Amir Rosenthal

List of Publications by Year
in descending order

69 papers	2,543 citations	236925 25 h-index	197818 49 g-index
70 all docs	70 docs citations	70 times ranked	1708 citing authors

#	Article	IF	Citations
1	Burst-mode pulse interferometry for enabling low-noise multi-channel optical detection of ultrasound. Optics Express, 2022, 30, 8959.	3.4	3
2	Silicon-photonics acoustic detector for optoacoustic micro-tomography. Nature Communications, 2022, 13, 1488.	12.8	27
3	Single-pixel imaging of dynamic objects using multi-frame motion estimation. Scientific Reports, 2021, 11, 7712.	3.3	9
4	Single pixel imaging at megahertz switching rates via cyclic Hadamard masks. Nature Communications, 2021, 12, 4516.	12.8	50
5	GrÃ¼neisen-relaxation photoacoustic microscopy at 1.7â€‰â€‰Âµm and its application in lipid imaging. Optics Letters, 2020, 45, 3268.	3.3	11
6	Increased SNR in acousto-optic imaging via coded ultrasound transmission. Optics Letters, 2020, 45, 2858.	3.3	2
7	Ultrasound Detection Arrays via Coded Hadamard Apertures. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2020, 67, 2095-2102.	3.0	9
8	Enhanced Sensitivity of Silicon-Photonics-Based Ultrasound Detection via BCB Coating. IEEE Photonics Journal, 2019, 11, 1-11.	2.0	7
9	The Impulse Response of Negatively Focused Spherical Ultrasound Detectors and Its Effect on Tomographic Optoacoustic Reconstruction. IEEE Transactions on Medical Imaging, 2019, 38, 2326-2337.	8.9	5
10	Pulse Interferometry for Ultrasound Detection. , 2019, , .		0
11	Optoacoustic model-based inversion using anisotropic adaptive total-variation regularization. Photoacoustics, 2019, 16, 100142.	7.8	10
12	Simultaneous multi-channel ultrasound detection via phase modulated pulse interferometry. Optics Express, 2019, 27, 28844.	3.4	15
13	Noise reduction in resonator-based ultrasound sensors by using a CW laser and phase detection. Optics Letters, 2019, 44, 2677.	3.3	24
14	Ultrasound Detection Using Acoustic Apertures. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2018, 65, 120-126.	3.0	6
15	Ultrasound detection via low-noise pulse interferometry using a free-space Fabry-PÃ©rot. Optics Express, 2018, 26, 22405.	3.4	10
16	Looking at sound: optoacoustics with all-optical ultrasound detection. Light: Science and Applications, 2018, 7, 53.	16.6	230
17	Algebraic determination of back-projection operators for optoacoustic tomography. Biomedical Optics Express, 2018, 9, 5173.	2.9	7
18	Passive-demodulation pulse interferometry for ultrasound detection with a high dynamic range. Optics Letters, 2018, 43, 1039.	3.3	18

#	Article	IF	Citations
19	Quantitative intravascular biological fluorescence-ultrasound imaging of coronary and peripheral arteries in vivo. European Heart Journal Cardiovascular Imaging, 2017, 18, 1253-1261.	1.2	26
20	Analysis of Negatively Focused Ultrasound Detectors in Optoacoustic Tomography. IEEE Transactions on Medical Imaging, 2017, 36, 301-309.	8.9	10
21	Fiber interferometer for hybrid optical and optoacoustic intravital microscopy. Optica, 2017, 4, 1180.	9.3	40
22	Modeling the sensitivity dependence of silicon-photonics-based ultrasound detectors. Optics Letters, 2017, 42, 5262.	3.3	12
23	All-optical optoacoustic microscope based on wideband pulse interferometry. Optics Letters, 2016, 41, 1953.	3.3	38
24	Magnetoacoustic Sensing of Magnetic Nanoparticles. Physical Review Letters, 2016, 116, 108103.	7.8	26
25	High-Throughput Sparsity-Based Inversion Scheme for Optoacoustic Tomography. IEEE Transactions on Medical Imaging, 2016, 35, 674-684.	8.9	12
26	Optoacoustic image reconstruction and system analysis for finite-aperture detectors under the wavelet-packet framework. Journal of Biomedical Optics, 2016, 21, 016002.	2.6	11
27	Sparsityâ€based acoustic inversion in crossâ€sectional multiscale optoacoustic imaging. Medical Physics, 2015, 42, 5444-5452.	3.0	28
28	Compressed system models in multispectral optoacoustic tomography. , 2015, , .		0
29	Acoustic Inversion in Optoacoustic Tomography: A Review. Current Medical Imaging, 2014, 9, 318-336.	0.8	176
30	Characterization of the spatio-temporal response of optical fiber sensors to incident spherical waves. Journal of the Acoustical Society of America, 2014, 135, 1853-1862.	1.1	22
31	MODEL-BASED IMAGE RECONSTRUCTION IN OPTOACOUSTIC TOMOGRAPHY. Series in Computer Vision, 2014, , 133-150.	0.1	0
32	Characterization of the spatio-temporal response of optical fiber sensors to incident spherical waves. , 2014, , .		3
33	Sensitive interferometric detection of ultrasound for minimally invasive clinical imaging applications. Laser and Photonics Reviews, 2014, 8, 450-457.	8.7	71
34	Spatiospectral denoising framework for multispectral optoacoustic imaging based on sparse signal representation. Medical Physics, 2014, 41, 113301.	3.0	15
35	Embedded ultrasound sensor in a silicon-on-insulator photonic platform. Applied Physics Letters, 2014, 104, 021116.	3.3	40
36	Multiscale Multispectral Optoacoustic Tomography by a Stationary Wavelet Transform Prior to Unmixing. IEEE Transactions on Medical Imaging, 2014, 33, 1194-1202.	8.9	19

