

# David J Brady

## List of Publications by Year in descending order

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87  
papers

5,862  
citations

126907  
33  
h-index

98798  
67  
g-index

88  
all docs

88  
docs citations

88  
times ranked

2376  
citing authors

#	ARTICLE	IF	CITATIONS
1	Single disperser design for coded aperture snapshot spectral imaging. Applied Optics, 2008, 47, B44.	2.1	694
2	Compressive Coded Aperture Spectral Imaging: An Introduction. IEEE Signal Processing Magazine, 2014, 31, 105-115.	5.6	471
3	Compressive Holography. Optics Express, 2009, 17, 13040.	3.4	468
4	Coded aperture compressive temporal imaging. Optics Express, 2013, 21, 10526.	3.4	320
5	Video rate spectral imaging using a coded aperture snapshot spectral imager. Optics Express, 2009, 17, 6368.	3.4	267
6	Multiframe image estimation for coded aperture snapshot spectral imagers. Applied Optics, 2010, 49, 6824.	2.1	230
7	Holography in artificial neural networks. Nature, 1990, 343, 325-330.	27.8	221
8	Rank Minimization for Snapshot Compressive Imaging. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2019, 41, 2990-3006.	13.9	207
9	Computational Snapshot Multispectral Cameras: Toward dynamic capture of the spectral world. IEEE Signal Processing Magazine, 2016, 33, 95-108.	5.6	178
10	Snapshot Compressive Imaging: Theory, Algorithms, and Applications. IEEE Signal Processing Magazine, 2021, 38, 65-88.	5.6	159
11	Video Compressive Sensing Using Gaussian Mixture Models. IEEE Transactions on Image Processing, 2014, 23, 4863-4878.	9.8	158
12	Compressive Hyperspectral Imaging With Side Information. IEEE Journal on Selected Topics in Signal Processing, 2015, 9, 964-976.	10.8	152
13	Human Tracking With Wireless Distributed Pyroelectric Sensors. IEEE Sensors Journal, 2006, 6, 1683-1696.	4.7	136
14	Compressive Sensing by Learning a Gaussian Mixture Model From Measurements. IEEE Transactions on Image Processing, 2015, 24, 106-119.	9.8	136
15	Multiscale lens design. Optics Express, 2009, 17, 10659.	3.4	129
16	Twin-Image-Free Holography: A Compressive Sensing Approach. Physical Review Letters, 2018, 121, 093902.	7.8	104
17	Spectral-temporal compressive imaging. Optics Letters, 2015, 40, 4054.	3.3	82
18	Visible Cone-Beam Tomography With a Lensless Interferometric Camera. Science, 1999, 284, 2164-2166.	12.6	78

#	ARTICLE	IF	CITATIONS
19	Thin infrared imaging systems through multichannel sampling. Applied Optics, 2008, 47, B1.	2.1	77
20	Single-sensor multispeaker listening with acoustic metamaterials. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 10595-10598.	7.1	66
21	Coded aperture snapshot spectral polarization imaging. Applied Optics, 2013, 52, 2153.	1.8	64
22	Reference structure tomography. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2004, 21, 1140.	1.5	62
23	Compressive holography of diffuse objects. Applied Optics, 2010, 49, H1.	2.1	62
24	Low-Cost Compressive Sensing for Color Video and Depth. , 2014, , .		62
25	Design and scaling of monocentric multiscale imagers. Applied Optics, 2012, 51, 4691.	1.8	61
26	Coded Hyperspectral Imaging and Blind Compressive Sensing. SIAM Journal on Imaging Sciences, 2013, 6, 782-812.	2.2	59
27	Compressive tomography. Advances in Optics and Photonics, 2015, 7, 756.	25.5	53
28	Snapshot molecular imaging using coded energy-sensitive detection. Optics Express, 2013, 21, 25480.	3.4	51
29	Multiplex sensors and the constant radiance theorem. Optics Letters, 2002, 27, 16.	3.3	50
30	Spatial light modulator based color polarization imaging. Optics Express, 2015, 23, 11912.	3.4	50
31	Snapshot 2D tomography via coded aperture x-ray scatter imaging. Applied Optics, 2013, 52, 4582.	1.8	44
32	PANDA: A Gigapixel-Level Human-Centric Video Dataset. , 2020, , .		42
33	Image translation for single-shot focal tomography. Optica, 2015, 2, 822.	9.3	39
34	Generalized sampling using a compound-eye imaging system for multi-dimensional object acquisition. Optics Express, 2010, 18, 19367.	3.4	36
35	Adaptive temporal compressive sensing for video. , 2013, , .		36
36	Parallel cameras. Optica, 2018, 5, 127.	9.3	36

