Takanori Nomura

List of Publications by Year
in descending order

140 papers	3,435 citations	236833 25 h-index	149623 56 g-index
144 all docs	144 docs citations	144 times ranked	1182 citing authors

#	Article	IF	Citations
1	Securing information by use of digital holography. Optics Letters, 2000, 25, 28.	1.7	465
2	Roadmap on optical security. Journal of Optics (United Kingdom), 2016, 18, 083001.	1.0	338
3	Optical encryption using a joint transform correlator architecture. Optical Engineering, 2000, 39, 2031.	0.5	305
4	Optical Techniques for Information Security. Proceedings of the IEEE, 2009, 97, 1128-1148.	16.4	295
5	Polarization encoding for optical security systems. Optical Engineering, 2000, 39, 2439.	0.5	175
6	Roadmap on digital holography [Invited]. Optics Express, 2021, 29, 35078.	1.7	133
7	Phase-shifting digital holography with a phase difference between orthogonal polarizations. Applied Optics, 2006, 45, 4873.	2.1	105
8	Image quality improvement of digital holography by superposition of reconstructed images obtained by multiple wavelengths. Applied Optics, 2008, 47, D38.	2.1	98
9	Polarization imaging of a 3D object by use of on-axis phase-shifting digital holography. Optics Letters, 2007, 32, 481.	1.7	81
10	Secure optical data storage with random phase key codes by use of a configuration of a joint transform correlator. Applied Optics, 2003, 42, 1508.	2.1	75
11	Optical encryption system with a binary key code. Applied Optics, 2000, 39, 4783.	2.1	65
12	Single-exposure phase-shifting digital holography using a random-phase reference wave. Optics Letters, 2010, 35, 2281.	1.7	60
13	Speckle reduction in holographic projection by random pixel separation with time multiplexing. Applied Optics, 2014, 53, 8182.	2.1	51
14	Roadmap on Recent Progress in FINCH Technology. Journal of Imaging, 2021, 7, 197.	1.7	51
15	Object recognition by use of polarimetric phase-shifting digital holography. Optics Letters, 2007, 32, 2146.	1.7	44
16	Speckle Reduction by Spatial-Domain Mask in Digital Holography. Journal of Display Technology, 2016, 12, 315-322.	1.3	42
17	Holographic Shack–Hartmann wavefront sensor based on the correlation peak displacement detection method for wavefront sensing with large dynamic range. Optica, 2015, 2, 411.	4.8	40
18	Recording spatially incoherent Fourier hologram using dual channel rotational shearing interferometer. Applied Optics, 2015, 54, A18.	0.9	38

#	Article	IF	Citations
19	Multilevel recording of complex amplitude data pages in a holographic data storage system using digital holography. Optics Express, 2016, 24, 21001.	1.7	34
20	Multimodal Imaging Based on Digital Holography. Proceedings of the IEEE, 2017, 105, 906-923.	16.4	34
21	Motionless optical scanning holography. Optics Letters, 2020, 45, 3184.	1.7	31
22	Hybrid optical encryption of a 3-D object using a digital holographic technique. Optical Engineering, 2004, 43, 2228.	0.5	30
23	Dynamic recording of a digital hologram with single exposure by a wave-splitting phase-shifting method. Optical Review, 2010, 17, 176-180.	1.2	26
24	Shack–Hartmann wavefront sensor with large dynamic range by adaptive spot search method. Applied Optics, 2016, 55, 5413.	2.1	26
25	Deep-learning-based binary hologram. Applied Optics, 2020, 59, 7103.	0.9	26
26	Design of high-resolution and multilevel reference pattern for improvement of both light utilization efficiency and signal-to-noise ratio in coaxial holographic data storage. Applied Optics, 2014, 53, 3773.	0.9	25
27	Multiplexed recording with uncorrelated computer-generated reference patterns in coaxial holographic data storage. Optics Letters, 2015, 40, 2161.	1.7	24
28	Single-shot in-line Fresnel incoherent holography using a dual-focus checkerboard lens. Applied Optics, 2020, 59, 6612.	0.9	24
29	Single-exposure phase-shifting digital holography using a random-complex-amplitude encoded reference wave. Applied Optics, 2013, 52, A161.	0.9	23
30	Transport-of-intensity holographic data storage based on a computer-generated hologram. Applied Optics, 2018, 57, 8836.	0.9	23
31	Multi-Spectral Holographic Three-Dimensional Image Fusion Using Discrete Wavelet Transform. Journal of Display Technology, 2006, 2, 411-417.	1.3	22
32	Phase-Encoded Joint Transform Correlator to Reduce the Influence of Extraneous Signals. Applied Optics, 1998, 37, 3651.	2.1	21
33	Linear phase encoding for holographic data storage with a single phase-only spatial light modulator. Applied Optics, 2016, 55, 2565.	2.1	21
34	Orthogonal polarization encoding for reduction of interpixel cross talk in holographic data storage. Optics Express, 2017, 25, 22425.	1.7	20
35	Transport-of-intensity computational ghost imaging. Applied Optics, 2018, 57, 4451.	0.9	20
36	Single-shot higher-order transport-of-intensity quantitative phase imaging based on computer-generated holography. Optics Express, 2021, 29, 4783.	1.7	20