#	Article	IF	Citations
37	Wideband Optical Detector of Ultrasound for Medical Imaging Applications. Journal of Visualized Experiments, 2014, , .	0.3	1
38	Optoacoustic determination of spatio- temporal responses of ultrasound sensors. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2013, 60, 1234-1244.	3.0	31
39	Modeling the shape of cylindrically focused transducers in three-dimensional optoacoustic tomography. Journal of Biomedical Optics, 2013, 18, 076014.	2.6	65
40	Intravascular multispectral optoacoustic tomography of atherosclerosis: prospects and challenges. Imaging in Medicine, 2012, 4, 299-310.	0.0	19
41	Wideband optical sensing using pulse interferometry. Optics Express, 2012, 20, 19016.	3.4	50
42	Spatial characterization of the response of a silica optical fiber to wideband ultrasound. Optics Letters, 2012, 37, 3174.	3.3	26
43	Efficient Framework for Model-Based Tomographic Image Reconstruction Using Wavelet Packets. IEEE Transactions on Medical Imaging, 2012, 31, 1346-1357.	8.9	43
44	Wideband Fiber-Interferometer Stabilization With Variable Phase. IEEE Photonics Technology Letters, 2012, 24, 1499-1501.	2.5	18
45	Model-based optoacoustic imaging using focused detector scanning. Optics Letters, 2012, 37, 4080.	3.3	39
46	Two-Dimensional Intravascular Near-Infrared Fluorescence Molecular Imaging of Inflammation in Atherosclerosis and Stent-Induced Vascular Injury. Journal of the American College of Cardiology, 2011, 57, 2516-2526.	2.8	152
47	Optoacoustic methods for frequency calibration of ultrasonic sensors. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2011, 58, 316-326.	3.0	43
48	High-sensitivity compact ultrasonic detector based on a pi-phase-shifted fiber Bragg grating. Optics Letters, 2011, 36, 1833.	3.3	230
49	Multispectral optoacoustic tomography by means of normalized spectral ratio. Optics Letters, 2011, 36, 4176.	3.3	12
50	Interpolated model-matrix optoacoustic tomography of the mouse brain. Applied Physics Letters, 2011, 98, 163701.	3.3	17
51	Modelâ€based optoacoustic inversion with arbitraryâ€shape detectors. Medical Physics, 2011, 38, 4285-4295.	3.0	127
52	Modelâ€based optoacoustic inversions with incomplete projection data. Medical Physics, 2011, 38, 1694-1704.	3.0	104
53	Fast Semi-Analytical Model-Based Acoustic Inversion for Quantitative Optoacoustic Tomography. IEEE Transactions on Medical Imaging, 2010, 29, 1275-1285.	8.9	255
54	Near-infrared fluorescence catheter system for two-dimensional intravascular imaging in vivo. Optics Express, 2010, 18, 11372.	3.4	24

#	Article	IF	Citations
55	Multirate Synchronous Sampling of Sparse Multiband Signals. IEEE Transactions on Signal Processing, 2010, 58, 1144-1156.	5.3	38
56	Quantitative Optoacoustic Signal Extraction Using Sparse Signal Representation. IEEE Transactions on Medical Imaging, 2009, 28, 1997-2006.	8.9	77
57	Optical Under-Sampling and Reconstruction of Several Bandwidth-Limited Signals. Journal of Lightwave Technology, 2009, 27, 1027-1033.	4.6	14
58	Performance of iterative optoacoustic tomography with experimental data. Applied Physics Letters, 2009, 95, .	3.3	61
59	Design of Planar Waveguides With Prescribed Mode-Profile Using Inverse Scattering Theory. IEEE Journal of Quantum Electronics, 2009, 45, 1133-1141.	1.9	3
60	Efficient method for launching in-gap solitons in fiber Bragg gratings using a two-segment apodization profile. Optics Letters, 2008, 33, 678.	3.3	2
61	Multirate asynchronous sampling of sparse multiband signals. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2008, 25, 2320.	1.5	18
62	Extracting the structure of highly reflecting fiber Bragg gratings by measuring both the transmission and the reflection spectra. Optics Letters, 2007, 32, 457.	3.3	7
63	Experimental reconstruction of a highly reflecting fiber Bragg grating by using spectral regularization and inverse scattering. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2007, 24, 3284.	1.5	4
64	Analysis and design of nonlinear fiber Bragg gratings and their application for optical compression of reflected pulses. Optics Letters, 2006, 31, 1334.	3.3	31
65	Reconstruction of long-period fiber gratings from their core-to-core transmission function. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2006, 23, 57.	1.5	3
66	Bragg-soliton formation and pulse compression in a one-dimensional periodic structure. Physical Review E, 2006, 74, 066611.	2.1	8
67	Reconstruction of a fiber Bragg grating from noisy reflection data. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2005, 22, 84.	1.5	21
68	Experimental reconstruction of a long-period grating from its core-to-core transmission spectrum. Optics Letters, 2005, 30, 3272.	3.3	2
69	Inverse scattering algorithm for reconstructing lossy fiber Bragg gratings. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2004, 21, 552.	1.5	6