

# Adam Gibson

## List of Publications by Year in descending order

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Version: 2024-02-01

70  
papers

2,619  
citations

236925

25  
h-index

189892

50  
g-index

70  
all docs

70  
docs citations

70  
times ranked

2040  
citing authors

#	ARTICLE	IF	CITATIONS
1	Three-dimensional optical tomography of the premature infant brain. <i>Physics in Medicine and Biology</i> , 2002, 47, 4155-4166.	3.0	254
2	Diffuse optical imaging of the healthy and diseased breast: A systematic review. <i>Breast Cancer Research and Treatment</i> , 2008, 108, 9-22.	2.5	251
3	Three-Dimensional Electrical Impedance Tomography of Human Brain Activity. <i>NeuroImage</i> , 2001, 13, 283-294.	4.2	165
4	Numerical modelling and image reconstruction in diffuse optical tomography. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2009, 367, 3073-3093.	3.4	158
5	Imaging changes in blood volume and oxygenation in the newborn infant brain using three-dimensional optical tomography. <i>Physics in Medicine and Biology</i> , 2004, 49, 1117-1130.	3.0	145
6	Electrical impedance tomography of human brain function using reconstruction algorithms based on the finite element method. <i>NeuroImage</i> , 2003, 20, 752-764.	4.2	141
7	Diffuse optical imaging. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2009, 367, 3055-3072.	3.4	131
8	Three-dimensional whole-head optical tomography of passive motor evoked responses in the neonate. <i>NeuroImage</i> , 2006, 30, 521-528.	4.2	120
9	Optical tomography of the breast using a multi-channel time-resolved imager. <i>Physics in Medicine and Biology</i> , 2005, 50, 2503-2517.	3.0	97
10	A systematic review of computer-assisted diagnosis in diagnostic cancer imaging. <i>European Journal of Radiology</i> , 2012, 81, e70-e76.	2.6	88
11	Three dimensional optical imaging of blood volume and oxygenation in the neonatal brain. <i>NeuroImage</i> , 2006, 31, 1426-1433.	4.2	86
12	Imaging Cerenkov emission as a quality assurance tool in electron radiotherapy. <i>Physics in Medicine and Biology</i> , 2014, 59, 1963-1978.	3.0	72
13	Validation of a 3D reconstruction algorithm for EIT of human brain function in a realistic head-shaped tank. <i>Physiological Measurement</i> , 2001, 22, 177-185.	2.1	55
14	Selection of regularization parameter for optical topography. <i>Journal of Biomedical Optics</i> , 2009, 14, 034044.	2.6	52
15	Optical tomography of a realistic neonatal head phantom. <i>Applied Optics</i> , 2003, 42, 3109.	2.1	48
16	Computing in optics - Computational aspects of diffuse optical tomography. <i>Computing in Science and Engineering</i> , 2003, 5, 33-41.	1.2	42
17	Electrical impedance tomography of human brain activity with a two-dimensional ring of scalp electrodes. <i>Physiological Measurement</i> , 2001, 22, 167-175.	2.1	40
18	Solving the forward problem in electrical impedance tomography for the human head using IDEAS (integrated design engineering analysis software), a finite element modelling tool. <i>Physiological Measurement</i> , 2001, 22, 55-64.	2.1	40

