Simon R Arridge

List of Publications by Year
in descending order

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393 papers	17,681 citations	14614 66 h-index	17055 122 g-index
398 all docs	398 docs citations	398 times ranked	9328 citing authors

#	Article	IF	Citations
1	DAGAN: Deep De-Aliasing Generative Adversarial Networks for Fast Compressed Sensing MRI Reconstruction. IEEE Transactions on Medical Imaging, 2018, 37, 1310-1321.	5.4	724
2	A finite element approach for modeling photon transport in tissue. Medical Physics, 1993, 20, 299-309.	1.6	554
3	Quantitative spectroscopic photoacoustic imaging: a review. Journal of Biomedical Optics, 2012, 17, 061202.	1.4	550
4	Optical imaging in medicine: II. Modelling and reconstruction. Physics in Medicine and Biology, 1997, 42, 841-853.	1.6	489
5	Optical tomography: forward and inverse problems. Inverse Problems, 2009, 25, 123010.	1.0	468
6	Optical imaging in medicine: I. Experimental techniques. Physics in Medicine and Biology, 1997, 42, 825-840.	1.6	422
7	A survey of hierarchical non-linear medical image registration. Pattern Recognition, 1999, 32, 129-149.	5.1	422
8	Theoretical and experimental investigation of near-infrared light propagation in a model of the adult head. Applied Optics, 1997, 36, 21.	2.1	383
9	Solving inverse problems using data-driven models. Acta Numerica, 2019, 28, 1-174.	6.3	359
10	Three-dimensional in vivo fluorescence diffuse optical tomography of breast cancer in humans. Optics Express, 2007, 15, 6696.	1.7	357
11	Nonuniqueness in diffusion-based optical tomography. Optics Letters, 1998, 23, 882.	1.7	327
12	Attenuation Correction Synthesis for Hybrid PET-MR Scanners: Application to Brain Studies. IEEE Transactions on Medical Imaging, 2014, 33, 2332-2341.	5.4	311
13	Photon-measurement density functions Part I: Analytical forms. Applied Optics, 1995, 34, 7395.	2.1	274
14	Photon-measurement density functions Part 2: Finite-element-method calculations. Applied Optics, 1995, 34, 8026.	2.1	270
15	Diffuse optical tomography of breast cancer during neoadjuvant chemotherapy: A case study with comparison to MRI. Medical Physics, 2005, 32, 1128-1139.	1.6	261
16	Three-dimensional optical tomography of the premature infant brain. Physics in Medicine and Biology, 2002, 47, 4155-4166.	1.6	254
17	Sources of intensity nonuniformity in spin echo images at 1.5 T. Magnetic Resonance in Medicine, 1994, 32, 121-128.	1.9	239
18	A gradient-based optimisation scheme for optical tomography. Optics Express, 1998, 2, 213.	1.7	212

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19	Model-Based Learning for Accelerated, Limited-View 3-D Photoacoustic Tomography. IEEE Transactions on Medical Imaging, 2018, 37, 1382-1393.	5.4	212
20	An investigation of light transport through scattering bodies with non-scattering regions. Physics in Medicine and Biology, 1996, 41, 767-783.	1.6	208
21	Two-dimensional quantitative photoacoustic image reconstruction of absorption distributions in scattering media by use of a simple iterative method. Applied Optics, 2006, 45, 1866.	2.1	207
22	k-space propagation models for acoustically heterogeneous media: Application to biomedical photoacoustics. Journal of the Acoustical Society of America, 2007, 121, 3453.	0.5	203
23	The Toast++ software suite for forward and inverse modeling in optical tomography. Journal of Biomedical Optics, 2014, 19, 040801.	1.4	202
24	Diffuse optical tomography with spectral constraints and wavelength optimization. Applied Optics, 2005, 44, 2082.	2.1	192
25	Gaussâ€“Newton method for image reconstruction in diffuse optical tomography. Physics in Medicine and Biology, 2005, 50, 2365-2386.	1.6	189
