two-step phase-shifting interferometry for self-interference digital holography. Optics Letters, 2021, 46, 669.	3.3	35
10	Incoherent color digital holography with computational coherent superposition for fluorescence imaging [Invited]. Applied Optics, 2021, 60, A260.	1.8	27
11	Quantitative phase imaging with single-path phase-shifting digital holography using a light-emitting diode. OSA Continuum, 2021, 4, 2918.	1.8	10
12	Phase-shifting interferometry for multidimensional incoherent digital holography and toward ultimately low light sensing. , 2021, , .		1
13	102 fps incoherent digital motion-picture holography system for sensing of moving fluorescence nanoparticles. , 2021, , .		1
14	Fast Image Reconstruction Technique for Parallel Phase-Shifting Digital Holography. Applied Sciences (Switzerland), 2021, 11, 11343.	2.5	15
15	72 fps incoherent two-color digital motion-picture holography system for fluorescence cell imaging. , 2021, , .		2
16	Single-shot wavelength-multiplexed digital holography for 3D fluorescent microscopy and other imaging modalities. Applied Physics Letters, 2020, 117, .	3.3	39
17	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
18	Multiwavelength-multiplexed phase-shifting incoherent color digital holography. Optics Express, 2020, 28, 10078.	3.4	26

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19	Multiwavelength three-dimensional microscopy with spatially incoherent light, based on computational coherent superposition. Optics Letters, 2020, 45, 2482.	3.3	32
20	Wavelength-multiplexed phase-shifting incoherent color digital holographic microscope with a halogen lamp. , 2020, , .		0
21	Single-shot incoherent color digital holographic microscopy system without a spatial light modulator. , 2020, , .		1
22	Approaches for simultaneous holographic multicolor motion-picture-microscopy sensing of multiple natural light sources. , 2020, , .		0
23	Numerical investigation of quantum fluctuation in phase-shifting interferometry. , 2020, , .		1
24	Multidimensional digital holographic microscopy based on computational coherent superposition for coherent and incoherent light sensing. , 2020, , .		0
25	Color single-pixel digital holography with a phase-encoded reference wave. Applied Optics, 2019, 58, G149.	1.8	16
26	Multiwavelength-selective phase-shifting digital holography without mechanical scanning. Applied Optics, 2019, 58, G218.	1.8	14
27	Multicolor lensless three-dimensional imaging with full space-bandwidth product and no mechanical scanning by wavelength-selective phase-shifting digital holography. , 2019, , .		0
28	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
29	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
30	High-speed image-reconstruction algorithm for a spatially multiplexed image and application to digital holography. Optics Letters, 2018, 43, 2937.	3.3	6
31	Incoherent Digital Holography: A Review. Applied Sciences (Switzerland), 2018, 8, 143.	2.5	93
32	Digital holography and its multidimensional imaging applications: a review. Microscopy (Oxford,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 2	1.5	142
33	Three-wavelength phase-shifting interferometry with six wavelength-multiplexed holograms. , 2018, , .		0
34	Investigations of wavelength resolution and adoptable phase shifts in phase-shifting color digital holography with 2pi ambiguity and wavelength-multiplexed images. , 2018, , .		0
35	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
36	Single-shot phase-shifting incoherent digital holography. Journal of Optics (United Kingdom), 2017, 19, 065705.	2.2	90