#	ARTICLE	IF	CITATIONS
19	Optical tomography of breast cancer—monitoring response to primary medical therapy. Targeted Oncology, 2009, 4, 219-233.	3.6	39
20	Transient haemodynamic events in neurologically compromised infants: A simultaneous EEG and diffuse optical imaging study. NeuroImage, 2011, 55, 1610-1616.	4.2	38
21	Two-dimensional finite element modelling of the neonatal head. Physiological Measurement, 2000, 21, 45-52.	2.1	35
22	Assessment of an in situ temporal calibration method for time-resolved optical tomography. Journal of Biomedical Optics, 2003, 8, 87.	2.6	35
23	Terahertz Time-Domain Spectroscopy of Human Blood. IEEE Transactions on Terahertz Science and Technology, 2013, 3, 363-367.	3.1	29
24	Quality assurance in proton beam therapy using a plastic scintillator and a commercially available digital camera. Journal of Applied Clinical Medical Physics, 2017, 18, 210-219.	1.9	29
25	Design of a portable near infrared system for topographic imaging of the brain in babies. Review of Scientific Instruments, 2004, 75, 3276-3283.	1.3	28
26	Identification of the optimal wavelengths for optical topography: a photon measurement density function analysis. Journal of Biomedical Optics, 2010, 15, 056002.	2.6	26
27	Understanding multispectral imaging of cultural heritage: Determining best practice in MSI analysis of historical artefacts. Journal of Cultural Heritage, 2020, 45, 339-350.	3.3	26
28	A 3D In Vitro Cancer Model as a Platform for Nanoparticle Uptake and Imaging Investigations. Small, 2014, 10, 3954-3961.	10.0	25
29	Monitoring recovery after laser surgery of the breast with optical tomography: a case study. Applied Optics, 2005, 44, 1898.	2.1	23
30	Monitoring the response to neoadjuvant hormone therapy for locally advanced breast cancer using three-dimensional time-resolved optical mammography. Journal of Biomedical Optics, 2013, 18, 056012.	2.6	22
31	An assessment of multimodal imaging of subsurface text in mummy cartonnage using surrogate papyrus phantoms. Heritage Science, 2018, 6, .	2.3	22
32	Comparison between a time-domain and a frequency-domain system for optical tomography. Journal of Biomedical Optics, 2006, 11, 064015.	2.6	21
33	Assessment and Calibration of a Low-Frequency System for Electrical Impedance Tomography (EIT), Optimized for Use in Imaging Brain Function in Ambulant Human Subjects. Annals of the New York Academy of Sciences, 1999, 873, 512-519.	3.8	18
34	Monitoring the Response to Primary Medical Therapy for Breast Cancer Using Three-Dimensional Time-Resolved Optical Mammography. Technology in Cancer Research and Treatment, 2011, 10, 533-547.	1.9	15
35	Co-registered combined OCT and THz imaging to extract depth and refractive index of a tissue-equivalent test object. Biomedical Optics Express, 2020, 11, 1417.	2.9	14
36	Multi-dimensional time-correlated single photon counting applied to diffuse optical tomography. , 2005, , .		13