26	Differentiation of benign and malignant breast tumors by in-vivo three-dimensional parallel-plate diffuse optical tomography. Journal of Biomedical Optics, 2009, 14, 024020.	1.4	189
27	Uniqueness and wavelength optimization in continuous-wave multispectral diffuse optical tomography. Optics Letters, 2003, 28, 2339.	1.7	168
28	Measurement of Optical Path Length for Cerebral Near-Infrared Spectroscopy in Newborn Infants. Developmental Neuroscience, 1990, 12, 140-144.	1.0	164
29	The finite element model for the propagation of light in scattering media: A direct method for domains with nonscattering regions. Medical Physics, 2000, 27, 252-264.	1.6	153
30	Application of the finite-element method for the forward and inverse models in optical tomography. Journal of Mathematical Imaging and Vision, 1993, 3, 263-283.	0.8	146
31	Realâ€time cardiovascular MR with spatioâ€temporal artifact suppression using deep learningâ€“proof of concept in congenital heart disease. Magnetic Resonance in Medicine, 2019, 81, 1143-1156.	1.9	146
32	Imaging changes in blood volume and oxygenation in the newborn infant brain using three-dimensional optical tomography. Physics in Medicine and Biology, 2004, 49, 1117-1130.	1.6	145
33	Time resolved optical tomography of the human forearm. Physics in Medicine and Biology, 2001, 46, 1117-1130.	1.6	137
34	Solving Boundary Integral Problems with BEM++. ACM Transactions on Mathematical Software, 2015, 41, 1-40.	1.6	134
35	Image reconstruction in optical tomography. Philosophical Transactions of the Royal Society B: Biological Sciences, 1997, 352, 717-726.	1.8	133
36	Three-dimensional time-resolved optical tomography of a conical breast phantom. Applied Optics, 2001, 40, 3278.	2.1	128

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37	Three dimensionaldigitization of the face and skull. Journal of Maxillofacial Surgery, 1985, 13, 136-143.	0.5	125
38	Three-dimensional whole-head optical tomography of passive motor evoked responses in the neonate. NeuroImage, 2006, 30, 521-528.	2.1	120
39	Accelerated high-resolution photoacoustic tomography via compressed sensing. Physics in Medicine and Biology, 2016, 61, 8908-8940.	1.6	112
40	Simultaneous imaging and optode calibration with diffuse optical tomography. Optics Express, 2001, 8, 263.	1.7	109
41	Time-series estimation of biological factors in optical diffusion tomography. Physics in Medicine and Biology, 2003, 48, 1491-1504.	1.6	108
42	Dynamic MR Image Reconstructionâ€“Separation From Undersampled (${f k},t$)-Space via Low-Rank Plus Sparse Prior. IEEE Transactions on Medical Imaging, 2014, 33, 1689-1701.	5.4	106
43	Joint reconstruction of PET-MRI by exploiting structural similarity. Inverse Problems, 2015, 31, 015001.	1.0	106
44	Application of temporal filters to time resolved data in optical tomography. Physics in Medicine and Biology, 1999, 44, 1699-1717.	1.6	105
45	Anisotropic effects in highly scattering media. Physical Review E, 2003, 68, 031908.	0.8	105
46	Dynamic physiological modeling for functional diffuse optical tomography. NeuroImage, 2006, 30, 88-101.	2.1	105
47	Use of anisotropic modelling in electrical impedance tomography; Description of method and preliminary assessment of utility in imaging brain function in the adult human head. NeuroImage, 2008, 43, 258-268.	2.1	105
48	Coupled radiative transfer equation and diffusion approximation model for photon migration in turbid medium with low-scattering and non-scattering regions. Physics in Medicine and Biology, 2005, 50, 4913-4930.	1.6	100
49	Towards next-generation time-domain diffuse optics for extreme depth penetration and sensitivity. Biomedical Optics Express, 2015, 6, 1749.	1.5	100
50	Optical tomography of the breast using a multi-channel time-resolved imager. Physics in Medicine and Biology, 2005, 50, 2503-2517.	1.6	97
