

Adrian Stern

List of Publications by Year in descending order

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140
papers

4,863
citations

87888

38
h-index

95266

68
g-index

141
all docs

141
docs citations

141
times ranked

2105
citing authors

#	ARTICLE	IF	CITATIONS
1	Object localization and tracking in three dimensions by space-to-time encoding. Optics Express, 2022, 30, 12878.	3.4	1
2	Compressive imaging for defending deep neural networks from adversarial attacks. Optics Letters, 2021, 46, 1951.	3.3	10
3	Roadmap on digital holography [Invited]. Optics Express, 2021, 29, 35078.	3.4	133
4	Compressive imaging for thwarting adversarial attacks on 3D point cloud classifiers. Optics Express, 2021, 29, 42726.	3.4	4
5	Roadmap on 3D integral imaging: sensing, processing, and display. Optics Express, 2020, 28, 32266.	3.4	105
6	Theoretical investigation of using a yellow (577nm) laser for diabetic retinopathy. OSA Continuum, 2020, 3, 3253.	1.8	5
7	Compressive ultraspectral imaging using multiscale structured illumination. Applied Optics, 2019, 58, F32.	1.8	5
8	DeepCubeNet: reconstruction of spectrally compressive sensed hyperspectral images with deep neural networks. Optics Express, 2019, 27, 35811.	3.4	30
9	NIR hyperspectral compressive imager based on a modified Fabry-Pérot resonator. Journal of Optics (United Kingdom), 2018, 20, 044011.	2.2	19
10	Performance of target detection algorithm in compressive sensing miniature ultraspectral imaging compressed sensing system. Optical Engineering, 2017, 56, 041312.	1.0	10
11	Compressive sensing resonator spectroscopy. Optics Letters, 2017, 42, 25.	3.3	26
12	Comparison between various patch wise strategies for reconstruction of ultra-spectral cubes captured with a compressive sensing system. , 2016, , .		1
13	Hurdles in the implementation of compressive sensing for imaging and ways to overcome them. , 2016, , .		0
14	Multidimensional optical sensing and imaging for displays, computational imaging, optical security, and healthcare. , 2016, , .		0
15	Along-track scanning using a liquid crystal compressive hyperspectral imager. Optics Express, 2016, 24, 8446.	3.4	21
16	Fast and exact method for computing a stack of images at various focuses from a four-dimensional light field. Journal of Electronic Imaging, 2016, 25, 043002.	0.9	2
17	Optical compressive imaging and sensing: A decade retrospective. , 2016, , .		1
18	Roadmap on optical security. Journal of Optics (United Kingdom), 2016, 18, 083001.	2.2	338

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19	Miniature Compressive Ultra-spectral Imaging System Utilizing a Single Liquid Crystal Phase Retarder. Scientific Reports, 2016, 6, 23524.	3.3	76
20	An exact and efficient 3D reconstruction method from captured light-fields using the fractional Fourier transform. Proceedings of SPIE, 2016, , .	0.8	1
21	Compressive 4D spectro-volumetric imaging. Optics Letters, 2016, 41, 5174.	3.3	19
22	Compressive and classical hyperspectral systems: a fundamental comparison. , 2015, , .		0
23	Three-Dimensional Super Resolution Reconstruction by Integral Imaging. Journal of Display Technology, 2015, 11, 947-952.	1.2	12
24	Horizontal Resolution Enhancement of Autostereoscopy Three-Dimensional Displayed Image by Chroma Subpixel Downsampling. Journal of Display Technology, 2015, 11, 800-806.	1.2	7
25	Feasibility of Radon projection acquisition for compressive imaging in MMW region based new video rate 16Å–16 GDD FPA camera. , 2015, , .		0
26	Using perceivable light fields to evaluate the amount of information that autostereoscopic displays need to cast. , 2015, , .		1
27	Spectral analysis of views interpolated by chroma subpixel downsampling for 3D autostereoscopic displays. , 2015, , .		0
28	Sparse synthetic aperture with Fresnel elements (S-SAFE) using digital incoherent holograms. Optics Express, 2015, 23, 20941.	3.4	21
29	Synthetic Aperture Integral Imaging Display With Moving Array Lenslet Technique. Journal of Display Technology, 2015, 11, 827-833.	1.2	7
30	Three-Dimensional Imaging With Multiple Degrees of Freedom Using Data Fusion. Proceedings of the IEEE, 2015, 103, 1654-1671.	21.3	8
31	Experimental evaluation of inline free-space holography systems. Applied Optics, 2015, 54, 3991.	2.1	7
32	Digital speckle reduction in holograms: a comparison between methods. Proceedings of SPIE, 2014, , .	0.8	2
33	Fluctuations in the intensity read out of CCD/CMOS arrays in digital holographic setups: an experimental investigation. Proceedings of SPIE, 2014, , .	0.8	1
34	Reconstruction algorithms for compressive hyperspectral imaging systems with separable spatial and spectral operators. , 2014, , .		1
35	Digital speckle reduction: a comparison between methods. , 2014, , .		0
36	Super-resolving optical systems based on compressive sensing. , 2014, , .		1

