

Pavel A Cheremkhin

List of Publications by Year in descending order

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758635

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87
all docs

87
docs citations

87
times ranked

175
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Adaptive Digital Hologram Binarization Method Based on Local Thresholding, Block Division and Error Diffusion. Journal of Imaging, 2022, 8, 15.	1.7	8
3	Lensless Optical Encryption of Multilevel Digital Data Containers Using Spatially Incoherent Illumination. Applied Sciences (Switzerland), 2022, 12, 406.	1.3	1
4	Adaptive iterative method of selecting weight coefficients for digital holograms binarization using error diffusion. Izmeritel'naya Tekhnika, 2022, , 41-45.	0.0	0
5	Shot Noise and Fixed-Pattern Noise Effects on Digital Hologram Reconstruction. Optics and Lasers in Engineering, 2021, 139, 106461.	2.0	8
6	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
7	A method for measuring digital camera noise by automatic segmentation of a striped target. Computer Optics, 2021, 45, .	1.3	9
8	Comparative analysis of off-axis digital hologram binarization by error diffusion. Journal of Optics (United Kingdom), 2021, 23, 075703.	1.0	13
9	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
10	New customizable digital data container for optical cryptosystems. Journal of Optics (United) Tj ETQq0 0 0 rgBT /Oyerlock 10 Tf 50 382	1.0	3
11	Lensless optical encryption with speckle-noise suppression and QR codes. Applied Optics, 2021, 60, 7336.	0.9	8
12	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
13	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
14	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
15	Machine learning methods for digital holography and diffractive optics. Procedia Computer Science, 2020, 169, 440-444.	1.2	12
16	Asymmetric image optical encryption under spatially incoherent illumination. Laser Physics Letters, 2020, 17, 025204.	0.6	5
17	QR-code optical encryption in the scheme with spatially incoherent illumination based on two micromirror light modulators. Quantum Electronics, 2020, 50, 195-196.	0.3	12
18	Iterative Binarization of Digital Holograms Using Error Diffusion Method. Optoelectronics, Instrumentation and Data Processing, 2020, 56, 205-211.	0.2	5

#	ARTICLE	IF	CITATIONS
19	Fast increase of quality of optically reconstructed images in digital holography. , 2020, , .		0
20	Application of a Digital Micromirror Device for Optical Encryption with Time Integration. Optoelectronics, Instrumentation and Data Processing, 2020, 56, 134-139.	0.2	4
21	High-speed implementation of holographic and diffraction elements using digital micromirror devices. Quantum Electronics, 2020, 50, 667-674.	0.3	7
22	Wavelet compression of off-axis digital holograms using real/imaginary and amplitude/phase parts. Scientific Reports, 2019, 9, 7561.	1.6	21
23	Comparative appraisal of global and local thresholding methods for binarisation of off-axis digital holograms. Optics and Lasers in Engineering, 2019, 115, 119-130.	2.0	38
24	Binarization of digital holograms by thresholding and error diffusion techniques. , 2019, , .		4
25	Optical encryption of images in spatially incoherent light using DMD modulator. , 2019, , .		0
26	Recognition of objects radiating with broad spectrum in dispersive holographic correlator. Optics Communications, 2018, 421, 73-78.	1.0	3
27	Optical dynamic reconstruction of quantized digital and computer-generated holograms. , 2018, , .		1
28	Quality of reconstruction of compressed off-axis digital holograms by frequency filtering and wavelets. Applied Optics, 2018, 57, A55.	0.9	18
29	Asymmetric optical encryption technique implementing spatially incoherent illumination. , 2018, , .		3
30	Coefficients Quantization at Off-axis Digital Hologram Wavelet Compression. KnE Energy, 2018, 3, 523.	0.3	2
31	Kinoform synthesis using phase Fourier hologram as basis for iterative algorithm. , 2018, , .		0
32	Effect of CCD and CMOS fixed pattern noise on digital hologram reconstruction. , 2018, , .		0
33	Digital hologram quality improvement by elimination of imaging sensor noise. , 2018, , .		0
34	Speckle suppression and error reduction by synthesis and display of multiple kinoforms with sparsed image implementing dummy-area technique. , 2018, , .		0
35	Shot noise vs fixed pattern noise: what has higher effect on digital hologram quality?. , 2018, , .		1
36	QR code optical encryption using spatially incoherent illumination. Laser Physics Letters, 2017, 14, 026202.	0.6	35