#	ARTICLE	IF	CITATIONS
37	Computer-generated-hologram-based holographic data storage using common-path off-axis digital holography. Optics Letters, 2020, 45, 2796.	1.7	20
38	Twin-image reduction method using a diffuser for phase imaging in-line digital holography. Applied Optics, 2018, 57, 5652.	0.9	19
39	Simultaneous measurement of refractive index and thickness distributions using low-coherence digital holography and vertical scanning. Journal of Optics (United Kingdom), 2014, 16, 045403.	1.0	18
40	Binary computer-generated-hologram-based holographic data storage. Applied Optics, 2019, 58, 3083.	0.9	18
41	Synthesis method from low-coherence digital holograms for improvement of image quality in holographic display. Applied Optics, 2013, 52, 3838.	0.9	17
42	Study of reference waves in single-exposure generalized phase-shifting digital holography. Applied Optics, 2013, 52, 4097.	0.9	17
43	Spatially divided phase-shifting motionless optical scanning holography. OSA Continuum, 2020, 3, 3523.	1.8	17
44	Multilayer recording holographic data storage using a varifocal lens generated with a kinoform. Optics Letters, 2015, 40, 5419.	1.7	16
45	Coaxial polarization holographic data recording on a polarization-sensitive medium. Optics Letters, 2016, 41, 4919.	1.7	16
46	Binary Fourier phase-only correlation. Optics Letters, 1990, 15, 810.	1.7	15
47	Design of input phase mask for the space bandwidth of the optical encryption system. Optical Engineering, 2006, 45, 017006.	0.5	15
48	Quantitative phase imaging using transport of intensity equation with multiple bandpass filters. Applied Optics, 2016, 55, 5180.	2.1	15
49	Deep ghost phase imaging. Applied Optics, 2020, 59, 3376.	0.9	15
50	Three-dimensional fluorescence imaging through dynamic scattering media by motionless optical scanning holography. Applied Physics Letters, 2021, 119, .	1.5	15
51	<title>Digital holographic data reconstruction with data compression</title>. , 2001, , .		14
52	Selective calculation for the improvement of reconstructed images in single-exposure generalized phase-shifting digital holography. Optical Engineering, 2014, 53, 1.	0.5	14
53	Digital holographic three-dimensional Mueller matrix imaging. Applied Optics, 2015, 54, 5591.	2.1	14
54	Shift multiplexing with a spherical wave in holographic data storage based on a computer-generated hologram. Applied Optics, 2017, 56, F31.	2.1	14