51	PET Image Reconstruction Using Information Theoretic Anatomical Priors. IEEE Transactions on Medical Imaging, 2011, 30, 537-549.	5.4	96
52	A Nonrigid Registration Framework Using Spatially Encoded Mutual Information and Free-Form Deformations. IEEE Transactions on Medical Imaging, 2011, 30, 1819-1828.	5.4	90
53	A computer system for the interactive planning and prediction of maxillofacial surgery. American Journal of Orthodontics and Dentofacial Orthopedics, 1988, 94, 469-475.	0.8	87
54	Three-dimensional time-resolved optical mammography of the uncompressed breast. Applied Optics, 2007, 46, 3628.	2.1	87

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55	Three dimensional optical imaging of blood volume and oxygenation in the neonatal brain. NeuroImage, 2006, 31, 1426-1433.	2.1	86
56	Calibration techniques and datatype extraction for time-resolved optical tomography. Review of Scientific Instruments, 2000, 71, 3415-3427.	0.6	84
57	Optical tomography in the presence of void regions. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2000, 17, 1659.	0.8	82
58	Diffusion tensor magnetic resonance image regularization. Medical Image Analysis, 2004, 8, 47-67.	7.0	82
59	Multifrequency Electrical Impedance Tomography Using Spectral Constraints. IEEE Transactions on Medical Imaging, 2014, 33, 340-350.	5.4	82
60	PET Reconstruction With an Anatomical MRI Prior Using Parallel Level Sets. IEEE Transactions on Medical Imaging, 2016, 35, 2189-2199.	5.4	82
61	<title>Reconstruction methods for infrared absorption imaging</title>. , 1991, 1431, 204.		81
62	On the adjoint operator in photoacoustic tomography. Inverse Problems, 2016, 32, 115012.	1.0	79
63	A method for three-dimensional time-resolved optical tomography. International Journal of Imaging Systems and Technology, 2000, 11, 2-11.	2.7	77
64	Practical PET Respiratory Motion Correction in Clinical PET/MR. Journal of Nuclear Medicine, 2015, 56, 890-896.	2.8	76
65	Direct calculation of the moments of the distribution of photon time of flight in tissue with a finite-element method. Applied Optics, 1995, 34, 2683.	2.1	74
66	Three-dimensional reconstruction of shape and piecewise constant region values for optical tomography using spherical harmonic parametrization and a boundary element method. Inverse Problems, 2006, 22, 1509-1532.	1.0	68
67	Fast silicon photomultiplier improves signal harvesting and reduces complexity in time-domain diffuse optics. Optics Express, 2015, 23, 13937.	1.7	68
68	Simultaneous reconstruction of absorption and scattering images by multichannel measurement of purely temporal data. Optics Letters, 1999, 24, 534.	1.7	66
69	Vector-Valued Image Processing by Parallel Level Sets. IEEE Transactions on Image Processing, 2014, 23, 9-18.	6.0	66
70	Single-pixel optical camera for video rate ultrasonic imaging. Optica, 2016, 3, 26.	4.8	66
71	Model-Based Imaging of Cardiac Apparent Conductivity and Local Conduction Velocity for Diagnosis and Planning of Therapy. IEEE Transactions on Medical Imaging, 2008, 27, 1631-1642.	5.4	63
72	<title>Data analysis methods for near-infrared spectroscopy of tissue: problems in determining the relative cytochrome aa<formula><inf><roman>3</roman></inf></formula> concentration</title>. , 1991, 1431, 251.		62

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73	Simulation of MRI cluster plots and application to neurological segmentation. Magnetic Resonance Imaging, 1996, 14, 73-92.	1.0	62
74	Comparison of two- and three-dimensional reconstruction methods in optical tomography. Applied Optics, 1998, 37, 7419.	2.1	62