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37	Perceivable Light Fields: Matching the Requirements Between the Human Visual System and Autostereoscopic 3-D Displays. Proceedings of the IEEE, 2014, 102, 1571-1587.	21.3	45
38	Theoretical bounds on Fresnel compressive holography performance (Invited Paper). Chinese Optics Letters, 2014, 12, 060022-60025.	2.9	1
39	3D imaging and visualization: An overview of recent advances. , 2013, , .		3
40	A study of the coherence parameter of the progressive compressive imager based on radon transform. Proceedings of SPIE, 2013, , .	0.8	1
41	Compressive moving objects localization techniques based on optical Radon projections. , 2013, , .		0
42	Spatial versus spectral compression ratio in compressive sensing of hyperspectral imaging. , 2013, , .		7
43	Compressive hyperspectral imaging by random separable projections in both the spatial and the spectral domains. Applied Optics, 2013, 52, D46.	1.8	142
44	Speckle denoising in digital holography by nonlocal means filtering. Applied Optics, 2013, 52, A195.	1.8	117
45	Phase-Modulated Optical System With Sparse Representation for Information Encoding and Authentication. IEEE Photonics Journal, 2013, 5, 6900113-6900113.	2.0	94
46	Quantization error and dynamic range considerations for compressive imaging systems design. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2013, 30, 1069.	1.5	9
47	Compressive sensing spectrometry based on liquid crystal devices. Optics Letters, 2013, 38, 4996.	3.3	77
48	Reconstruction guarantees for compressive tomographic holography. Optics Letters, 2013, 38, 2509.	3.3	30
49	Overview of compressive sensing techniques applied in holography [Invited]. Applied Optics, 2013, 52, A423.	1.8	118
50	Super-resolution compressive imaging with anamorphic optics. Optics Express, 2013, 21, 25851.	3.4	10
51	Improved depth resolution by single-exposure in-line compressive holography. Applied Optics, 2013, 52, A223.	1.8	40
52	Theory of compressive sensing with quadratic phase systems and examples in optics. , 2013, , .		2
53	Compressive sensing for improved depth discrimination in 3D holographic reconstruction. , 2013, , .		2
54	Hyperspectral compressive imaging. , 2013, , .		5

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55	Advances in three-dimensional integral imaging: sensing, display, and applications [Invited]. Applied Optics, 2013, 52, 546.	1.8	464
56	Multi-dimensional compressive imaging. Proceedings of SPIE, 2013, , .	0.8	0
57	Optical compressive sensing: a new field benefiting from classical optical signal processing techniques. Proceedings of SPIE, 2013, , .	0.8	2
58	Recovery of partially occluded objects by applying compressive Fresnel holography. Optics Letters, 2012, 37, 1757.	3.3	44
59	Multidimensional imaging using compressive Fresnel holography. Optics Letters, 2012, 37, 2013.	3.3	42
60	Optical compressive change and motion detection. Applied Optics, 2012, 51, 2491.	1.8	32
61	Compressive digital holography for reconstruction of partially occluded objects. , 2012, , .		0
62	Experiments With Three-Dimensional Integral Imaging Under Low Light Levels. IEEE Photonics Journal, 2012, 4, 1188-1195.	2.0	35
63	Anamorphic optics for compressive imaging and compressive motion tracking. , 2012, , .		1
64	Progressive compressive imaging from Radon projections. Optics Express, 2012, 20, 4260.	3.4	23
65	Progressive compressive imager. , 2012, , .		2
66	An overview of 3D visualization with integral imaging in photon starved conditions. Proceedings of SPIE, 2012, , .	0.8	1
67	Infrared image denoising by nonlocal means filtering. , 2012, , .		4
68	Magnetic pulse welding of Al to Mg alloys: Structural"mechanical properties of the interfacial layer. Materials Science and Technology, 2011, 27, 1809-1813.	1.6	18
69	Compressive sensing techniques in holography. , 2011, , .		1
70	Compressive multiple view projection incoherent holography. Optics Express, 2011, 19, 6109.	3.4	61
71	Three-dimensional photon counting integral imaging reconstruction using penalized maximum likelihood expectation maximization. Optics Express, 2011, 19, 19681.	3.4	58
72	Conditions for practicing compressive Fresnel holography. Optics Letters, 2011, 36, 3365.	3.3	51