#	ARTICLE	IF	CITATIONS
37	A tissue equivalent phantom for simultaneous near-infrared optical tomography and EEG. Biomedical Optics Express, 2010, 1, 425.	2.9	13
38	Combination of Boundary Element Method and Finite Element Method in Diffuse Optical Tomography. IEEE Transactions on Biomedical Engineering, 2010, 57, 2737-2745.	4.2	12
39	Three-dimensional optical topography of brain activity in infants watching videos of human movement. Physics in Medicine and Biology, 2012, 57, 1135-1146.	3.0	12
40	Technical Note: Simulation of dose buildup in proton pencil beams. Medical Physics, 2019, 46, 3734-3738.	3.0	12
41	Automated estimation of disease recurrence in head and neck cancer using routine healthcare data. Computer Methods and Programs in Biomedicine, 2014, 117, 412-424.	4.7	11
42	The value of critical destruction: Evaluating multispectral image processing methods for the analysis of primary historical texts. Digital Scholarship in the Humanities, 0, , fqv036.	0.7	11
43	Evaluating real-time image reconstruction in diffuse optical tomography using physiologically realistic test data. Biomedical Optics Express, 2015, 6, 4719.	2.9	10
44	A Review of Mechanisms of Contrast for Diffuse Optical Imaging of Cancer. Journal of Near Infrared Spectroscopy, 2012, 20, 185-202.	1.5	9
45	Dose ratio proton radiography using the proximal side of the Bragg peak. Medical Physics, 2015, 42, 1871-1883.	3.0	9
46	Diffuse optical tomography for the detection of perinatal stroke at the cot side: a pilot study. Pediatric Research, 2019, 85, 1001-1007.	2.3	9
47	Diffuse optical cortical mapping using the boundary element method. Biomedical Optics Express, 2011, 2, 568.	2.9	8
48	A comparison of the dose distributions from three proton treatment planning systems in the planning of meningioma patients with single-field uniform dose pencil beam scanning. Journal of Applied Clinical Medical Physics, 2015, 16, 86-99.	1.9	8
49	Improved X-ray computed tomography reconstruction of the largest fragment of the Antikythera Mechanism, an ancient Greek astronomical calculator. PLoS ONE, 2018, 13, e0207430.	2.5	8
50	Multispectral Imaging of Degraded Parchment. Lecture Notes in Computer Science, 2013, , 143-157.	1.3	8
51	Breast cancer risk scores in a standard screening population. Breast Cancer Management, 2013, 2, 463-479.	0.2	5
52	Sampling of explosive residues: The use of a gelatine-based medium for the recovery of ammonium nitrate. Science and Justice - Journal of the Forensic Science Society, 2020, 60, 531-537.	2.1	5
53	Development of a Reconstruction Algorithm for Imaging Impedance Changes in the Human Head. Annals of the New York Academy of Sciences, 1999, 873, 482-492.	3.8	4
54	Assessing the validity of modulation transfer function evaluation techniques with application to small area and scanned digital detectors. Review of Scientific Instruments, 2008, 79, 113103.	1.3	4

#	ARTICLE	IF	CITATIONS
55	Validation of the use of homogeneous reference phantoms for optical tomography of the neonatal brain. , 2003, , .		3
56	Diffuse optical imaging of the newborn infant brain. , 2012, , .		3
57	Range verification for eye proton therapy based on proton-induced x-ray emissions from implanted metal markers. Physics in Medicine and Biology, 2014, 59, 2623-2638.	3.0	3
58	Identification of the optimal wavelengths in optical topography using photon density measurement functions. , 2009, , .		2
59	The impact of force, time, and rotation on the transfer of ammonium nitrate: A reductionist approach to understanding evidence dynamics. Science and Justice - Journal of the Forensic Science Society, 2022, 62, 129-136.	2.1	2
60	Cambrian edrioasteroid reveals new mechanism for secondary reduction of the skeleton in echinoderms. Proceedings of the Royal Society B: Biological Sciences, 2022, 289, 20212733.	2.6	2
61	Pulse oximetry as a medical physics practical on school trips. Physics Education, 2009, 44, 577-581.	0.5	1
62	Continuing the success of Biomedical Optics Express: editorial. Biomedical Optics Express, 2016, 7, 420.	2.9	1
63	Affine registration of multispectral images of historical documents for optimized feature recovery. Digital Scholarship in the Humanities, 2019, , .	0.7	1
64	Simultaneous EEG and diffuse optical imaging of seizure-related hemodynamic activity in the newborn infant brain. Proceedings of SPIE, 2012, , .	0.8	0
65	Three-dimensional optical imaging of hemodynamic and oxygenation changes in the newborn infant brain. , 2004, , .		0
66	Optimal Selection of the Regularization Parameter for Optical Topography Image Reconstruction. , 2008, , .		0
67	Time-resolved optical imaging for monitoring response of breast cancer patients to therapy. , 2012, , .		0
68	Cultural Heritage Destruction: Experiments with Parchment and Multispectral Imaging. , 2016, , 121-146.		0
69	Correction of Dropped Frames in High-resolution Push-broom Hyperspectral Images for Cultural Heritage. Journal on Computing and Cultural Heritage, 2022, 15, 1-19.	2.1	0
70	Farewell editorial. Biomedical Optics Express, 2022, 13, 408.	2.9	0