75	MARGINALIZATION OF UNINTERESTING DISTRIBUTED PARAMETERS IN INVERSE PROBLEMSÂ—APPLICATION TO DIFFUSE OPTICAL TOMOGRAPHY. , 2011, 1, 1-17.		62
76	The finite-element method for the propagation of light in scattering media: Frequency domain case. Medical Physics, 1997, 24, 895-902.	1.6	61
77	Stroke type differentiation using spectrally constrained multifrequency EIT: evaluation of feasibility in a realistic head model. Physiological Measurement, 2014, 35, 1051-1066.	1.2	61
78	A 4D neonatal head model for diffuse optical imaging of pre-term to term infants. NeuroImage, 2014, 100, 385-394.	2.1	61
79	Boundary conditions for light propagation in diffusive media with nonscattering regions. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2000, 17, 1671.	0.8	59
80	State-estimation approach to the nonstationary optical tomography problem. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2003, 20, 876.	0.8	59
81	Methods in diffuse optical imaging. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 4558-4576.	1.6	58
82	Fluorescence diffuse optical tomography using the split Bregman method. Medical Physics, 2011, 38, 6275-6284.	1.6	57
83	Diffuse photon propagation in multilayered geometries. Physics in Medicine and Biology, 2006, 51, 497-516.	1.6	56
84	Instrumentation and calibration methods for the multichannel measurement of phase and amplitude in optical tomography. Review of Scientific Instruments, 2005, 76, 044302.	0.6	55
85	Imaging through scattering media by the use of an analytical model of perturbation amplitudes in the time domain. Applied Optics, 1996, 35, 6788.	2.1	50
86	<title>Iterative reconstruction of near-infrared absorption images</title>. , 1992, 1767, 372.		48
87	Optical tomography of a realistic neonatal head phantom. Applied Optics, 2003, 42, 3109.	2.1	48
88	Bayesian Image Reconstruction in Quantitative Photoacoustic Tomography. IEEE Transactions on Medical Imaging, 2013, 32, 2287-2298.	5.4	48
89	Estimation of an image derived input function with MR-defined carotid arteries in FDG-PET human studies using a novel partial volume correction method. Journal of Cerebral Blood Flow and Metabolism, 2017, 37, 1398-1409.	2.4	48
90	Fluorescence lifetime imaging by using time-gated data acquisition. Applied Optics, 2007, 46, 7384.	2.1	47

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91	In vivo fluorescence lifetime tomography of a FRET probe expressed in mouse. Biomedical Optics Express, 2011, 2, 1907.	1.5	47
92	Image reconstruction in optical tomography in the presence of coupling errors. Applied Optics, 2007, 46, 2743.	2.1	46
93	Approximation errors and model reduction in three-dimensional diffuse optical tomography. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2009, 26, 2257.	0.8	45
94	Full-wavelet approach for fluorescence diffuse optical tomography with structured illumination. Optics Letters, 2010, 35, 3676.	1.7	45
95	Accelerated Optical Projection Tomography Applied to In Vivo Imaging of Zebrafish. PLoS ONE, 2015, 10, e0136213.	1.1	45
96	A generalized framework unifying image registration and respiratory motion models and incorporating image reconstruction, for partial image data or full images. Physics in Medicine and Biology, 2017, 62, 4273-4292.	1.6	43
97	Computing in optics - Computational aspects of diffuse optical tomography. Computing in Science and Engineering, 2003, 5, 33-41.	1.2	42
98	Fast 3D optical reconstruction in turbid media using spatially modulated light. Biomedical Optics Express, 2010, 1, 471.	1.5	42
99	Multiple-slice imaging of a tissue-equivalent phantom by use of time-resolved optical tomography. Applied Optics, 2000, 39, 3380.	2.1	41
100	Maximum-Likelihood Joint Image Reconstruction/Motion Estimation in Attenuation-Corrected Respiratory Gated PET/CT Using a Single Attenuation Map. IEEE Transactions on Medical Imaging, 2016, 35, 217-228.	5.4	41