#	Article	IF	Citations
55	Object plane detection and phase-amplitude imaging based on transport of intensity equation. Optical Review, 2017, 24, 626-633.	1.2	13
56	Incoherent-only joint-transform correlator. Applied Optics, 1995, 34, 1420.	2.1	11
57	Phase imaging based on modified transport of intensity equation using liquid crystal variable retarder with partial coherent illumination. Optical Review, 2020, 27, 142-148.	1.2	11
58	Generalized sequential four-step phase-shifting color digital holography. Applied Optics, 2017, 56, 6851.	0.9	10
59	Transport-of-intensity phase imaging with polarization directed flat lenses. Applied Optics, 2020, 59, 2011.	0.9	10
60	Digital super-resolution holographic data storage based on Hermitian symmetry for achieving high areal density. Optics Express, 2017, 25, 1326.	1.7	10
61	Shortening method for optical reconstruction distance in digital holographic display with phase hologram. Optical Engineering, 2013, 52, 123101.	0.5	9
62	Speckle Reduction in Hologram Generation Based on Spherical Waves Synthesis Using Low-Coherence Digital Holography. Journal of Display Technology, 2015, 11, 867-872.	1.3	9
63	Common-path angular-multiplexing holographic data storage based on computer-generated holography. Optics Letters, 2021, 46, 2920.	1.7	9
64	Computational ghost imaging with designed low spatial frequency masks. Applied Optics, 2018, 57, 9375.	0.9	9
65	Coaxial Holographic Memory with Designed Reference Pattern on the Basis of Nyquist Aperture for High Density Recording. Japanese Journal of Applied Physics, 2013, 52, 09LD09.	0.8	8
66	Single-shot three-dimensional shape measurement by low-coherent optical path difference digital holography. Applied Optics, 2014, 53, G19.	0.9	7
67	Design method of input phase mask to improve light use efficiency and reconstructed image quality for holographic memory. Applied Optics, 2014, 53, 4136.	0.9	7
68	Spatially incoherent Fourier digital holography by four-step phase-shifting rotational shearing interferometer and its image quality. Optical Review, 2017, 24, 351-360.	1.2	7
69	Hartley transformation for hybrid pattern matching. Applied Optics, 1990, 29, 4345.	2.1	6
70	Multi-wavelength holographic image fusions using discrete wavelet transform. , 2005, , .		6
71	Design of Reference Pattern and Input Phase Mask for Coaxial Holographic Memory. Japanese Journal of Applied Physics, 2011, 50, 09ME03.	0.8	6
72	Correlation-Based Multiplexing of Complex Amplitude Data Pages in a Holographic Storage System Using Digital Holographic Techniques. Polymers, 2017, 9, 375.	2.0	6

#	Article	IF	Citations
73	High temporal and spatial resolution single-shot digital holography with Fresnel domain filtering using witch's hat illumination. Applied Optics, 2020, 59, 694.	0.9	6
74	Common-path off-axis single-pixel holographic imaging. Optics Express, 2022, 30, 18134.	1.7	6
75	Hybrid Optical Encryption of a 3D Object by Use of a Digital Holographic Technique. , 2006, , 85-95.		5
76	Multiplexed recording based on the reference wave correlation for computer-generated holographic data storage. Optical Review, 2020, 27, 391-398.	1.2	5
77	Designing a Binary Fourier-Phase-Only Correlation Filter Using a Simulated Annealing Algorithm. Japanese Journal of Applied Physics, 1990, 29, L2074-L2076.	0.8	4
78	Deformation measurement by digital holographic interferometry. , 2003, , .		4
79	Refractive index tomography based on optical coherence tomography and tomographic reconstruction algorithm. Japanese Journal of Applied Physics, 2017, 56, 09NB03.	0.8	4
80	Phase-unwrapping-free and iterative reconstruction methods for propagated refractive index tomography. Japanese Journal of Applied Physics, 2018, 57, 09SB03.	0.8	4
81	Single-shot compressive hyperspectral imaging with dispersed and undispersed light using a generally available grating. Applied Optics, 2022, 61, 1106.	0.9	4
82	Refractive index & physical thickness distributions measurement and consideration of dependence of measurement accuracy on scanning interval using low-coherence digital holography. , 2013, , .		3
83	Complex amplitude mapping based on adaptive autofocusing algorithm. Optical Review, 2019, 26, 342-348.	1.2	3
84	Pupil-modulation ghost phase imaging. Applied Optics, 2021, 60, 4398.	0.9	3
85	<title>Securing information using a digital holographic technique</title>. , 2000, 4089, 619.		2
86	Applications of Digital Holography for Information Security. Advanced Sciences and Technologies for Security Applications, 2005, , 241-269.	0.4	2
87	Single-exposure digital holography by a generalized wave-splitting phase-shifting method. , 2010, , .		2
88	Wavefront measurement with large dynamic range using holographic Shack-Hartmann wavefront sensor. , 2015, , .		2
89	Fast Hologram Pattern Generation by Adaptive Point-Spread Spherical Wave Synthesis. Journal of Display Technology, 2016, 12, 815-821.	1.3	2
90	Complex amplitude-modulated data page recording in coaxial holographic data storage with phase-shifting digital holography. , 2014, , .		2

