

Mohammad R N Avanaki

List of Publications by Year in descending order

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Version: 2024-02-01

98
papers

2,817
citations

159585

30
h-index

189892

50
g-index

98
all docs

98
docs citations

98
times ranked

2022
citing authors

#	ARTICLE	IF	CITATIONS
1	Transfontanelle photoacoustic imaging: ultrasound transducer selection analysis. <i>Biomedical Optics Express</i> , 2022, 13, 676.	2.9	20
2	High-resolution speed of sound estimation from ultrasound waves using extended full wave inversion. , 2022, , .		1
3	Challenges of transcranial photoacoustic imaging for human at 2.25 MHz: an ex vivo study. , 2022, , .		1
4	A fast ultra-wide laser-scanning photoacoustic microscopy: system characterization and in-vivo study. , 2022, , .		0
5	Epidermal thickness measurement on skin OCT using time-efficient deep learning with graph search. , 2022, , .		3
6	Cerebral blood oxygenation measurement in sheep brain In-vivo using transfontanelle photoacoustic spectroscopy. , 2022, , .		1
7	Informative OCT radiomic features towards improved melanoma detection. , 2022, , .		0
8	Transfontanelle thermoacoustic imaging characterization: simulation study. , 2022, , .		0
9	2D-FC-ADMM reconstruction algorithm for quantitative optoacoustic tomography in a highly scattering medium: simulation study. , 2022, , .		3
10	Deep learning-boosted photoacoustic microscopy with an extremely low energy laser. , 2022, , .		0
11	Novel image quality metrics for evaluation of optical coherence tomography images of skin. , 2022, , .		1
12	Compressed sensing image reconstruction algorithm for linear array transducer based on alternating directions of directional multipliers (ADMM). , 2022, , .		0
13	<scp>Highâ€fidelity</scp> compression for <scp>highâ€throughput</scp> photoacoustic microscopy systems. <i>Journal of Biophotonics</i> , 2022, 15, e202100350.	2.3	9
14	Randomized <scp>multiâ€angle</scp> illumination for improved linear array photoacoustic computed tomography in brain. <i>Journal of Biophotonics</i> , 2022, 15, e202200016.	2.3	12
15	Couplants in Acoustic Biosensing Systems. <i>Chemosensors</i> , 2022, 10, 181.	3.6	13
16	Development of fast photoacoustic microscopy system for small animal brain imaging. , 2021, , .		2
17	Direct measurement of neuronal ensemble activity using photoacoustic imaging in the stimulated Fos-LacZ transgenic rat brain: A proof-of-principle study. <i>Photoacoustics</i> , 2021, 24, 100297.	7.8	16
18	Technical considerations in the Verasonics research ultrasound platform for developing a photoacoustic imaging system. <i>Biomedical Optics Express</i> , 2021, 12, 1050.	2.9	46