101	Reconstructing absorption and diffusion shape profiles in optical tomography by a level set technique. Optics Letters, 2006, 31, 471.	1.7	40
102	A matrix-free algorithm for multiple wavelength fluorescence tomography. Optics Express, 2009, 17, 3042.	1.7	40
103	NiftyPET: a High-throughput Software Platform for High Quantitative Accuracy and Precision PET Imaging and Analysis. Neuroinformatics, 2018, 16, 95-115.	1.5	40
104	Fast image reconstruction in fluoresence optical tomography using data compression. Optics Letters, 2010, 35, 763.	1.7	39
105	Variable order spherical harmonic expansion scheme for the radiative transport equation using finite elements. Journal of Computational Physics, 2011, 230, 7364-7383.	1.9	39
106	Fluorescence molecular tomography of an animal model using structured light rotating view acquisition. Journal of Biomedical Optics, 2013, 18, 020503.	1.4	39
107	Rapid whole-heart CMR with single volume super-resolution. Journal of Cardiovascular Magnetic Resonance, 2020, 22, 56.	1.6	39
108	Split operator method for fluorescence diffuse optical tomography using anisotropic diffusion regularisation with prior anatomical information. Biomedical Optics Express, 2011, 2, 2632.	1.5	38

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109	Optode positional calibration in diffuse optical tomography. Applied Optics, 2003, 42, 3154.	2.1	37
110	Temporal propagation of spatial information in turbid media. Optics Letters, 2008, 33, 2836.	1.7	37
111	Quantitative photoacoustic tomography using forward and adjoint Monte Carlo models of radiance. Journal of Biomedical Optics, 2016, 21, 126004.	1.4	36
112	Validity conditions for the radiative transfer equation. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2003, 20, 2046.	0.8	35
113	Multi-contrast attenuation map synthesis for PET/MR scanners: assessment on FDG and Florbetapir PET tracers. European Journal of Nuclear Medicine and Molecular Imaging, 2015, 42, 1447-1458.	3.3	35
114	Direct Estimation of Optical Parameters From Photoacoustic Time Series in Quantitative Photoacoustic Tomography. IEEE Transactions on Medical Imaging, 2016, 35, 2497-2508.	5.4	35
115	Image reconstruction in diffuse optical tomography using the coupled radiative transportâ€“diffusion model. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 2600-2608.	1.1	34
116	Detection of inhomogeneities in diffusive media using spatially modulated light. Optics Letters, 2009, 34, 2156.	1.7	33
117	Direct parametric reconstruction from undersampled (k, t)-space data in dynamic contrast enhanced MRI. Medical Image Analysis, 2014, 18, 989-1001.	7.0	33
118	Experimental validation of Monte Carlo and finite-element methods for the estimation of the optical path length in inhomogeneous tissue. Applied Optics, 1996, 35, 3362.	2.1	32
119	Markov random field and Gaussian mixture for segmented MRI-based partial volume correction in PET. Physics in Medicine and Biology, 2012, 57, 6681-6705.	1.6	32
120	A Reconstruction-Classification Method for Multifrequency Electrical Impedance Tomography. IEEE Transactions on Medical Imaging, 2015, 34, 1486-1497.	5.4	32
121	MR Imagingâ€“Guided Partial Volume Correction of PET Data in PET/MR Imaging. PET Clinics, 2016, 11, 161-177.	1.5	32
122	Corrections to linear methods for diffuse optical tomography using approximation error modelling. Biomedical Optics Express, 2010, 1, 209.	1.5	31
123	Attenuation Correction Synthesis for Hybrid PET-MR Scanners. Lecture Notes in Computer Science, 2013, 16, 147-154.	1.0	31
124	<title>Sensitivity to prior knowledge in optical tomographic reconstruction</title>. , 1995, , .		30