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37	Analysis of security of optical encryption with spatially incoherent illumination technique. , 2017, , .		1
38	Recording of digital holograms of 3D scenes with depth up to 0.5 meter. Proceedings of SPIE, 2017, , .	0.8	0
39	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
40	Method of attack on schemes of optical encryption with spatially incoherent illumination. , 2017, , .		1
41	Accurate estimation of camera shot noise in the real-time. , 2017, , .		1
42	Integral estimation of number of resolvable signal levels of digital cameras. Journal of Physics: Conference Series, 2016, 735, 012007.	0.3	0
43	Simple method of modelling of digital holograms registering and their optical reconstruction. Journal of Physics: Conference Series, 2016, 737, 012073.	0.3	0
44	Impact of DMD-SLMs errors on reconstructed Fourier holograms quality. Journal of Physics: Conference Series, 2016, 737, 012074.	0.3	3
45	Accurate measurement of spatial noise portraits of photosensors of digital cameras. Journal of Physics: Conference Series, 2016, 737, 012066.	0.3	1
46	Application of input amplitude masks in image encryption with spatially incoherent illumination for increase of decrypted images signal-to-noise ratio. , 2016, , .		0
47	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
48	Optical encryption of digital data in form of quick response code using spatially incoherent illumination. Proceedings of SPIE, 2016, , .	0.8	0
49	Demonstration of digital hologram recording and 3D-scenes reconstruction in real-time. , 2016, , .		13
50	Experimental evaluation of the optical quality of DMD SLM for its application as Fourier holograms displaying device. , 2016, , .		1
51	Numerical comparison of scalar and vector methods of digital hologram compression. Proceedings of SPIE, 2016, , .	0.8	7
52	Methods of compression of digital holograms, based on 1-level wavelet transform. Journal of Physics: Conference Series, 2016, 737, 012071.	0.3	4
53	Optical Encryption of Arrays of Binary Digits in Spatially Incoherent Light. Russian Physics Journal, 2016, 58, 1394-1401.	0.2	18
54	Compression of digital holograms using 1-level wavelet transforms, thresholding and quantization of wavelet coefficients. , 2016, , .		3

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55	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
56	Dynamic Reconstruction of 3D-scenes from Registered Digital Holograms. Physics Procedia, 2015, 73, 333-337.	1.2	3
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	Method of Shots Modeling using Noises and Radiometric Parameters of Registering Cameras. Physics Procedia, 2015, 73, 274-280.	1.2	0
59	Multiple-wavelength Color Digital Holography for Monochromatic Image Reconstruction. Physics Procedia, 2015, 73, 301-307.	1.2	6
60	Methods of Compression of Digital Holograms. Physics Procedia, 2015, 73, 328-332.	1.2	13
61	Estimation of objects transverse parameters in off-axis and in-line Fresnel digital holography. Proceedings of SPIE, 2015, , .	0.8	1
62	Evaluation of Diffraction Efficiency and Image Quality in Optical Reconstruction of Digital Fresnel Holograms. Radiophysics and Quantum Electronics, 2015, 57, 635-649.	0.1	17
63	Modeling of effect of LC SLM phase fluctuations on kinoforms optical reconstruction quality. , 2015, , .		5
64	Increasing signal-to-noise ratio of reconstructed digital holograms by using light spatial noise portrait of camera's photosensor. , 2015, , .		2
65	Increasing reconstruction quality of diffractive optical elements displayed with LC SLM. , 2015, , .		5
66	Modified Method of Increasing of Reconstruction Quality of Diffractive Optical Elements Displayed with LC SLM. Physics Procedia, 2015, 73, 287-294.	1.2	0
67	Fast measurement of temporal noise of digital camera's photosensors. Proceedings of SPIE, 2015, , .	0.8	8
68	Modeling of digital information optical encryption system with spatially incoherent illumination. , 2015, , .		2
69	Improvement of quality of optical reconstruction of digital Fourier holograms displayed on phase-only SLM by its digital preprocessing. , 2014, , .		6
70	Increasing quality of computer-generated kinoforms using direct search with random trajectory method. , 2014, , .		7
71	Estimation of number of resolvable signal levels of photo- and videocameras. Journal of Physics: Conference Series, 2014, 536, 012023.	0.3	5
72	Generation of keys for image optical encryption in spatially incoherent light aimed at reduction of image decryption error. , 2014, , .		10

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73	Use of spectral characteristics of DSLR cameras with Bayer filter sensors. Journal of Physics: Conference Series, 2014, 536, 012021.	0.3	10
74	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
75	Modified temporal noise measurement method with automatic segmentation of nonuniform target, its accuracy estimation, and application to cameras of different types. Optical Engineering, 2014, 53, 102107.	0.5	28
76	Comparison of methods of suppression of undesired diffraction orders at numerical reconstruction of digital Fresnel holograms. , 2014, , .		7
77	Reduction of phase temporal fluctuations caused by digital voltage addressing in LC SLM "HoloEye PLUTO VIS" for holographic applications. Proceedings of SPIE, 2014, , .	0.8	12
78	Increasing signal-to-noise ratio of registered images by using light spatial noise portrait of camera's photosensor. , 2014, , .		5
79	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
80	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
81	Comparison of kinoform synthesis methods for image reconstruction in Fourier plane. , 2014, , .		10
82	A technique of measuring spectral characteristics of detector arrays in amateur and professional photcameras and their application for problems of digital holography. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2013, 115, 557-566.	0.2	10
83	Estimating how the dynamic range and noise of the recording cameras affect the quality of digital holograms. Journal of Optical Technology (A Translation of Opticheskii Zhurnal), 2013, 80, 301.	0.2	20
84	Method of optical image coding by time integration. , 2012, , .		15
85	Numerical and optical reconstruction of digital off-axis Fresnel holograms. , 2012, , .		14
86	Measurement of noises and modulation transfer function of cameras used in optical-digital correlators. , 2012, , .		18
87	Measuring random sensor noise in cameras. SPIE Newsroom, 0, , .	0.1	4