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	Advances in three-dimensional integral imaging: sensing, display, and applications [Invited]. Applied Optics, 2013, 52, 546.	1.8	464
2	Roadmap on optical security. Journal of Optics (United Kingdom), 2016, 18, 083001.	2.2	338
3	Three-Dimensional Image Sensing, Visualization, and Processing Using Integral Imaging. Proceedings of the IEEE, 2006, 94, 591-607.	21.3	337
4	Sampling of linear canonical transformed signals. Signal Processing, 2006, 86, 1421-1425.	3.7	158
5	Compressive Fresnel Holography. Journal of Display Technology, 2010, 6, 506-509.	1.2	149
6	Compressive hyperspectral imaging by random separable projections in both the spatial and the spectral domains. Applied Optics, 2013, 52, D46.	1.8	142
7	Wave formation mechanism in magnetic pulse welding. International Journal of Impact Engineering, 2010, 37, 397-404.	5.0	140
8	Compressed Imaging With a Separable Sensing Operator. IEEE Signal Processing Letters, 2009, 16, 449-452.	3.6	134
9	Roadmap on digital holography [Invited]. Optics Express, 2021, 29, 35078.	3.4	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.	1.5	124
11	Overview of compressive sensing techniques applied in holography [Invited]. Applied Optics, 2013, 52, A423.	1.8	118
12	Speckle denoising in digital holography by nonlocal means filtering. Applied Optics, 2013, 52, A195.	1.8	117
13	Roadmap on 3D integral imaging: sensing, processing, and display. Optics Express, 2020, 28, 32266.	3.4	105
14	3-D computational synthetic aperture integral imaging (COMPSAII). Optics Express, 2003, 11, 2446.	3.4	99
15	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
16	Phase-Modulated Optical System With Sparse Representation for Information Encoding and Authentication. IEEE Photonics Journal, 2013, 5, 6900113-6900113.	2.0	94
17	Single exposure super-resolution compressive imaging by double phase encoding. Optics Express, 2010, 18, 15094.	3.4	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. Signal, Image and Video Processing, 2007, 1, 359-367.	2.7	84
20	Interface phenomena in aluminiumâ€“magnesium magnetic pulse welding. Science and Technology of Welding and Joining, 2008, 13, 402-408.	3.1	78
21	Compressive sensing spectrometry based on liquid crystal devices. Optics Letters, 2013, 38, 4996.	3.3	77
22	Miniature Compressive Ultra-spectral Imaging System Utilizing a Single Liquid Crystal Phase Retarder. Scientific Reports, 2016, 6, 23524.	3.3	76
23	Integral holography: white-light single-shot hologram acquisition. Optics Express, 2007, 15, 5754.	3.4	67
24	Compression of 3D color integral images. Optics Express, 2004, 12, 1632.	3.4	65
25	Random Projections Imaging With Extended Space-Bandwidth Product. Journal of Display Technology, 2007, 3, 315-320.	1.2	64
26	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
27	Compressive multiple view projection incoherent holography. Optics Express, 2011, 19, 6109.	3.4	61
28	Analysis of practical sampling and reconstruction from Fresnel fields. Optical Engineering, 2004, 43, 239.	1.0	59
29	Three-dimensional photon counting integral imaging reconstruction using penalized maximum likelihood expectation maximization. Optics Express, 2011, 19, 19681.	3.4	58
30	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
31	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
32	Conditions for practicing compressive Fresnel holography. Optics Letters, 2011, 36, 3365.	3.3	51
33	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
34	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
35	Recovery of partially occluded objects by applying compressive Fresnel holography. Optics Letters, 2012, 37, 1757.	3.3	44
36	Multidimensional imaging using compressive Fresnel holography. Optics Letters, 2012, 37, 2013.	3.3	42

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37	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
38	Improved depth resolution by single-exposure in-line compressive holography. Applied Optics, 2013, 52, A223.	1.8	40
39	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
40	Compressed imaging system with linear sensors. Optics Letters, 2007, 32, 3077.	3.3	35
41	Experiments With Three-Dimensional Integral Imaging Under Low Light Levels. IEEE Photonics Journal, 2012, 4, 1188-1195.	2.0	35
42	Optical compressive change and motion detection. Applied Optics, 2012, 51, 2491.	1.8	32
43	Recognition of motion-blurred images by use of the method of moments. Applied Optics, 2002, 41, 2164.	2.1	31