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37	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
38	Multiwavelength digital holography with wavelength-multiplexed holograms and arbitrary symmetric phase shifts. Optics Express, 2017, 25, 11157.	3.4	49
39	Multiwavelength Digital Holography and Phase-Shifting Interferometry Selectively Extracting Wavelength Information: Phase-Division Multiplexing (PDM) of Wavelengths. , 2017, , .		3
40	Three-wavelength digital holographic microscopy with seven wavelength-multiplexed holograms and arbitrary symmetric phase shifts. , 2017, , .		0
41	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
42	Incoherent digital holography system utilizing single-shot phase-shifting interferometry. , 2017, , .		0
43	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
44	Three-wavelength digital holography using spatial frequency-division multiplexing and dual reference arms. , 2016, , .		1
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	Image-reconstruction algorithm with no use of Fourier transform in interferometric imaging using spatial frequency-division multiplexing. , 2016, , .		1
47	Multiwavelength digital holography based on phase-division multiplexing using arbitrary symmetric phase shifts. , 2016, , .		2
48	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
49	Single-shot 3D measurement by multi-wavelength parallel phase-shifting digital holography. , 2015, , .		1
50	Single-shot multispectral digital holographic microscopy. , 2015, , .		0
51	Single-shot multiwavelength phase unwrapping using a single reference beam and a monochromatic image sensor. Optical Review, 2015, 22, 415-421.	2.0	1
52	Dual-wavelength phase-shifting digital holography selectively extracting wavelength information from wavelength-multiplexed holograms. Optics Letters, 2015, 40, 2810.	3.3	71
53	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
54	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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55	Multiwavelength digital holography utilizing the space-bandwidth capacity-enhance. , 2014, , .		0
56	Phase-shift binary digital holography. Optics Letters, 2014, 39, 6375.	3.3	5
57	Digital holography based on multiwavelength spatial-bandwidth-extended capturing-technique using a reference arm (Multi-SPECTRA). Optics Express, 2014, 22, 29594.	3.4	22
58	Portable parallel phase-shifting digital holography systems. , 2014, , .		0
59	Single-shot dual-wavelength phase unwrapping in parallel phase-shifting digital holography. Optics Letters, 2014, 39, 2374.	3.3	30
60	Superresolution of interference fringes in parallel four-step phase-shifting digital holography. Optics Letters, 2014, 39, 1673.	3.3	9
61	Image-quality improvement in space-bandwidth capacity-enhanced digital holography. Optical Engineering, 2014, 53, 112313.	1.0	2
62	A4-Sized Parallel Phase-Shifting Digital Holography System. Journal of Display Technology, 2014, 10, 132-137.	1.2	13
63	Digital Holography Using Spectral Estimation Technique. Journal of Display Technology, 2014, 10, 235-242.	1.2	9
64	Multi-parameter motion-picture recording with wide space-bandwidth by parallel phase-shifting digital holography. Proceedings of SPIE, 2014, , .	0.8	0
65	Experimental demonstration of parallel phase-shifting digital holography under weak light condition. Proceedings of SPIE, 2014, , .	0.8	0
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	Single-shot color digital holography based on spatial frequency-division multiplexing and space-bandwidth capacity-enhance. , 2014, , .		0
68	Space-bandwidth extension in single-shot digital holography using spatial carrier. , 2013, , .		1
69	Digital holographic spectroscopy using spectral estimation technique. , 2013, , .		2
70	Method for extending the space bandwidth in parallel phase-shifting digital holography using a commercially available polarization-imaging camera. , 2013, , .		0
71	Single-shot 3-D sensing of micro-meter height by multi-wavelength parallel phase-shifting digital holography. , 2013, , .		0
72	Simultaneous acquisition of 3D shape and multi-spectral image based on parallel phase-shifting dual-illumination phase unwrapping. , 2013, , .		0

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73	Removal of residual images in parallel phase-shifting digital holography. Optical Review, 2013, 20, 7-12.	2.0	5
74	Digital Holography Using High Dynamic-Range Imaging. , 2013, , .		2
75	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
76	Image reconstruction algorithm for recovering high-frequency information in parallel phase-shifting digital holography [Invited]. Applied Optics, 2013, 52, A210.	1.8	29
77	Observation of femtosecond light pulse propagation by using digital light-in-flight recording by holography. , 2013, , .		1
78	Multiwavelength parallel phase-shifting digital holography using angular multiplexing. Optics Letters, 2013, 38, 2789.	3.3	25
79	Space-bandwidth extension in parallel phase-shifting digital holography using a four-channel polarization-imaging camera. Optics Letters, 2013, 38, 2463.	3.3	11
80	Space-bandwidth extension in single-shot off-axis digital holography using dual-wavelength phase unwrapping. , 2013, , .		2
81	Light-in-Flight Recording by Parallel Phase-Shifting Digital Holography. Applied Physics Express, 2013, 6, 092501.	2.4	19
82	High-speed multi-color three-dimensional motion picture recording by multi-wavelength parallel phase-shifting digital holography. , 2013, , .		0
83	Algorithm for compensating the non-diffraction wave in the reconstructed image in polarization-based parallel phase-shifting digital holography. , 2013, , .		0
84	3D motion picture recording by parallel phase-shifting digital holographic microscopy. , 2013, , .		0
85	Space-Bandwidth Capacity-Enhanced Digital Holography. Applied Physics Express, 2013, 6, 022502.	2.4	26
86	Experimental Demonstration of Spectral Estimation in Digital Holography. , 2013, , .		0
87	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
88	Single-shot femtosecond-pulsed phase-shifting digital holography. Optics Express, 2012, 20, 20286.	3.4	56
89	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
90	Algorithm for reconstructing wide space-bandwidth information in parallel two-step phase-shifting digital holography. Optics Express, 2012, 20, 19806.	3.4	14

