

Adrian Stern

List of Publications by Year in descending order

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140
papers

4,863
citations

87723

38
h-index

95083

68
g-index

141
all docs

141
docs citations

141
times ranked

2105
citing authors

#	ARTICLE	IF	CITATIONS
1	Advances in three-dimensional integral imaging: sensing, display, and applications [Invited]. Applied Optics, 2013, 52, 546.	0.9	464
2	Roadmap on optical security. Journal of Optics (United Kingdom), 2016, 18, 083001.	1.0	338
3	Three-Dimensional Image Sensing, Visualization, and Processing Using Integral Imaging. Proceedings of the IEEE, 2006, 94, 591-607.	16.4	337
4	Sampling of linear canonical transformed signals. Signal Processing, 2006, 86, 1421-1425.	2.1	158
5	Compressive Fresnel Holography. Journal of Display Technology, 2010, 6, 506-509.	1.3	149
6	Compressive hyperspectral imaging by random separable projections in both the spatial and the spectral domains. Applied Optics, 2013, 52, D46.	0.9	142
7	Wave formation mechanism in magnetic pulse welding. International Journal of Impact Engineering, 2010, 37, 397-404.	2.4	140
8	Compressed Imaging With a Separable Sensing Operator. IEEE Signal Processing Letters, 2009, 16, 449-452.	2.1	134
9	Roadmap on digital holography [Invited]. Optics Express, 2021, 29, 35078.	1.7	133
10	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.	0.8	124
11	Overview of compressive sensing techniques applied in holography [Invited]. Applied Optics, 2013, 52, A423.	0.9	118
12	Speckle denoising in digital holography by nonlocal means filtering. Applied Optics, 2013, 52, A195.	0.9	117
13	Roadmap on 3D integral imaging: sensing, processing, and display. Optics Express, 2020, 28, 32266.	1.7	105
14	3-D computational synthetic aperture integral imaging (COMPSAII). Optics Express, 2003, 11, 2446.	1.7	99
15	Automated Three-Dimensional Identification and Tracking of Micro/Nanobiological Organisms by Computational Holographic Microscopy. Proceedings of the IEEE, 2009, 97, 990-1010.	16.4	95
16	Phase-Modulated Optical System With Sparse Representation for Information Encoding and Authentication. IEEE Photonics Journal, 2013, 5, 6900113-6900113.	1.0	94
17	Single exposure super-resolution compressive imaging by double phase encoding. Optics Express, 2010, 18, 15094.	1.7	93
18	Three-dimensional image sensing and reconstruction with time-division multiplexed computational integral imaging. Applied Optics, 2003, 42, 7036.	2.1	88

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19	Sampling of compact signals in offset linear canonical transform domains. <i>Signal, Image and Video Processing</i> , 2007, 1, 359-367.	1.7	84
20	Interface phenomena in aluminium-magnesium magnetic pulse welding. <i>Science and Technology of Welding and Joining</i> , 2008, 13, 402-408.	1.5	78
21	Compressive sensing spectrometry based on liquid crystal devices. <i>Optics Letters</i> , 2013, 38, 4996.	1.7	77
22	Miniature Compressive Ultra-spectral Imaging System Utilizing a Single Liquid Crystal Phase Retarder. <i>Scientific Reports</i> , 2016, 6, 23524.	1.6	76
23	Integral holography: white-light single-shot hologram acquisition. <i>Optics Express</i> , 2007, 15, 5754.	1.7	67
24	Compression of 3D color integral images. <i>Optics Express</i> , 2004, 12, 1632.	1.7	65
25	Random Projections Imaging With Extended Space-Bandwidth Product. <i>Journal of Display Technology</i> , 2007, 3, 315-320.	1.3	64
26	Theoretical analysis of three-dimensional imaging and recognition of micro-organisms with a single-exposure on-line holographic microscope. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2007, 24, 163.	0.8	62
27	Compressive multiple view projection incoherent holography. <i>Optics Express</i> , 2011, 19, 6109.	1.7	61
28	Analysis of practical sampling and reconstruction from Fresnel fields. <i>Optical Engineering</i> , 2004, 43, 239.	0.5	59
29	Three-dimensional photon counting integral imaging reconstruction using penalized maximum likelihood expectation maximization. <i>Optics Express</i> , 2011, 19, 19681.	1.7	58
30	Sampling in the light of Wigner distribution. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2004, 21, 360.	0.8	56
31	Improved-resolution digital holography using the generalized sampling theorem for locally band-limited fields. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2006, 23, 1227.	0.8	56
32	Conditions for practicing compressive Fresnel holography. <i>Optics Letters</i> , 2011, 36, 3365.	1.7	51
33	A Hybrid Compression Method for Integral Images Using Discrete Wavelet Transform and Discrete Cosine Transform. <i>Journal of Display Technology</i> , 2007, 3, 321-325.	1.3	47
34	Perceivable Light Fields: Matching the Requirements Between the Human Visual System and Autostereoscopic 3-D Displays. <i>Proceedings of the IEEE</i> , 2014, 102, 1571-1587.	16.4	45
35	Recovery of partially occluded objects by applying compressive Fresnel holography. <i>Optics Letters</i> , 2012, 37, 1757.	1.7	44
36	Multidimensional imaging using compressive Fresnel holography. <i>Optics Letters</i> , 2012, 37, 2013.	1.7	42