#	Article	IF	Citations
91	Optical Reconstruction of Digital Hologram Using Spatial Light Modulator for Binocular Stereopsis. , 2011, , .		2
92	Design of Reference Pattern and Input Phase Mask for Coaxial Holographic Memory. Japanese Journal of Applied Physics, 2011, 50, 09ME03.	0.8	2
93	Large dynamic range wavefront sensing using Shack-Hartmann wavefront sensor based on pattern correlations. , 2018, , .		2
94	Haar wavelet transform with interband prediction and its application to image coding. Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English Translation of Denshi) Tj ETQq0 0 0rgBT /Overlock 10 Tf		
95	Polarization Encoding for an Optical Security System. , 2005, , 207-220.		1
96	Optical Image Encryption Using Optimized Keys. , 2005, , 193-205.		1
97	Improvement of viewing-zone angle and image quality of digital holograms. Journal of Physics: Conference Series, 2010, 206, 012029.	0.3	1
98	Extended focused imaging in digital holography by spatial-domain mask method. Journal of Optics (United Kingdom), 2015, 17, 125706.	1.0	1
99	Numerical evaluation of multilayer holographic data storage with a varifocal lens generated with a spatial light modulator. Proceedings of SPIE, 2015, , .	0.8	1
100	Holographic storage system based on digital holography for recording a phase data page in a compact optical setup. Proceedings of SPIE, 2016, , .	0.8	1
101	Fast and accurate phase-unwrapping algorithm based on the transport of intensity equation: comment. Applied Optics, 2021, 60, 7500.	0.9	1
102	Single-shot higher-order transport-of-intensity quantitative phase imaging using deep learning. Applied Optics, 2021, 60, 8802.	0.9	1
103	OS01W0302 Fringe analysis by fourier transform phase-shifting method for four-beam moire interferometry. The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics, 2003, 2003.2, OS01W0302- OS01W0302.	0.0	1
104	Transport of intensity phase imaging for pure phase objects in computational ghost imaging. , 2018, , .		1
105	Phase imaging in-line digital holography with random phase modulation. , 2019, , .		1
106	Layered blind deconvolution using subband filter banks. Optical Review, 1997, 4, 164.	1.2	0
107	Layered blind deconvolution using subband filter banks. Optical Review, 1997, 4, A164.	1.2	0
108	Speckles removal in digital holography using multiple wavelengths/distances from an object. , 2006, , .		0