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91	Single-shot dual-illumination phase unwrapping using a single wavelength. Optics Letters, 2012, 37, 4002.	3.3	20
92	Comparative evaluation of the image-reconstruction algorithms of single-shot phase-shifting digital holography. Journal of Electronic Imaging, 2012, 21, 013021.	0.9	15
93	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
94	Parallel phase-shifting dual-illumination phase unwrapping. Optical Review, 2012, 19, 366-370.	2.0	6
95	Four-Wavelength Color Digital Holography. Journal of Display Technology, 2012, 8, 570-576.	1.2	37
96	Observation of femtosecond light pulse propagation by digital holography. , 2012, , .		0
97	Parallel phase-shifting digital holography system using a high-speed camera. Proceedings of SPIE, 2012, , .	0.8	0
98	Combination of recording wavelengths for improvement of color reproduction of color digital holography using spectral estimation. , 2012, , .		0
99	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
100	High-speed 4-D biological microscope based on parallel phase-shifting digital holography. , 2012, , .		0
101	High-speed 3-D motion-picture recording by parallel phase-shifting digital holography. , 2012, , .		0
102	Parallel phase-shifting digital holography for recording 3-D motion pictures of dynamic phenomena. , 2012, , .		0
103	Single-shot phase-shifting digital holographic microscopy. , 2011, , .		0
104	High-speed parallel phase-shifting digital holography. , 2011, , .		2
105	Parallel phase-shifting digital holography. , 2011, , .		0
106	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
107	Improvement of color reproduction in color digital holography by using spectral estimation technique. Applied Optics, 2011, 50, H177.	2.1	52
108	Single-shot polarization-imaging digital holography based on simultaneous phase-shifting interferometry. Optics Letters, 2011, 36, 3254.	3.3	36

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109	High-speed phase imaging by parallel phase-shifting digital holography. Optics Letters, 2011, 36, 4131.	3.3	157
110	Widening of the field of view in parallel two-step phase-shifting digital holography. , 2011, , .		0
111	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
112	Optical-path-length-shifting color digital holography. Optical Review, 2011, 18, 180-183.	2.0	4
113	262500-Frames-Per-Second Phase-Shifting Digital Holography. , 2011, , .		7
114	Construction of a portable parallel phase-shifting digital holography system. Optical Engineering, 2011, 50, 091304.	1.0	15
115	Parallel Phase-Shifting Digital Holography Using Femtosecond Laser Pulse. , 2011, , .		1
116	Three-Dimensional Imaging by Portable Parallel Phase-Shifting Digital Holography System. , 2011, , .		0
117	High-Speed Imaging of Gas Flow by Parallel Phase-Shifting Digital Holography. , 2011, , .		8
118	Four-dimensional imaging by parallel phase-shifting digital holographic microscopy. , 2011, , .		0
119	Observation of moving picture of femtosecond light pulse propagation magnified by microscope objective. , 2011, , .		1
120	Parallel phase-shifting color digital holographic microscopy. 3D Research, 2010, 1, 1.	1.8	22
121	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
122	Parallel two-step phase-shifting digital holography using polarization. Optical Review, 2010, 17, 108-113.	2.0	30
123	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
124	Removal of non-diffraction wave in optical-path-length-shifting digital holography. , 2010, , .		0
125	20000-frames-per-second phase-shifting digital holography. , 2010, , .		4
126	Parallel phase-shifting digital holographic microscopy. Biomedical Optics Express, 2010, 1, 610.	2.9	94

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127	Experimental demonstration of parallel two-step phase-shifting digital holography. Optics Express, 2010, 18, 18975.	3.4	93
128	Single-Shot Optical-Path-Length-Shifting Color Digital Holography. , 2010, , .		0
129	Single-shot optical-path-length-shifting digital holography. , 2009, , .		0
130	Parallel optical-path-length-shifting digital holography. Applied Optics, 2009, 48, H160.	2.1	19
131	Parallel phase-shifting color digital holography using two phase shifts. Applied Optics, 2009, 48, H244.	2.1	48
132	Numerical verification of single-shot two-step phase-shifting color digital holography. , 2009, , .		1
133	Parallel two-step phase-shifting digital holography. Applied Optics, 2008, 47, D183.	2.1	193
134	Quantitative Evaluation of Reconstructed Images of Parallel Phase-Shifting Digital Holographies. , 2008, , .		0
135	Improving image quality of parallel phase-shifting digital holography. Journal of Physics: Conference Series, 2008, 139, 012009.	0.4	2