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19	Wavelength and pulse energy optimization for detecting hypoxia in photoacoustic imaging of the neonatal brain: a simulation study. <i>Biomedical Optics Express</i> , 2021, 12, 7458.	2.9	21
20	Monitoring the topical delivery of ultrasmall gold nanoparticles using optical coherence tomography. <i>Skin Research and Technology</i> , 2020, 26, 263-268.	1.6	12
21	Hidradenitis suppurativa: Current understanding, diagnostic and surgical challenges, and developments in ultrasound application. <i>Skin Research and Technology</i> , 2020, 26, 11-19.	1.6	17
22	The efficacy and morphological effects of hydrogen peroxide 40% topical solution for the treatment of seborrheic keratoses, evaluated by dynamic optical coherence tomography. <i>Skin Research and Technology</i> , 2020, 26, 142-145.	1.6	4
23	Review of imaging technologies used in Hidradenitis Suppurativa. <i>Skin Research and Technology</i> , 2020, 26, 3-10.	1.6	12
24	Deep learning protocol for improved photoacoustic brain imaging. <i>Journal of Biophotonics</i> , 2020, 13, e202000212.	2.3	45
25	Overview of Ultrasound Detection Technologies for Photoacoustic Imaging. <i>Micromachines</i> , 2020, 11, 692.	2.9	72
26	Investigation of the Effect of the Skull in Transcranial Photoacoustic Imaging: A Preliminary Ex Vivo Study. <i>Sensors</i> , 2020, 20, 4189.	3.8	28
27	Melanoma Biomarkers and Their Potential Application for In Vivo Diagnostic Imaging Modalities. <i>International Journal of Molecular Sciences</i> , 2020, 21, 9583.	4.1	31
28	Contrast-enhanced optical coherence tomography for melanoma detection: An in vitro study. <i>Journal of Biophotonics</i> , 2020, 13, e201960097.	2.3	11
29	Improving vascular imaging with co-planar mutually guided photoacoustic and diffuse optical tomography: a simulation study. <i>Biomedical Optics Express</i> , 2020, 11, 4333.	2.9	15
30	Skull acoustic aberration correction in photoacoustic microscopy using a vector space similarity model: a proof-of-concept simulation study. <i>Biomedical Optics Express</i> , 2020, 11, 5542.	2.9	26
31	Ultrasonic Echolocation Device for Assisting the Visually Impaired. <i>Current Medical Imaging</i> , 2020, 16, 601-610.	0.8	0
32	A comparative study of optimization algorithms for wavefront shaping. <i>Journal of Innovative Optical Health Sciences</i> , 2019, 12, .	1.0	26
33	Development of a Punch-O-Meter for Sport Karate Training. <i>Electronics (Switzerland)</i> , 2019, 8, 782.	3.1	8
34	Photoacoustic/Ultrasound/Optical Coherence Tomography Evaluation of Melanoma Lesion and Healthy Skin in a Swine Model. <i>Sensors</i> , 2019, 19, 2815.	3.8	50
35	Development of a Stationary 3D Photoacoustic Imaging System Using Sparse Single-Element Transducers: Phantom Study. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 4505.	2.5	19
36	Review of cost reduction methods in photoacoustic computed tomography. <i>Photoacoustics</i> , 2019, 15, 100137.	7.8	72

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37	Skullâ€™s Photoacoustic Attenuation and Dispersion Modeling with Deterministic Ray-Tracing: Towards Real-Time Aberration Correction. <i>Sensors</i> , 2019, 19, 345.	3.8	30
38	An Application of Simulated Annealing in Compensation of Nonlinearity of Scanners. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 1655.	2.5	7
39	Development of Low-Cost Fast Photoacoustic Computed Tomography: System Characterization and Phantom Study. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 374.	2.5	46
40	Optical Radiomic Signatures Derived from Optical Coherence Tomography Images Improve Identification of Melanoma. <i>Cancer Research</i> , 2019, 79, 2021-2030.	0.9	88
41	Optical coherence tomography imaging of melanoma skin cancer. <i>Lasers in Medical Science</i> , 2019, 34, 411-420.	2.1	64
42	Vibration analysis of healthy skin: toward a noninvasive skin diagnosis methodology. <i>Journal of Biomedical Optics</i> , 2019, 24, 1.	2.6	37
43	<scp>OCT</scp> image atlas of healthy skin on sunâ€™exposed areas. <i>Skin Research and Technology</i> , 2018, 24, 570-586.	1.6	25
44	Neonatal brain resting-state functional connectivity imaging modalities. <i>Photoacoustics</i> , 2018, 10, 1-19.	7.8	56
45	Swept-Source Optical Coherence Tomographyâ€™Supervised Biopsy. <i>Dermatologic Surgery</i> , 2018, 44, 768-775.	0.8	14
46	Low Temperature-Mediated Enhancement of Photoacoustic Imaging Depth. <i>Scientific Reports</i> , 2018, 8, 4873.	3.3	45
47	Double-Stage Delay Multiply and Sum Beamforming Algorithm: Application to Linear-Array Photoacoustic Imaging. <i>IEEE Transactions on Biomedical Engineering</i> , 2018, 65, 31-42.	4.2	147
48	An overview of methods to mitigate artifacts in optical coherence tomography imaging of the skin. <i>Skin Research and Technology</i> , 2018, 24, 265-273.	1.6	20
49	Photoacoustic Signal Enhancement: Towards Utilization of Low Energy Laser Diodes in Real-Time Photoacoustic Imaging. <i>Sensors</i> , 2018, 18, 3498.	3.8	53
50	Intravascular imaging in neuroendovascular surgery: a brief review. <i>Neurological Research</i> , 2018, 40, 892-899.	1.3	1
51	A Novel Dictionary-Based Image Reconstruction for Photoacoustic Computed Tomography. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 1570.	2.5	57
52	Granular Cell Tumor Imaging Using Optical Coherence Tomography. <i>Biomedical Engineering and Computational Biology</i> , 2018, 9, 117959721879025.	2.0	11
53	Development and Optimization of a Fluorescent Imaging System to Detect Amyloid-Î² Proteins: Phantom Study. <i>Biomedical Engineering and Computational Biology</i> , 2018, 9, 117959721878108.	2.0	3
54	Simulated annealing optimization in wavefront shaping controlled transmission. <i>Applied Optics</i> , 2018, 57, 6233.	1.8	35