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73	Efficient reconstruction of 3D images from photon starved integral imaging using PMLEM. Proceedings of SPIE, 2011, , .	0.8	0
74	Optically compressed sensing by under sampling the polar Fourier plane. Journal of Physics: Conference Series, 2010, 206, 012019.	0.4	2
75	Wave formation mechanism in magnetic pulse welding. International Journal of Impact Engineering, 2010, 37, 397-404.	5.0	140
76	Efficient compressive Fresnel holography. , 2010, , .		0
77	Compressive Fresnel Holography. Journal of Display Technology, 2010, 6, 506-509.	1.2	149
78	Single exposure super-resolution compressive imaging by double phase encoding. Optics Express, 2010, 18, 15094.	3.4	93
79	Compressive imaging for superresolution from a single exposure. , 2010, , .		0
80	Automated Three-Dimensional Identification and Tracking of Micro/Nanobiological Organisms by Computational Holographic Microscopy. Proceedings of the IEEE, 2009, 97, 990-1010.	21.3	95
81	Compressed Imaging With a Separable Sensing Operator. IEEE Signal Processing Letters, 2009, 16, 449-452.	3.6	134
82	Practical compressive sensing of large images. , 2009, , .		14
83	Uncertainty principles in linear canonical transform domains and some of their implications in optics. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2008, 25, 647.	1.5	124
84	Space-bandwidth conditions for efficient phase-shifting digital holographic microscopy. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2008, 25, 736.	1.5	31
85	Interface phenomena in aluminium-magnesium magnetic pulse welding. Science and Technology of Welding and Joining, 2008, 13, 402-408.	3.1	78
86	Visual perception of vibration-distorted thermal images. Journal of Electronic Imaging, 2008, 17, 013001.	0.9	1
87	3D optical microscopy using digital holography. Proceedings of SPIE, 2008, , .	0.8	1
88	Optically compressed image sensing using random aperture coding. , 2008, , .		9
89	Single exposure optically compressed imaging and visualization using random aperture coding. Journal of Physics: Conference Series, 2008, 139, 012018.	0.4	5
90	Single-shot compressive imaging. , 2007, , .		2

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91	Compressed imaging system with linear sensors. Optics Letters, 2007, 32, 3077.	3.3	35
92	Theoretical analysis of three-dimensional imaging and recognition of micro-organisms with a single-exposure on-line holographic microscope. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2007, 24, 163.	1.5	62
93	Integral holography: white-light single-shot hologram acquisition. Optics Express, 2007, 15, 5754.	3.4	67
94	Random Projections Imaging With Extended Space-Bandwidth Product. Journal of Display Technology, 2007, 3, 315-320.	1.2	64
95	A Hybrid Compression Method for Integral Images Using Discrete Wavelet Transform and Discrete Cosine Transform. Journal of Display Technology, 2007, 3, 321-325.	1.2	47
96	Sampling of compact signals in offset linear canonical transform domains. Signal, Image and Video Processing, 2007, 1, 359-367.	2.7	84
97	Three-Dimensional Image Sensing, Visualization, and Processing Using Integral Imaging. Proceedings of the IEEE, 2006, 94, 591-607.	21.3	337
98	Improved-resolution digital holography using the generalized sampling theorem for locally band-limited fields. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2006, 23, 1227.	1.5	56
99	Registration of motion-distorted interlaced images captured by a scanning vector imaging sensor. Applied Optics, 2006, 45, 5950.	2.1	5
100	Sampling of linear canonical transformed signals. Signal Processing, 2006, 86, 1421-1425.	3.7	158
101	Integral image compression methods. , 2006, , .		1
102	Multi-dimensional imaging with lenslet arrays. , 2005, , .		0
103	Ray Phase Space Approach for 3-D Imaging and 3-D Optical Data Representation. Journal of Display Technology, 2005, 1, 141-150.	1.2	16
104	Information capacity gain by time-division multiplexing in three-dimensional integral imaging. Optics Letters, 2005, 30, 1135.	3.3	8
105	General sampling theorem and application in digital holography. , 2004, 5557, 110.		5
106	Analysis of practical sampling and reconstruction from Fresnel fields. Optical Engineering, 2004, 43, 239.	1.0	59
107	Sampling in the light of Wigner distribution. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2004, 21, 360.	1.5	56
108	Shannon number and information capacity of three-dimensional integral imaging. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2004, 21, 1602.	1.5	36

