Martin Schweiger

List of Publications by Year
in descending order

35 papers	2,791 citations	279798 23 h-index	454955 30 g-index
36 all docs	36 docs citations	36 times ranked	1409 citing authors

#	Article	IF	Citations
1	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.	2.6	26
2	Basis mapping methods for forward and inverse problems. International Journal for Numerical Methods in Engineering, 2017, 109, 3-28.	2.8	5
3	The Toast++ software suite for forward and inverse modeling in optical tomography. Journal of Biomedical Optics, 2014, 19, 040801.	2.6	202
4	Influence of absorption and scattering on the quantification of fluorescence diffuse optical tomography using normalized data. Journal of Biomedical Optics, 2012, 17, 036013.	2.6	14
5	Variable order spherical harmonic expansion scheme for the radiative transport equation using finite elements. Journal of Computational Physics, 2011, 230, 7364-7383.	3.8	39
6	GPU-Accelerated Finite Element Method for Modelling Light Transport in Diffuse Optical Tomography. International Journal of Biomedical Imaging, 2011, 2011, 1-11.	3.9	15
7	Differentiation of benign and malignant breast tumors by in-vivo three-dimensional parallel-plate diffuse optical tomography. Journal of Biomedical Optics, 2009, 14, 024020.	2.6	189
8	A matrix-free algorithm for multiple wavelength fluorescence tomography. Optics Express, 2009, 17, 3042.	3.4	40
9	A Finite Element Method for the Even-Parity Radiative Transfer Equation Using the P N Approximation. , 2009, , 39-48.		1
10	Multispectral Fluorescence Enhanced Diffuse Optical Tomography Evaluated with Weight Matrix Free Algorithm. , 2008, , .		0
11	Three-dimensional in vivo fluorescence diffuse optical tomography of breast cancer in humans. Optics Express, 2007, 15, 6696.	3.4	357
12	Image reconstruction in optical tomography in the presence of coupling errors. Applied Optics, 2007, 46, 2743.	2.1	46
13	Diffuse photon propagation in multilayered geometries. Physics in Medicine and Biology, 2006, 51, 497-516.	3.0	56
14	White light diffuse optical tomography and validation of optimum wavelengths for CW DOT. , 2006, , .		0
15	Instrumentation and calibration methods for the multichannel measurement of phase and amplitude in optical tomography. Review of Scientific Instruments, 2005, 76, 044302.	1.3	55
16	Diffuse optical tomography with spectral constraints and wavelength optimization. Applied Optics, 2005, 44, 2082.	2.1	192
17	Gauss–Newton method for image reconstruction in diffuse optical tomography. Physics in Medicine and Biology, 2005, 50, 2365-2386.	3.0	189
18	An Inverse Problem Approach to the Estimation of Volume Change. Lecture Notes in Computer Science, 2005, 8, 616-623.	1.3	4

#	Article	IF	Citations
19	Optimum wavelengths in continuous-wave multi-spectral diffuse optical tomography. , 2004, , .		0
20	Uniqueness and wavelength optimization in continuous-wave multispectral diffuse optical tomography. Optics Letters, 2003, 28, 2339.	3.3	168
21	Image reconstruction in optical tomography using local basis functions. Journal of Electronic Imaging, 2003, 12, 583.	0.9	30
22	A method for three-dimensional time-resolved optical tomography. International Journal of Imaging Systems and Technology, 2000, 11, 2-11.	4.1	77
23	Topographic Distribution of Photon Measurement Density Functions on the Brain Surface by Hybrid Radiosity-Diffusion Method. Optical Review, 2000, 7, 426-431.	2.0	7
24	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.	1.5	82
25	Multiple-slice imaging of a tissue-equivalent phantom by use of time-resolved optical tomography. Applied Optics, 2000, 39, 3380.	2.1	41
26	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.	3.0	153
27	A method for three€dimensional time€resolved optical tomography. International Journal of Imaging Systems and Technology, 2000, 11, 2-11.	4.1	4
28	Application of temporal filters to time resolved data in optical tomography. Physics in Medicine and Biology, 1999, 44, 1699-1717.	3.0	105
29	Simultaneous reconstruction of absorption and scattering images by multichannel measurement of purely temporal data. Optics Letters, 1999, 24, 534.	3.3	66
30	Comparison of two- and three-dimensional reconstruction methods in optical tomography. Applied Optics, 1998, 37, 7419.	2.1	62
31	A gradient-based optimisation scheme for optical tomography. Optics Express, 1998, 2, 213.	3.4	212
32	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
33	An investigation of light transport through scattering bodies with non-scattering regions. Physics in Medicine and Biology, 1996, 41, 767-783.	3.0	208
34	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
35	<title>Iterative reconstruction of near-infrared absorption images</title>. , 1992, 1767, 372.		48