#	Article	IF	Citations
109	Design of an Input Phase Mask of the Optical Encryption System and its Application to Certification. AIP Conference Proceedings, 2006, , .	0.3	0
110	Polarimetric Imaging of a Three-Dimensional Object by Use of Digital Holography. AIP Conference Proceedings, 2007, , .	0.3	0
111	Wave-splitting phase-shifting digital holography by use of a retarder array. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	0
112	Polarization imaging of a 3D object by use of digital holography and its application. Proceedings of SPIE, 2010, , .	0.8	0
113	Image Quality Improvement of Digital Holography by Multiple Wavelengths or Multiple Holograms. , 0, , .		0
114	Single-shot phase-shifting digital holography using a conventional camera. , 2011, , .		0
115	Expansion of dynamic range in Shack-Hartmann wavefront sensor using dual microlens array. , 2015, , .		0
116	Single-exposure generalized phase-shifting digital holography. , 2015, , .		0
117	Recording spatially incoherent hologram using rotational shearing interferometer with a lens for the parallel shear. , 2015, , .		0
118	Reconstruction of incoherent Fresnel-like hologram by a rotational shearing interferometer. Proceedings of SPIE, 2015, , .	0.8	0
119	Recording a phase data page in super-resolution holographic data storage for high light efficiency. , 2015, , .		0
120	Incoherent holography to obtain depth information by a rotational shearing interferometer. , 2015, , .		0
121	Image quality improvement of digital holography by use of various rectangle apertures. , 2015, , .		0
122	Mueller matrix imaging by use of digital holography. , 2015, , .		0
123	Generalized phase-shifting digital holography for single-exposure. , 2015, , .		0
124	Numerical evaluation of shift multiplexing using a spherical wave in a holographic memory based on a computer-generated hologram. Proceedings of SPIE, 2016, , .	0.8	0
125	Incoherent holography by a Michelson type interferometer with a lens for a radial shear. Proceedings of SPIE, 2016, , .	0.8	0
126	Generalized phase-shifting color digital holography. , 2016, , .		0

#	Article	IF	Citations
127	Spatially incoherent Fourier digital holography. Proceedings of SPIE, 2017, , .	0.8	0
128	219 Real-time Stress and Strain Analysis Using Phase-shifting Photoelastic Coating Method. Proceedings of the 1992 Annual Meeting of JSME/MMD, 2001, 2001, 153-154.	0.0	0
129	OS1(4)-16(OS01W0302) Fringe Analysis by Fourier Transform Phase-Shifting Method for Four-Beam Moire Interferometry. The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics, 2003, 2003, 146.	0.0	0
130	Hybrid optical encryption of a three-dimensional object by use of digital holography. , 2003, , .		0
131	Digital Holography Using Wavefront-Splitting Phase-Shifting Method. The Review of Laser Engineering, 2007, 35, 363-367.	0.0	0
132	Preface to Topical Papers on Digital Recording and Reconstruction of Three-Dimensional Information -Leading Edge of Digital Holography-. The Review of Laser Engineering, 2007, 35, 357-357.	0.0	0
133	Image Information Processing Technique by Use of Digital Holography. The Review of Laser Engineering, 2008, 36, 195-196.	0.0	0
134	Polarimetric Imaging of 3-D Object by Use of Wavefront-Splitting Phase-Shifting Digital Holography. , 2009, , 333-344.		0
135	Quasi-Cylindrical Digital Hologram by Superposition of Digital Holograms Recorded on Concyclic Positions. , 2009, , .		0
136	Improvement of Viewing-Zone Angle and Image Quality of Digital Holograms. , 2010, , 155-161.		0
137	Single-Exposure Phase-Shifting Digital Holography Using Random Phase Reference Wave. , 2011, , .		0
138	Speckle Reduction in Holographic Display. The Review of Laser Engineering, 2016, 44, 429.	0.0	0
139	Deep-learning-based phase retrieval for pure phase objects in computational ghost imaging. , 2018, , .		0
140	[Invited Paper] Enhanced Recording Density via Multilevel Phase Retrieval and Correlation-based Multiplexed Recording in Computer-generated Holographic Data Storage. ITE Transactions on Media Technology and Applications, 2022, 10, 69-74.	0.3	0