125	Image reconstruction in optical tomography using local basis functions. Journal of Electronic Imaging, 2003, 12, 583.	0.5	30
126	Reconstruction of optical properties of phantom and breast lesionin vivofrom paraxial scanning data. Physics in Medicine and Biology, 2005, 50, 2519-2542.	1.6	30

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127	Dynamic causal modelling on infant fNIRS data: A validation study on a simultaneously recorded fNIRS-fMRI dataset. NeuroImage, 2018, 175, 413-424.	2.1	30
128	<title>Performance of an iterative reconstruction algorithm for near-infrared absorption and scatter imaging</title>. , 1993, , .		29
129	Improvements to the quality of MRI cluster analysis. Magnetic Resonance Imaging, 1994, 12, 1191-1204.	1.0	29
130	Time-resolved optical mammography using a liquid coupled interface. Journal of Biomedical Optics, 2005, 10, 054011.	1.4	29
131	Fluorescence lifetime tomography of live cells expressing enhanced green fluorescent protein embedded in a scattering medium exhibiting background autofluorescence. Optics Letters, 2007, 32, 2034.	1.7	29
132	Multiple-view fluorescence optical tomography reconstruction using compression of experimental data. Optics Letters, 2011, 36, 1377.	1.7	28
133	Optical Tomography in weakly scattering media in the presence of highly scattering inclusions. Biomedical Optics Express, 2011, 2, 440.	1.5	27
134	An anatomically driven anisotropic diffusion filtering method for 3D SPECT reconstruction. Physics in Medicine and Biology, 2012, 57, 3793-3810.	1.6	27
135	Use of Split Bregman denoising for iterative reconstruction in fluorescence diffuse optical tomography. Journal of Biomedical Optics, 2013, 18, 076016.	1.4	27
136	Joint PET-MR respiratory motion models for clinical PET motion correction. Physics in Medicine and Biology, 2016, 61, 6515-6530.	1.6	27
137	Information theoretic regularization in diffuse optical tomography. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2009, 26, 1277.	0.8	26
138	A fast boundary element method for the scattering analysis of high-intensity focused ultrasound. Journal of the Acoustical Society of America, 2015, 138, 2726-2737.	0.5	26
139	Hybrid time-domain and continuous-wave diffuse optical tomography instrument with concurrent, clinical magnetic resonance imaging for breast cancer imaging. Journal of Biomedical Optics, 2019, 24, 1.	1.4	26
140	Computational calibration method for optical tomography. Applied Optics, 2005, 44, 1879.	2.1	25
141	Comparison of methods for optimal choice of the regularization parameter for linear electrical impedance tomography of brain function. Physiological Measurement, 2008, 29, 1319-1334.	1.2	25
142	Direct Parametric Reconstruction With Joint Motion Estimation/Correction for Dynamic Brain PET Data. IEEE Transactions on Medical Imaging, 2017, 36, 203-213.	5.4	25
143	Enhancing Compressed Sensing 4D Photoacoustic Tomography by Simultaneous Motion Estimation. SIAM Journal on Imaging Sciences, 2018, 11, 2224-2253.	1.3	25
144	Direct calculation with a finite-element method of the Laplace transform of the distribution of photon time of flight in tissue. Applied Optics, 1997, 36, 9042.	2.1	24

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145	Local diffusion regularization method for optical tomography reconstruction by using robust statistics. Optics Letters, 2005, 30, 2439.	1.7	24
146	3D shape based reconstruction of experimental data in Diffuse Optical Tomography. Optics Express, 2009, 17, 18940.	1.7	24
147	A virtual source pattern method for fluorescence tomography with structured light. Physics in Medicine and Biology, 2012, 57, 3811-3832.	1.6	24
148	On Learned Operator Correction in Inverse Problems. SIAM Journal on Imaging Sciences, 2021, 14, 92-127.	1.3	24