#	ARTICLE	IF	CITATIONS
37	Compression at the Physical Interface. IEEE Signal Processing Magazine, 2008, 25, 67-71.	5.6	32
38	Microcamera aperture scale in monocentric gigapixel cameras. Applied Optics, 2011, 50, 5824.	2.1	30
39	Coded apertures for x-ray scatter imaging. Applied Optics, 2013, 52, 7745.	1.8	29
40	Compressive video sensors using multichannel imagers. Applied Optics, 2010, 49, B9.	2.1	28
41	Design of a spherical focal surface using close-packed relay optics. Optics Express, 2011, 19, 16132.	3.4	27
42	Multiscale gigapixel video: A cross resolution image matching and warping approach. , 2017, , .		26
43	Snapshot fan beam coded aperture coherent scatter tomography. Optics Express, 2016, 24, 18277.	3.4	23
44	Full field-of-view digital lens-free holography for weak-scattering objects based on grating modulation. Applied Optics, 2018, 57, A164.	1.8	22
45	Efficient patch-based approach for compressive depth imaging. Applied Optics, 2016, 55, 7556.	2.1	20
46	A modular hierarchical array camera. Light: Science and Applications, 2021, 10, 37.	16.6	19
47	Deep Learning for Camera Autofocus. IEEE Transactions on Computational Imaging, 2021, 7, 258-271.	4.4	19
48	Deep learning for camera data acquisition, control, and image estimation. Advances in Optics and Photonics, 2020, 12, 787.	25.5	19
49	CrossNet++: Cross-Scale Large-Parallax Warping for Reference-Based Super-Resolution. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2021, 43, 4291-4305.	13.9	16
50	Galilean monocentric multiscale optical systems. Optics Express, 2017, 25, 20332.	3.4	14
51	Heterogeneous camera array for multispectral light field imaging. Optics Express, 2017, 25, 14008.	3.4	14
52	Coding for compressive focal tomography. Applied Optics, 2011, 50, 4436.	2.1	12
53	Gaussian mixture model for video compressive sensing. , 2013, , .		12
54	Signal Recovery and System Calibration from Multiple Compressive Poisson Measurements. SIAM Journal on Imaging Sciences, 2015, 8, 1923-1954.	2.2	12

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55	Noise suppression for ballistic-photons based on compressive in-line holographic imaging through an inhomogeneous medium. Optics Express, 2020, 28, 10337.	3.4	12
56	Snapshot ptychography on array cameras. Optics Express, 2022, 30, 2585.	3.4	12
57	Complementary coded apertures for 4-dimensional x-ray coherent scatter imaging. Optics Express, 2014, 22, 22925.	3.4	11
58	Efficient block-wise algorithm for compressive holography. Optics Express, 2017, 25, 24991.	3.4	11
59	A testbed for wide-field, high-resolution, gigapixel-class cameras. Review of Scientific Instruments, 2013, 84, 053107.	1.3	9
60	Field of view in monocentric multiscale cameras. Applied Optics, 2018, 57, 6999.	1.8	9
61	Coded Apertures in Mass Spectrometry. Annual Review of Analytical Chemistry, 2017, 10, 141-156.	5.4	8
62	Resolution and sampling analysis in digital in-line holography with spherical wave illumination. Optical Engineering, 2019, 59, 1.	1.0	8
63	Compressive extended depth of field using image space coding. , 2014, , .		8
64	Integrated analysis and design of analog and digital processing in imaging systems: introduction to the feature issue. Applied Optics, 2002, 41, 6049.	2.1	6
65	Computational optical sensing and imaging: introduction to the feature issue. Applied Optics, 2008, 47, COSI1.	2.1	6
66	Distributed binary geometric sensor arrays for low-data-throughput human gait biometrics. , 2012, , .		5
67	Autofocus for a multiscale gigapixel camera. Applied Optics, 2013, 52, 8146.	1.8	5
68	High-resolution spectral video acquisition. Frontiers of Information Technology and Electronic Engineering, 2017, 18, 1250-1260.	2.6	5
69	Reconstructing and segmenting hyperspectral images from compressed measurements. , 2011, , .		4
70	<title>Three dimensional imaging with the argus sensor array</title>. , 2002, , .		3
71	Fast disambiguation of superimposed images for increased field of view. , 2008, , .		3
72	Spectrally grouped total variation reconstruction for scatter imaging using ADMM. , 2015, , .		3

#	ARTICLE	IF	CITATIONS
73	Model-Based Multiscale Gigapixel Image Formation Pipeline on GPU. IEEE Transactions on Computational Imaging, 2017, 3, 493-502.	4.4	3
74	Editorial: Introduction to the Special Issue on Deep Learning for High-Dimensional Sensing. IEEE Journal on Selected Topics in Signal Processing, 2022, 16, 603-607.	10.8	2
75	LIGHT PROPAGATING IN METAL SUB-WAVELENGTH-HOLE ARRAYS. Nano, 2010, 05, 295-300.	1.0	1
76	Gigapixel holography. , 2011, , .		1
77	Millimeter wave surface and reflectivity estimation based on sparse time of flight measurements. , 2014, , .		1
78	Compressive Sampling for Array Cameras. SIAM Journal on Imaging Sciences, 2021, 14, 156-177.	2.2	1
79	Photon-limited bounds for phase retrieval. Optics Express, 2021, 29, 16736.	3.4	1
80	Distributed focus and digital zoom. Engineering Research Express, 2020, 2, 035019.	1.6	1
81	A Tandem Fabry-Perot Volume Hologram Spectrometer with High Resolution. , 2006, , .		0
82	An Ultra-High Resolution Spectrometer with Successive Combination of a Fabry-Perot Etalon and a Cylindrical Beam Volume Hologram. , 2007, , .		0
83	Computational photography and compressive holography. , 2010, , .		0
84	Big snapshot stitching with scarce overlap. , 2013, , .		0
85	Signal decoupling in digital holography via compressive sensing. , 2019, , .		0
86	Optical Processing for Artificial Neural Vision. , 2021, , .		0
87	Configurable cameras with MMS architecture. , 2018, , .		0