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55	Learnable despeckling framework for optical coherence tomography images. Journal of Biomedical Optics, 2018, 23, 1.	2.6	33
56	Linear-array photoacoustic imaging using minimum variance-based delay multiply and sum adaptive beamforming algorithm. Journal of Biomedical Optics, 2018, 23, 1.	2.6	90
57	Refractive index correction in optical coherence tomography images of multilayer tissues. Journal of Biomedical Optics, 2018, 23, 1.	2.6	19
58	Comparative assessment of five algorithms to control an SLM for focusing coherent light through scattering media. , 2018, , .		3
59	Model-based photoacoustic image reconstruction using compressed sensing and smoothed L0 norm. , 2018, , .		5
60	Optimization of light illumination for photoacoustic computed tomography of human infant brain. , 2018, , .		3
61	Cluster-based filtering framework for speckle reduction in OCT images. Biomedical Optics Express, 2018, 9, 6359.	2.9	26
62	A new illumination scheme for photoacoustic computed tomography. , 2018, , .		0
63	Three-dimensional photoacoustic tomography using delay multiply and sum beamforming algorithm. , 2018, , .		1
64	<i>En-face</i> time-domain optical coherence tomography with dynamic focus for high-resolution imaging. Journal of Biomedical Optics, 2017, 22, 056009.	2.6	20
65	A cost-effective functional connectivity photoacoustic tomography (fcPAT) of the mouse brain. , 2017, , .		1
66	Noise reduction in OCT skin images. Proceedings of SPIE, 2017, , .	0.8	2
67	An intelligent despeckling method for swept source optical coherence tomography images of skin. Proceedings of SPIE, 2017, , .	0.8	1
68	A spatially-variant deconvolution method based on total variation for optical coherence tomography images. , 2017, , .		2
69	A numerical analysis of a semi-dry coupling configuration in photoacoustic computed tomography for infant brain imaging. Photoacoustics, 2017, 7, 27-35.	7.8	30
70	Development of low-cost photoacoustic imaging systems using very low-energy pulsed laser diodes. Journal of Biomedical Optics, 2017, 22, 075001.	2.6	77
71	Universal in vivo Textural Model for Human Skin based on Optical Coherence Tomograms. Scientific Reports, 2017, 7, 17912.	3.3	63
72	Optical Coherence Tomography Technology and Quality Improvement Methods for Optical Coherence Tomography Images of Skin: A Short Review. Biomedical Engineering and Computational Biology, 2017, 8, 117959721771347.	2.0	30