149	Application of a B-spline active surface technique to the measurement of cervical cord volume in multiple sclerosis from three-dimensional MR images. Journal of Magnetic Resonance Imaging, 2003, 18, 368-371.	1.9	23
150	Monitoring recovery after laser surgery of the breast with optical tomography: a case study. Applied Optics, 2005, 44, 1898.	2.1	23
151	Quantitative in vivo optical tomography of cancer progression & vasculature development in adult zebrafish. Oncotarget, 2016, 7, 43939-43948.	0.8	23
152	Use of measured scatter data for the attenuation correction of single photon emission tomography without transmission scanning. Medical Physics, 2013, 40, 082506.	1.6	22
153	Finite element approximation of the radiative transport equation in a medium with piece-wise constant refractive index. Journal of Computational Physics, 2015, 282, 345-359.	1.9	22
154	Sign determination methods for the respiratory signal in data-driven PET gating. Physics in Medicine and Biology, 2017, 62, 3204-3220.	1.6	22
155	Acoustic Wave Field Reconstruction From Compressed Measurements With Application in Photoacoustic Tomography. IEEE Transactions on Computational Imaging, 2017, 3, 710-721.	2.6	22
156	3D Shape Reconstruction in Optical Tomography Using Spherical Harmonics and BEM. Journal of Electromagnetic Waves and Applications, 2006, 20, 1827-1836.	1.0	21
157	Three-dimensional imaging of FÃ¶rster resonance energy transfer in heterogeneous turbid media by tomographic fluorescent lifetime imaging. Optics Letters, 2009, 34, 2772.	1.7	21
158	Quantitative photoacoustic tomography using illuminations from a single direction. Journal of Biomedical Optics, 2015, 20, 036015.	1.4	21
159	Heterodyne frequencyâ€domain multispectral diffuse optical tomography of breast cancer in the parallelâ€plane transmission geometry. Medical Physics, 2016, 43, 4383-4395.	1.6	21
160	Multi-Scale Learned Iterative Reconstruction. IEEE Transactions on Computational Imaging, 2020, 6, 843-856.	2.6	21
161	3D level set reconstruction of model and experimental data in Diffuse Optical Tomography. Optics Express, 2010, 18, 150.	1.7	20
162	Robust CT Synthesis for Radiotherapy Planning: Application to the Head and Neck Region. Lecture Notes in Computer Science, 2015, , 476-484.	1.0	20

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163	Linear and nonlinear reconstruction for optical tomography of phantoms with nonscattering regions. Applied Optics, 2005, 44, 3925.	2.1	19
164	A novel technique to incorporate structural prior information into multi-modal tomographic reconstruction. Inverse Problems, 2014, 30, 065004.	1.0	19
165	Multiple-view diffuse optical tomography system based on time-domain compressive measurements. Optics Letters, 2017, 42, 2822.	1.7	19
166	PET/MRI attenuation estimation in the lung: A review of past, present, and potential techniques. Medical Physics, 2020, 47, 790-811.	1.6	19
167	Validation of a finite-element solution for electrical impedance tomography in an anisotropic medium. Physiological Measurement, 2007, 28, S129-S140.	1.2	18
168	Combined reconstruction of fluorescent and optical parameters using time-resolved data. Applied Optics, 2009, 48, 28.	2.1	18
169	Compensation of optode sensitivity and position errors in diffuse optical tomography using the approximation error approach. Biomedical Optics Express, 2013, 4, 2015.	1.5	18
170	Material Decomposition in Spectral CT Using Deep Learning: A Sim2Real Transfer Approach. IEEE Access, 2021, 9, 25632-25647.	2.6	18
171	Edge preserving bowsher prior with nonlocal weighting for 3D spect reconstruction. , 2011, , .		17
172	Inverse Born series for the Calderon problem. Inverse Problems, 2012, 28, 035003.	1.0	17
