

Pavel A Cheremkhin

List of Publications by Year in descending order

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papers

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87
times ranked

175
citing authors

#	ARTICLE	IF	CITATIONS
1	Comparative appraisal of global and local thresholding methods for binarisation of off-axis digital holograms. <i>Optics and Lasers in Engineering</i> , 2019, 115, 119-130.	2.0	38
2	QR code optical encryption using spatially incoherent illumination. <i>Laser Physics Letters</i> , 2017, 14, 026202.	0.6	35
3	Modified temporal noise measurement method with automatic segmentation of nonuniform target, its accuracy estimation, and application to cameras of different types. <i>Optical Engineering</i> , 2014, 53, 102107.	0.5	28
4	Wavelet compression of off-axis digital holograms using real/imaginary and amplitude/phase parts. <i>Scientific Reports</i> , 2019, 9, 7561.	1.6	21
5	Estimating how the dynamic range and noise of the recording cameras affect the quality of digital holograms. <i>Journal of Optical Technology (A Translation of Opticheskii Zhurnal)</i> , 2013, 80, 301.	0.2	20
6	Measurement of noises and modulation transfer function of cameras used in optical-digital correlators. , 2012, , .		18
7	Optical Encryption of Arrays of Binary Digits in Spatially Incoherent Light. <i>Russian Physics Journal</i> , 2016, 58, 1394-1401.	0.2	18
8	Quality of reconstruction of compressed off-axis digital holograms by frequency filtering and wavelets. <i>Applied Optics</i> , 2018, 57, A55.	0.9	18
9	Evaluation of Diffraction Efficiency and Image Quality in Optical Reconstruction of Digital Fresnel Holograms. <i>Radiophysics and Quantum Electronics</i> , 2015, 57, 635-649.	0.1	17
10	Method of optical image coding by time integration. , 2012, , .		15
11	Numerical and optical reconstruction of digital off-axis Fresnel holograms. , 2012, , .		14
12	Methods of Compression of Digital Holograms. <i>Physics Procedia</i> , 2015, 73, 328-332.	1.2	13
13	Demonstration of digital hologram recording and 3D-scenes reconstruction in real-time. , 2016, , .		13
14	Comparative analysis of off-axis digital hologram binarization by error diffusion. <i>Journal of Optics (United Kingdom)</i> , 2021, 23, 075703.	1.0	13
15	Reduction of phase temporal fluctuations caused by digital voltage addressing in LC SLM "HoloEye PLUTO VIS" for holographic applications. <i>Proceedings of SPIE</i> , 2014, , .	0.8	12
16	Machine learning methods for digital holography and diffractive optics. <i>Procedia Computer Science</i> , 2020, 169, 440-444.	1.2	12
17	QR-code optical encryption in the scheme with spatially incoherent illumination based on two micromirror light modulators. <i>Quantum Electronics</i> , 2020, 50, 195-196.	0.3	12
18	A technique of measuring spectral characteristics of detector arrays in amateur and professional photocaleras and their application for problems of digital holography. <i>Optics and Spectroscopy (English Translation of Optika i Spektroskopiya)</i> , 2013, 115, 557-566.	0.2	10