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73	Advances in Computational Imaging: Theory, Algorithms, and Systems. Mathematical Problems in Engineering, 2017, 2017, 1-2.	1.1	0
74	High-resolution wavelet-fractal compressed optical coherence tomography images. Applied Optics, 2017, 56, 1119.	2.1	15
75	Semi-automated localization of dermal epidermal junction in optical coherence tomography images of skin. Applied Optics, 2017, 56, 3116.	2.1	36
76	Optimization of excitation of fiber Fabry-Pérot tunable filters used in swept lasers using a phase-correction method. Applied Optics, 2017, 56, 3378.	2.1	12
77	A Lossless hybrid wavelet-fractal compression for welding radiographic images. Journal of X-Ray Science and Technology, 2016, 24, 107-118.	1.0	3
78	The connectivity domain: Analyzing resting state fMRI data using feature-based data-driven and model-based methods. NeuroImage, 2016, 134, 494-507.	4.2	69
79	Towards low cost photoacoustic Microscopy system for evaluation of skin health. Proceedings of SPIE, 2016, , .	0.8	11
80	Towards ultrahigh resting-state functional connectivity in the mouse brain using photoacoustic microscopy. , 2016, , .		4
81	Resting-State Functional Connectivity Measurement in the Mouse Brain using a Low Cost Photoacoustic Computed Tomography. , 2016, , .		11
82	An Intelligent Speckle Reduction Algorithm for Optical Coherence Tomography Images. , 2016, , .		6
83	Fast algorithm for blind optimisation of optical systems; statistics and methodology. International Journal of Electronics, 2014, 101, 1179-1189.	1.4	5
84	High-resolution photoacoustic tomography of resting-state functional connectivity in the mouse brain. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 21-26.	7.1	276
85	Skin layer detection of optical coherence tomography images. Optik, 2013, 124, 5665-5668.	2.9	23
86	Spatial Compounding Algorithm for Speckle Reduction of Dynamic Focus OCT Images. IEEE Photonics Technology Letters, 2013, 25, 1439-1442.	2.5	60
87	Noninvasive photoacoustic computed tomography of mouse brain metabolism in vivo. NeuroImage, 2013, 64, 257-266.	4.2	199
88	Algorithm for Excitation Optimization of Fabry-Pérot Filters Used in Swept Sources. IEEE Photonics Technology Letters, 2013, 25, 472-475.	2.5	16
89	Speckle reduction using an artificial neural network algorithm. Applied Optics, 2013, 52, 5050.	1.8	40
90	Two applications of solid phantoms in performance assessment of optical coherence tomography systems. Applied Optics, 2013, 52, 7054.	1.8	30

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91	Wide-field two-dimensional multifocal optical-resolution photoacoustic-computed microscopy. Optics Letters, 2013, 38, 5236.	3.3	50
92	Quantitative evaluation of scattering in optical coherence tomography skin images using the extended Huygens-Fresnel theorem. Applied Optics, 2013, 52, 1574.	1.8	37
93	Investigation of basal cell carcinoma using dynamic focus optical coherence tomography. Applied Optics, 2013, 52, 2116.	1.8	38
94	De-Noising Speckled Optical Coherence Tomography Images Using an Algorithm Based on Artificial Neural Network. Journal of Neuroscience and Neuroengineering, 2013, 2, 347-352.	0.2	5
95	Sensor-less aberration correction in optical imaging systems using blind optimization. , 2012, , .		2
96	OCT skin image enhancement through attenuation compensation. Applied Optics, 2012, 51, 4927.	1.8	84
97	Blind optimization for aberration correction in confocal imaging system. , 2010, , .		1
98	Investigation of computer-based skin cancer detection using optical coherence tomography. Journal of Modern Optics, 2009, 56, 1536-1544.	1.3	42