173	Non-invasive kinetic modelling of PET tracers with radiometabolites using a constrained simultaneous estimation method: evaluation with 11C-SB201745. EJNMMI Research, 2018, 8, 58.	1.1	17
174	A Model-Based Iterative Learning Approach for Diffuse Optical Tomography. IEEE Transactions on Medical Imaging, 2022, 41, 1289-1299.	5.4	17
175	Compensation of modeling errors due to unknown domain boundary in diffuse optical tomography. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2014, 31, 1847.	0.8	16
176	Time-Domain Functional Diffuse Optical Tomography System Based on Fiber-Free Silicon Photomultipliers. Applied Sciences (Switzerland), 2017, 7, 1235.	1.3	16
177	Clinical Impact of Respiratory Motion Correction in Simultaneous PET/MR, Using a Joint PET/MR Predictive Motion Model. Journal of Nuclear Medicine, 2018, 59, 1467-1473.	2.8	16
178	Three dimensional photoacoustic tomography in Bayesian framework. Journal of the Acoustical Society of America, 2018, 144, 2061-2071.	0.5	16
179	Realâ€time deep artifact suppression using recurrent Uâ€Nets for lowâ€latency cardiac MRI. Magnetic Resonance in Medicine, 2021, 86, 1904-1916.	1.9	16
180	Multi-spectral probabilistic diffusion using bayesian classification. Lecture Notes in Computer Science, 1997, , 224-235.	1.0	16

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181	Single-pixel camera photoacoustic tomography. Journal of Biomedical Optics, 2019, 24, 1.	1.4	16
182	Approximate marginalization of unknown scattering in quantitative photoacoustic tomography. Inverse Problems and Imaging, 2014, 8, 811-829.	0.6	16
183	Incorporating structural prior information and sparsity into EIT using parallel level sets. Inverse Problems and Imaging, 2019, 13, 285-307.	0.6	16
184	Approximation error method can reduce artifacts due to scalp blood flow in optical brain activation imaging. Journal of Biomedical Optics, 2012, 17, 0960121.	1.4	15
185	Physiological System Identification with the Kalman Filter in Diffuse Optical Tomography. Lecture Notes in Computer Science, 2005, 8, 649-656.	1.0	15
186	Influence of absorption and scattering on the quantification of fluorescence diffuse optical tomography using normalized data. Journal of Biomedical Optics, 2012, 17, 036013.	1.4	14
187	Quantitative fluorescence diffuse optical tomography in the presence of heterogeneities. Optics Letters, 2013, 38, 1903.	1.7	14
188	Wavelet-based data and solution compression for efficient image reconstruction in fluorescence diffuse optical tomography. Journal of Biomedical Optics, 2013, 18, 086008.	1.4	14
189	Maximum-likelihood joint image reconstruction and motion estimation with misaligned attenuation in TOF-PET/CT. Physics in Medicine and Biology, 2016, 61, L11-L19.	1.6	14
190	Fast Quasi-Newton Algorithms for Penalized Reconstruction in Emission Tomography and Further Improvements via Preconditioning. IEEE Transactions on Medical Imaging, 2018, 37, 1000-1010.	5.4	14
191	Preconditioning of complex symmetric linear systems with applications in optical tomography. Applied Numerical Mathematics, 2013, 74, 35-48.	1.2	13
192	<title>Near-infrared imaging: photon measurement density functions</title>. , 1995, 2389, 366.		12
193	Light propagation in multilayered scattering media beyond the diffusive regime. Applied Optics, 2007, 46, 2528.	2.1	12
194	Parameter and structure reconstruction in optical tomography. Journal of Physics: Conference Series, 2008, 135, 012001.	0.3	12
195	Combination of Boundary Element Method and Finite Element Method in Diffuse Optical Tomography. IEEE Transactions on Biomedical Engineering, 2010, 57, 2737-2745.	2.5	12
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