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37	Analytical method to calculate optical transfer functions for image motion and vibrations using moments. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 1997, 14, 388.	0.8	41
38	Improved depth resolution by single-exposure in-line compressive holography. <i>Applied Optics</i> , 2013, 52, A223.	0.9	40
39	Shannon number and information capacity of three-dimensional integral imaging. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2004, 21, 1602.	0.8	36
40	Compressed imaging system with linear sensors. <i>Optics Letters</i> , 2007, 32, 3077.	1.7	35
41	Experiments With Three-Dimensional Integral Imaging Under Low Light Levels. <i>IEEE Photonics Journal</i> , 2012, 4, 1188-1195.	1.0	35
42	Optical compressive change and motion detection. <i>Applied Optics</i> , 2012, 51, 2491.	0.9	32
43	Recognition of motion-blurred images by use of the method of moments. <i>Applied Optics</i> , 2002, 41, 2164.	2.1	31
44	Space-bandwidth conditions for efficient phase-shifting digital holographic microscopy. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2008, 25, 736.	0.8	31
45	Reconstruction guarantees for compressive tomographic holography. <i>Optics Letters</i> , 2013, 38, 2509.	1.7	30
46	DeepCubeNet: reconstruction of spectrally compressive sensed hyperspectral images with deep neural networks. <i>Optics Express</i> , 2019, 27, 35811.	1.7	30
47	Restoration of images captured by a staggered time delay and integration camera in the presence of mechanical vibrations. <i>Applied Optics</i> , 2004, 43, 4345.	2.1	26
48	Compressive sensing resonator spectroscopy. <i>Optics Letters</i> , 2017, 42, 25.	1.7	26
49	Progressive compressive imaging from Radon projections. <i>Optics Express</i> , 2012, 20, 4260.	1.7	23
50	Sparse synthetic aperture with Fresnel elements (S-SAFE) using digital incoherent holograms. <i>Optics Express</i> , 2015, 23, 20941.	1.7	21
51	Along-track scanning using a liquid crystal compressive hyperspectral imager. <i>Optics Express</i> , 2016, 24, 8446.	1.7	21
52	NIR hyperspectral compressive imager based on a modified Fabry-Pérot resonator. <i>Journal of Optics (United Kingdom)</i> , 2018, 20, 044011.	1.0	19
53	Compressive 4D spectro-volumetric imaging. <i>Optics Letters</i> , 2016, 41, 5174.	1.7	19
54	Magnetic pulse welding of Al to Mg alloys: Structural-mechanical properties of the interfacial layer. <i>Materials Science and Technology</i> , 2011, 27, 1809-1813.	0.8	18