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19	Generation of keys for image optical encryption in spatially incoherent light aimed at reduction of image decryption error. , 2014, , .		10
20	Use of spectral characteristics of DSLR cameras with Bayer filter sensors. Journal of Physics: Conference Series, 2014, 536, 012021.	0.3	10
21	Measurement of characteristics and phase modulation accuracy increase of LC SLM "HoloEye PLUTO VIS". Journal of Physics: Conference Series, 2014, 536, 012011.	0.3	10
22	Comparison of kinoform synthesis methods for image reconstruction in Fourier plane. , 2014, , .		10
23	A method for measuring digital camera noise by automatic segmentation of a striped target. Computer Optics, 2021, 45, .	1.3	9
24	Fast measurement of temporal noise of digital camera's photosensors. Proceedings of SPIE, 2015, , .	0.8	8
25	Shot Noise and Fixed-Pattern Noise Effects on Digital Hologram Reconstruction. Optics and Lasers in Engineering, 2021, 139, 106461.	2.0	8
26	Lensless optical encryption with speckle-noise suppression and QR codes. Applied Optics, 2021, 60, 7336.	0.9	8
27	Iterative synthesis of binary inline Fresnel holograms for high-quality reconstruction in divergent beams with DMD. Optics and Lasers in Engineering, 2022, 150, 106859.	2.0	8
28	Adaptive Digital Hologram Binarization Method Based on Local Thresholding, Block Division and Error Diffusion. Journal of Imaging, 2022, 8, 15.	1.7	8
29	Increasing quality of computer-generated kinoforms using direct search with random trajectory method. , 2014, , .		7
30	Comparison of methods of suppression of undesired diffraction orders at numerical reconstruction of digital Fresnel holograms. , 2014, , .		7
31	Numerical comparison of scalar and vector methods of digital hologram compression. Proceedings of SPIE, 2016, , .	0.8	7
32	High-speed implementation of holographic and diffraction elements using digital micromirror devices. Quantum Electronics, 2020, 50, 667-674.	0.3	7
33	Improvement of quality of optical reconstruction of digital Fourier holograms displayed on phase-only SLM by its digital preprocessing. , 2014, , .		6
34	Optical reconstruction of digital off-axis Fresnel holograms using phase-only LCOS SLM "HoloEye PLUTO VIS". Journal of Physics: Conference Series, 2014, 536, 012008.	0.3	6
35	Multiple-wavelength Color Digital Holography for Monochromatic Image Reconstruction. Physics Procedia, 2015, 73, 301-307.	1.2	6
36	Application of additional input amplitude masks in schemes of optical image encryption with spatially incoherent illumination. Computer Optics, 2017, 41, 391-398.	1.3	6

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37	Estimation of number of resolvable signal levels of photo- and videocameras. Journal of Physics: Conference Series, 2014, 536, 012023.	0.3	5
38	Increasing signal-to-noise ratio of registered images by using light spatial noise portrait of camera's photosensor. , 2014, , .		5
39	Modeling of effect of LC SLM phase fluctuations on kinoforms optical reconstruction quality. , 2015, , .		5
40	Increasing reconstruction quality of diffractive optical elements displayed with LC SLM. , 2015, , .		5
41	Asymmetric image optical encryption under spatially incoherent illumination. Laser Physics Letters, 2020, 17, 025204.	0.6	5
42	Iterative Binarization of Digital Holograms Using Error Diffusion Method. Optoelectronics, Instrumentation and Data Processing, 2020, 56, 205-211.	0.2	5
43	Measurement of Modulation of the Phase Liquid-Crystal Light Modulator Santec SLM-200 and Analysis of Its Applicability for the Reconstruction of Images from Diffraction Elements. Measurement Techniques, 2021, 64, 346-351.	0.2	5
44	Methods of compression of digital holograms, based on 1-level wavelet transform. Journal of Physics: Conference Series, 2016, 737, 012071.	0.3	4
45	Measuring random sensor noise in cameras. SPIE Newsroom, 0, , .	0.1	4
46	Binarization of digital holograms by thresholding and error diffusion techniques. , 2019, , .		4
47	Application of a Digital Micromirror Device for Optical Encryption with Time Integration. Optoelectronics, Instrumentation and Data Processing, 2020, 56, 134-139.	0.2	4
48	Optical encryption in spatially-incoherent light using two LC SLMs for both information input and encryption element imaging. Proceedings of SPIE, 2014, , .	0.8	3
49	Dynamic Reconstruction of 3D-scenes from Registered Digital Holograms. Physics Procedia, 2015, 73, 333-337.	1.2	3
50	Impact of DMD-SLMs errors on reconstructed Fourier holograms quality. Journal of Physics: Conference Series, 2016, 737, 012074.	0.3	3
51	Recognition of objects radiating with broad spectrum in dispersive holographic correlator. Optics Communications, 2018, 421, 73-78.	1.0	3
52	New customizable digital data container for optical cryptosystems. Journal of Optics (United Tj ETQq0 0 0 rgBT /Oyerlock 10 Tf 50 142	1.0	3
53	Asymmetric optical encryption technique implementing spatially incoherent illumination. , 2018, , .		3
54	Compression of digital holograms using 1-level wavelet transforms, thresholding and quantization of wavelet coefficients. , 2016, , .		3