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109	Sampling in the light of Wigner distribution: errata. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2004, 21, 2038.	1.5	15
110	Compression of 3D color integral images. Optics Express, 2004, 12, 1632.	3.4	65
111	Restoration of images captured by a staggered time delay and integration camera in the presence of mechanical vibrations. Applied Optics, 2004, 43, 4345.	2.1	26
112	Phase formation in iron-containing titanium aluminide during two-step heat treatment. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 351, 56-69.	5.6	5
113	Three-dimensional image sensing and reconstruction with time-division multiplexed computational integral imaging. Applied Optics, 2003, 42, 7036.	2.1	88
114	3-D computational synthetic aperture integral imaging (COMPSAI). Optics Express, 2003, 11, 2446.	3.4	99
115	Image restoration from camera vibration and object motion blur in infrared staggered time-delay and integration systems. Optical Engineering, 2003, 42, 3253.	1.0	12
116	Restoration of interlaced images degraded by variable velocity motion. Optical Engineering, 2003, 42, 3557.	1.0	8
117	3D image sensing and reconstruction with time-division multiplexed computational integral imaging (CII). , 2003, 5243, 131.		5
118	Restoration of images captured by a staggered TDI camera in the presence of mechanical vibrations. , 2003, 5203, 559.		1
119	Recognition of motion-blurred images by use of the method of moments. Applied Optics, 2002, 41, 2164.	2.1	31
120	Enhanced-resolution image restoration from a sequence of low-frequency vibrated images by use of convex projections. Applied Optics, 2001, 40, 4706.	2.1	16
121	<title>Stabilization, restoration, and resolution enhancement of a video sequence captured by a moving and vibrating platform</title>. , 2001, , .		0
122	Influence of severe vibrations on the visual perception of video sequences. Optical Engineering, 2001, 40, 964.	1.0	2
123	Modulation transfer function as a quality measure for compressed images transmitted over a lossy packet network. Optical Engineering, 2001, 40, 2134.	1.0	13
124	Enhancement of an image compression algorithm by pre- and post-filtering. Optical Engineering, 2001, 40, 193.	1.0	6
125	<title>Restoration of nonlinear motion-distorted composite frame</title>. , 2000, 4115, 58.		0
126	Influence of severe vibrations on the visual perception of video sequences. , 2000, , .		0

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127	Restoration and resolution enhancement of a single image from a vibration-distorted image sequence. Optical Engineering, 2000, 39, 2451.	1.0	13
128	Optical transfer function analysis of images blurred by nonharmonic vibrations characterized by their power spectrum density. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1999, 16, 2200.	1.5	4
129	Motion-distorted composite-frame restoration. Applied Optics, 1999, 38, 757.	2.1	7
130	<title>Restoration and resolution enhancement of a single image from a vibration-distorted image sequence</title>. , 1999, , .		0
131	<title>MTF as a quality measure for compressed images transmitted over computer networks</title>. , 1999, , .		0
132	General restoration filter for vibrated-image restoration. Applied Optics, 1998, 37, 7596.	2.1	9
133	<title>Image compression improvement by prefiltering</title>. , 1998, 3460, 895.		2
134	<title>Motion-distorted composite frame restoration</title>. , 1998, , .		0
135	Vibrated image restoration from two consecutive images. , 1997, , .		0
136	<title>General restoration filter for vibrated image restoration</title>. , 1997, , .		1
137	Analytical method to calculate optical transfer functions for image motion and vibrations using moments. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1997, 14, 388.	1.5	41
138	<title>Analytical method to calculate optical transfer functions for image motion using moments and its implementation in image restoration</title>. , 1996, , .		2
139	Dislocation relaxation in polycrystalline cubic metals under high pressure. Scripta Metallurgica, 1979, 13, 435-440.	1.2	0
140	Advanced Welding Technologies for Magnesium Alloys. , 0, , .		1