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55	Enhanced-resolution image restoration from a sequence of low-frequency vibrated images by use of convex projections. <i>Applied Optics</i> , 2001, 40, 4706.	2.1	16
56	Ray Phase Space Approach for 3-D Imaging and 3-D Optical Data Representation. <i>Journal of Display Technology</i> , 2005, 1, 141-150.	1.3	16
57	Sampling in the light of Wigner distribution: errata. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2004, 21, 2038.	0.8	15
58	Practical compressive sensing of large images. , 2009, , .		14
59	Restoration and resolution enhancement of a single image from a vibration-distorted image sequence. <i>Optical Engineering</i> , 2000, 39, 2451.	0.5	13
60	Modulation transfer function as a quality measure for compressed images transmitted over a lossy packet network. <i>Optical Engineering</i> , 2001, 40, 2134.	0.5	13
61	Image restoration from camera vibration and object motion blur in infrared staggered time-delay and integration systems. <i>Optical Engineering</i> , 2003, 42, 3253.	0.5	12
62	Three-Dimensional Super Resolution Reconstruction by Integral Imaging. <i>Journal of Display Technology</i> , 2015, 11, 947-952.	1.3	12
63	Super-resolution compressive imaging with anamorphic optics. <i>Optics Express</i> , 2013, 21, 25851.	1.7	10
64	Performance of target detection algorithm in compressive sensing miniature ultraspectral imaging compressed sensing system. <i>Optical Engineering</i> , 2017, 56, 041312.	0.5	10
65	Compressive imaging for defending deep neural networks from adversarial attacks. <i>Optics Letters</i> , 2021, 46, 1951.	1.7	10
66	General restoration filter for vibrated-image restoration. <i>Applied Optics</i> , 1998, 37, 7596.	2.1	9
67	Optically compressed image sensing using random aperture coding. , 2008, , .		9
68	Quantization error and dynamic range considerations for compressive imaging systems design. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2013, 30, 1069.	0.8	9
69	Restoration of interlaced images degraded by variable velocity motion. <i>Optical Engineering</i> , 2003, 42, 3557.	0.5	8
70	Information capacity gain by time-division multiplexing in three-dimensional integral imaging. <i>Optics Letters</i> , 2005, 30, 1135.	1.7	8
71	Three-Dimensional Imaging With Multiple Degrees of Freedom Using Data Fusion. <i>Proceedings of the IEEE</i> , 2015, 103, 1654-1671.	16.4	8
72	Motion-distorted composite-frame restoration. <i>Applied Optics</i> , 1999, 38, 757.	2.1	7

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73	Spatial versus spectral compression ratio in compressive sensing of hyperspectral imaging. , 2013, , .		7
74	Horizontal Resolution Enhancement of Autostereoscopy Three-Dimensional Displayed Image by Chroma Subpixel Downsampling. Journal of Display Technology, 2015, 11, 800-806.	1.3	7
75	Synthetic Aperture Integral Imaging Display With Moving Array Lenslet Technique. Journal of Display Technology, 2015, 11, 827-833.	1.3	7
76	Experimental evaluation of inline free-space holography systems. Applied Optics, 2015, 54, 3991.	2.1	7
77	Enhancement of an image compression algorithm by pre- and post-filtering. Optical Engineering, 2001, 40, 193.	0.5	6
78	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.	2.6	5
79	3D image sensing and reconstruction with time-division multiplexed computational integral imaging (CII). , 2003, 5243, 131.		5
80	General sampling theorem and application in digital holography. , 2004, 5557, 110.		5
81	Registration of motion-distorted interlaced images captured by a scanning vector imaging sensor. Applied Optics, 2006, 45, 5950.	2.1	5
82	Single exposure optically compressed imaging and visualization using random aperture coding. Journal of Physics: Conference Series, 2008, 139, 012018.	0.3	5
83	Hyperspectral compressive imaging. , 2013, , .		5
84	Compressive ultraspectral imaging using multiscale structured illumination. Applied Optics, 2019, 58, F32.	0.9	5
85	Theoretical investigation of using a yellow (577nm) laser for diabetic retinopathy. OSA Continuum, 2020, 3, 3253.	1.8	5
86	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.	0.8	4
87	Infrared image denoising by nonlocal means filtering. , 2012, , .		4
88	Compressive imaging for thwarting adversarial attacks on 3D point cloud classifiers. Optics Express, 2021, 29, 42726.	1.7	4
89	3D imaging and visualization: An overview of recent advances. , 2013, , .		3
90	<title>Analytical method to calculate optical transfer functions for image motion using moments and its implementation in image restoration</title>. , 1996, , .		2