44	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
45	Reconstruction guarantees for compressive tomographic holography. Optics Letters, 2013, 38, 2509.	3.3	30
46	DeepCubeNet: reconstruction of spectrally compressive sensed hyperspectral images with deep neural networks. Optics Express, 2019, 27, 35811.	3.4	30
47	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
48	Compressive sensing resonator spectroscopy. Optics Letters, 2017, 42, 25.	3.3	26
49	Progressive compressive imaging from Radon projections. Optics Express, 2012, 20, 4260.	3.4	23
50	Sparse synthetic aperture with Fresnel elements (S-SAFE) using digital incoherent holograms. Optics Express, 2015, 23, 20941.	3.4	21
51	Along-track scanning using a liquid crystal compressive hyperspectral imager. Optics Express, 2016, 24, 8446.	3.4	21
52	NIR hyperspectral compressive imager based on a modified Fabryâ€“Perot resonator. Journal of Optics (United Kingdom), 2018, 20, 044011.	2.2	19
53	Compressive 4D spectro-volumetric imaging. Optics Letters, 2016, 41, 5174.	3.3	19
54	Magnetic pulse welding of Al to Mg alloys: Structuralâ€“mechanical properties of the interfacial layer. Materials Science and Technology, 2011, 27, 1809-1813.	1.6	18

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55	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
56	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
57	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
58	Practical compressive sensing of large images. , 2009, , .		14
59	Restoration and resolution enhancement of a single image from a vibration-distorted image sequence. Optical Engineering, 2000, 39, 2451.	1.0	13
60	Modulation transfer function as a quality measure for compressed images transmitted over a lossy packet network. Optical Engineering, 2001, 40, 2134.	1.0	13
61	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
62	Three-Dimensional Super Resolution Reconstruction by Integral Imaging. Journal of Display Technology, 2015, 11, 947-952.	1.2	12
63	Super-resolution compressive imaging with anamorphic optics. Optics Express, 2013, 21, 25851.	3.4	10
64	Performance of target detection algorithm in compressive sensing miniature ultraspectral imaging compressed sensing system. Optical Engineering, 2017, 56, 041312.	1.0	10
65	Compressive imaging for defending deep neural networks from adversarial attacks. Optics Letters, 2021, 46, 1951.	3.3	10
66	General restoration filter for vibrated-image restoration. Applied Optics, 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. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2013, 30, 1069.	1.5	9
69	Restoration of interlaced images degraded by variable velocity motion. Optical Engineering, 2003, 42, 3557.	1.0	8
70	Information capacity gain by time-division multiplexing in three-dimensional integral imaging. Optics Letters, 2005, 30, 1135.	3.3	8
71	Three-Dimensional Imaging With Multiple Degrees of Freedom Using Data Fusion. Proceedings of the IEEE, 2015, 103, 1654-1671.	21.3	8
72	Motion-distorted composite-frame restoration. Applied Optics, 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.	1.2	7
75	Synthetic Aperture Integral Imaging Display With Moving Array Lenslet Technique. Journal of Display Technology, 2015, 11, 827-833.	1.2	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.	1.0	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.	5.6	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.	0.4	5
83	Hyperspectral compressive imaging. , 2013, , .		5
84	Compressive ultraspectral imaging using multiscale structured illumination. Applied Optics, 2019, 58, F32.	1.8	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.	1.5	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.	3.4	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.	1.0	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.	0.4	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.	0.9	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.	0.9	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.	2.9	1
119	Object localization and tracking in three dimensions by space-to-time encoding. Optics Express, 2022, 30, 12878.	3.4	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 16Ã—16 GDD FPA camera. , 2015, , .		0
138	Spectral analysis of views interpolated by chroma subpixel downsampling for 3D autosteroscopic 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