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55	Estimation of the Efficiency of Digital Camera Photosensor Noise Measurement Through the Automatic Segmentation of Non-Uniform Target Methods and the Standard EMVA 1288. Measurement Techniques, 2021, 64, 296-304.	0.2	3
56	Method of Improvement of Signal-to-noise Ratio of Registered Shots using Dark and Light Spatial Noise Portraits of Camera's Photosensor. Physics Procedia, 2015, 73, 264-268.	1.2	2
57	Scheme of Optical Image Encryption with Digital Information Input and Dynamic Encryption Key based on Two LC SLMs. Physics Procedia, 2015, 73, 320-327.	1.2	2
58	Increasing signal-to-noise ratio of reconstructed digital holograms by using light spatial noise portrait of camera's photosensor. , 2015, , .		2
59	Modeling of digital information optical encryption system with spatially incoherent illumination. , 2015, , .		2
60	Coefficients Quantization at Off-axis Digital Hologram Wavelet Compression. KnE Energy, 2018, 3, 523.	0.3	2
61	Estimation of objects transverse parameters in off-axis and in-line Fresnel digital holography. Proceedings of SPIE, 2015, , .	0.8	1
62	Accurate measurement of spatial noise portraits of photosensors of digital cameras. Journal of Physics: Conference Series, 2016, 737, 012066.	0.3	1
63	Experimental evaluation of the optical quality of DMD SLM for its application as Fourier holograms displaying device. , 2016, , .		1
64	Analysis of security of optical encryption with spatially incoherent illumination technique. , 2017, , .		1
65	Optical dynamic reconstruction of quantized digital and computer-generated holograms. , 2018, , .		1
66	Method of attack on schemes of optical encryption with spatially incoherent illumination. , 2017, , .		1
67	Accurate estimation of camera shot noise in the real-time. , 2017, , .		1
68	Shot noise vs fixed pattern noise: what has higher effect on digital hologram quality?. , 2018, , .		1
69	Lensless Optical Encryption of Multilevel Digital Data Containers Using Spatially Incoherent Illumination. Applied Sciences (Switzerland), 2022, 12, 406.	1.3	1
70	Method of Shots Modeling using Noises and Radiometric Parameters of Registering Cameras. Physics Procedia, 2015, 73, 274-280.	1.2	0
71	Modified Method of Increasing of Reconstruction Quality of Diffractive Optical Elements Displayed with LC SLM. Physics Procedia, 2015, 73, 287-294.	1.2	0
72	Integral estimation of number of resolvable signal levels of digital cameras. Journal of Physics: Conference Series, 2016, 735, 012007.	0.3	0

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73	Simple method of modelling of digital holograms registering and their optical reconstruction. Journal of Physics: Conference Series, 2016, 737, 012073.	0.3	0
74	Application of input amplitude masks in image encryption with spatially incoherent illumination for increase of decrypted images signal-to-noise ratio. , 2016, , .		0
75	Optical encryption of series of images using a set of encryption keys using scheme operating with spatially-incoherent illumination based on two LC SLMs. Journal of Physics: Conference Series, 2016, 737, 012061.	0.3	0
76	Optical encryption of digital data in form of quick response code using spatially incoherent illumination. Proceedings of SPIE, 2016, , .	0.8	0
77	Recording of digital holograms of 3D scenes with depth up to 0.5 meter. Proceedings of SPIE, 2017, , .	0.8	0
78	Estimation of efficiency of measurement of digital camera photosensor noise by automatic segmentation of non-uniform target method and the standard EMVA 1288. Izmeritel'naya Tekhnika, 2021, , 28-35.	0.0	0
79	Influence of Spatial Losses of the Signal Detected by a Single-Pixel Detector on the Quality of Object Image Reconstruction. Radiophysics and Quantum Electronics, 2021, 63, 582-591.	0.1	0
80	Measurement of phase modulation of LCOS SLM Santec SLM-200 and analysis of its applicability for optical reconstruction of images from diffractive elements. Izmeritel'naya Tekhnika, 2021, , 4-8.	0.0	0
81	Kinoform synthesis using phase Fourier hologram as basis for iterative algorithm. , 2018, , .		0
82	Effect of CCD and CMOS fixed pattern noise on digital hologram reconstruction. , 2018, , .		0
83	Digital hologram quality improvement by elimination of imaging sensor noise. , 2018, , .		0
84	Speckle suppression and error reduction by synthesis and display of multiple kinoforms with sparsed image implementing dummy-area technique. , 2018, , .		0
85	Optical encryption of images in spatially incoherent light using DMD modulator. , 2019, , .		0
86	Fast increase of quality of optically reconstructed images in digital holography. , 2020, , .		0
87	Adaptive iterative method of selecting weight coefficients for digital holograms binarization using error diffusion. Izmeritel'naya Tekhnika, 2022, , 41-45.	0.0	0