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91	<title>Image compression improvement by prefiltering</title>. , 1998, 3460, 895.		2
92	Influence of severe vibrations on the visual perception of video sequences. Optical Engineering, 2001, 40, 964.	0.5	2
93	Single-shot compressive imaging. , 2007, , .		2
94	Optically compressed sensing by under sampling the polar Fourier plane. Journal of Physics: Conference Series, 2010, 206, 012019.	0.3	2
95	Progressive compressive imager. , 2012, , .		2
96	Theory of compressive sensing with quadratic phase systems and examples in optics. , 2013, , .		2
97	Compressive sensing for improved depth discrimination in 3D holographic reconstruction. , 2013, , .		2
98	Optical compressive sensing: a new field benefiting from classical optical signal processing techniques. Proceedings of SPIE, 2013, , .	0.8	2
99	Digital speckle reduction in holograms: a comparison between methods. Proceedings of SPIE, 2014, , .	0.8	2
100	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.	0.5	2
101	<title>General restoration filter for vibrated image restoration</title>. , 1997, , .		1
102	Advanced Welding Technologies for Magnesium Alloys. , 0, , .		1
103	Restoration of images captured by a staggered TDI camera in the presence of mechanical vibrations. , 2003, 5203, 559.		1
104	Integral image compression methods. , 2006, , .		1
105	Visual perception of vibration-distorted thermal images. Journal of Electronic Imaging, 2008, 17, 013001.	0.5	1
106	3D optical microscopy using digital holography. Proceedings of SPIE, 2008, , .	0.8	1
107	Compressive sensing techniques in holography. , 2011, , .		1
108	Anamorphic optics for compressive imaging and compressive motion tracking. , 2012, , .		1

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109	An overview of 3D visualization with integral imaging in photon starved conditions. Proceedings of SPIE, 2012, , .	0.8	1
110	A study of the coherence parameter of the progressive compressive imager based on radon transform. Proceedings of SPIE, 2013, , .	0.8	1
111	Fluctuations in the intensity read out of CCD/CMOS arrays in digital holographic setups: an experimental investigation. Proceedings of SPIE, 2014, , .	0.8	1
112	Reconstruction algorithms for compressive hyperspectral imaging systems with separable spatial and spectral operators. , 2014, , .		1
113	Super-resolving optical systems based on compressive sensing. , 2014, , .		1
114	Using perceivable light fields to evaluate the amount of information that autostereoscopic displays need to cast. , 2015, , .		1
115	Comparison between various patch wise strategies for reconstruction of ultra-spectral cubes captured with a compressive sensing system. , 2016, , .		1
116	Optical compressive imaging and sensing: A decade retrospective. , 2016, , .		1
117	An exact and efficient 3D reconstruction method from captured light-fields using the fractional Fourier transform. Proceedings of SPIE, 2016, , .	0.8	1
118	Theoretical bounds on Fresnel compressive holography performance (Invited Paper). Chinese Optics Letters, 2014, 12, 060022-60025.	1.3	1
119	Object localization and tracking in three dimensions by space-to-time encoding. Optics Express, 2022, 30, 12878.	1.7	1
120	Dislocation relaxation in polycrystalline cubic metals under high pressure. Scripta Metallurgica, 1979, 13, 435-440.	1.2	0
121	Vibrated image restoration from two consecutive images. , 1997, , .		0
122	<title>Motion-distorted composite frame restoration</title>. , 1998, , .		0
123	<title>Restoration and resolution enhancement of a single image from a vibration-distorted image sequence</title>. , 1999, , .		0
124	<title>MTF as a quality measure for compressed images transmitted over computer networks</title>. , 1999, , .		0
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	<title>Stabilization, restoration, and resolution enhancement of a video sequence captured by a moving and vibrating platform</title>. , 2001, , .		0
128	Multi-dimensional imaging with lenslet arrays. , 2005, , .		0
129	Efficient compressive Fresnel holography. , 2010, , .		0
130	Compressive imaging for superresolution from a single exposure. , 2010, , .		0
131	Efficient reconstruction of 3D images from photon starved integral imaging using PMLEM. Proceedings of SPIE, 2011, , .	0.8	0
132	Compressive digital holography for reconstruction of partially occluded objects. , 2012, , .		0
133	Compressive moving objects localization techniques based on optical Radon projections. , 2013, , .		0
134	Multi-dimensional compressive imaging. Proceedings of SPIE, 2013, , .	0.8	0
135	Digital speckle reduction: a comparison between methods. , 2014, , .		0
136	Compressive and classical hyperspectral systems: a fundamental comparison. , 2015, , .		0
137	Feasibility of Radon projection acquisition for compressive imaging in MMW region based new video rate 16Å–16 GDD FPA camera. , 2015, , .		0
138	Spectral analysis of views interpolated by chroma subpixel downsampling for 3D autostereoscopic displays. , 2015, , .		0
139	Hurdles in the implementation of compressive sensing for imaging and ways to overcome them. , 2016, , .		0
140	Multidimensional optical sensing and imaging for displays, computational imaging, optical security, and healthcare. , 2016, , .		0