Qianqian Fang

List of Publications by Year
in descending order

51 papers	4,087 citations	236612 25 h-index	233125 45 g-index
63 all docs	63 docs citations	63 times ranked	4135 citing authors

#	Article	IF	Citations
1	Monte Carlo Simulation of Photon Migration in 3D Turbid Media Accelerated by Graphics Processing Units. Optics Express, 2009, 17, 20178.	1.7	714
2	Lead-DBS v2: Towards a comprehensive pipeline for deep brain stimulation imaging. NeuroImage, 2019, 184, 293-316.	2.1	527
3	Connectivity Predicts deep brain stimulation outcome in <scp>P</scp>arkinson disease. Annals of Neurology, 2017, 82, 67-78.	2.8	514
4	Mesh-based Monte Carlo method using fast ray-tracing in PlÃ¼cker coordinates. Biomedical Optics Express, 2010, 1, 165.	1.5	326
5	Tetrahedral mesh generation from volumetric binary and grayscale images. , 2009, , .		233
6	Quantifying the Microvascular Origin of BOLD-fMRI from First Principles with Two-Photon Microscopy and an Oxygen-Sensitive Nanoprobe. Journal of Neuroscience, 2015, 35, 3663-3675.	1.7	196
7	Combined Optical and X-ray Tomosynthesis Breast Imaging. Radiology, 2011, 258, 89-97.	3.6	192
8	Scalable and massively parallel Monte Carlo photon transport simulations for heterogeneous computing platforms. Journal of Biomedical Optics, 2018, 23, 1.	1.4	134
9	Combined optical imaging and mammography of the healthy breast: Optical contrast derived from breast structure and compression. IEEE Transactions on Medical Imaging, 2009, 28, 30-42.	5.4	131
10	Validating atlas-guided DOT: A comparison of diffuse optical tomography informed by atlas and subject-specific anatomies. NeuroImage, 2012, 62, 1999-2006.	2.1	81
11	Accelerating mesh-based Monte Carlo method on modern CPU architectures. Biomedical Optics Express, 2012, 3, 3223.	1.5	76
12	Improving model-based functional near-infrared spectroscopy analysis using mesh-based anatomical and light-transport models. Neurophotonics, 2020, 7, 1.	1.7	65
13	Mesh-based Monte Carlo method in time-domain widefield fluorescence molecular tomography. Journal of Biomedical Optics, 2012, 17, 1.	1.4	60
14	Viable Three-Dimensional Medical Microwave Tomography: Theory and Numerical Experiments. IEEE Transactions on Antennas and Propagation, 2010, 58, 449-458.	3.1	57
15	Singular Value Analysis of the Jacobian Matrix in Microwave Image Reconstruction. IEEE Transactions on Antennas and Propagation, 2006, 54, 2371-2380.	3.1	56
16	Generalized mesh-based Monte Carlo for wide-field illumination and detection via mesh retessellation. Biomedical Optics Express, 2016, 7, 171.	1.5	53
17	Comparison of a layered slab and an atlas head model for Monte Carlo fitting of time-domain near-infrared spectroscopy data of the adult head. Journal of Biomedical Optics, 2014, 19, 016010.	1.4	52
18	Direct approach to compute Jacobians for diffuse optical tomography using perturbation Monte Carlo-based photon â€œreplayâ€. Biomedical Optics Express, 2018, 9, 4588.	1.5	52

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19	Selective photobiomodulation for emotion regulation: model-based dosimetry study. Neurophotonics, 2019, 6, 1.	1.7	49
20	Oxygen advection and diffusion in a three- dimensional vascular anatomical network. Optics Express, 2008, 16, 17530-41.	1.7	45
21	Multimodal breast cancer imaging using coregistered dynamic diffuse optical tomography and digital breast tomosynthesis. Journal of Biomedical Optics, 2017, 22, 046008.	1.4	38
22	Graphics processing unit-accelerated mesh-based Monte Carlo photon transport simulations. Journal of Biomedical Optics, 2019, 24, 1.	1.4	38
23	Characterization of structural-prior guided optical tomography using realistic breast models derived from dual-energy x-ray mammography. Biomedical Optics Express, 2015, 6, 2366.	1.5	37
24	Hybrid mesh and voxel based Monte Carlo algorithm for accurate and efficient photon transport modeling in complex bio-tissues. Biomedical Optics Express, 2020, 11, 6262.	1.5	35
25	Quantitative assessment of diffuse optical tomography sensitivity to the cerebral cortex using a whole-head probe. Physics in Medicine and Biology, 2012, 57, 2857-2872.	1.6	32
26	Hemodynamic signature of breast cancer under fractional mammographic compression using a dynamic diffuse optical tomography system. Biomedical Optics Express, 2013, 4, 2911.	1.5	32
27	Multimodal reconstruction of microvascular-flow distributions using combined two-photon microscopy and Doppler optical coherence tomography. Neurophotonics, 2015, 2, 015008.	1.7	28
28	Dual-grid mesh-based Monte Carlo algorithm for efficient photon transport simulations in complex three-dimensional media. Journal of Biomedical Optics, 2019, 24, 1.	1.4	24
29	Transcranial photobiomodulation with near-infrared light from childhood to elderliness: simulation of dosimetry. Neurophotonics, 2020, 7, 1.	1.7	22
30	Normalization of compression-induced hemodynamics in patients responding to neoadjuvant chemotherapy monitored by dynamic tomographic optical breast imaging (DTOBI). Biomedical Optics Express, 2017, 8, 555.	1.5	21
31	Frequency domain near-infrared multiwavelength imager design using high-speed, direct analog-to-digital conversion. Journal of Biomedical Optics, 2016, 21, 016010.	1.4	20
32	MCX Cloudâ€"a modern, scalable, high-performance and in-browser Monte Carlo simulation platform with cloud computing. Journal of Biomedical Optics, 2022, 27, .	1.4	20
33	Near infrared spectroscopy for measuring changes in bone hemoglobin content after exercise in individuals with spinal cord injury. Journal of Orthopaedic Research, 2018, 36, 183-191.	1.2	17
34	Light transport modeling in highly complex tissues using the implicit mesh-based Monte Carlo algorithm. Biomedical Optics Express, 2021, 12, 147.	1.5	16
35	Characterizing breast lesions through robust multimodal data fusion using independent diffuse optical and x-ray breast imaging. Journal of Biomedical Optics, 2015, 20, 080502.	1.4	12
36	Graphics processing units-accelerated adaptive nonlocal means filter for denoising three-dimensional Monte Carlo photon transport simulations. Journal of Biomedical Optics, 2018, 23, 1.	1.4	11

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37	Impact of errors in experimental parameters on reconstructed breast images using diffuse optical tomography. Biomedical Optics Express, 2018, 9, 1130.	1.5	10
38	Microwave-Induced Thermoacoustics: Assisting Microwave Tomography. IEEE Transactions on Magnetics, 2009, 45, 1654-1657.	1.2	8
39	Accelerating Monte Carlo modeling of structured-light-based diffuse optical imaging via â€œphoton sharingâ€. Optics Letters, 2020, 45, 2842.	1.7	7
40	BlenderPhotonics: an integrated open-source software environment for three-dimensional meshing and photon simulations in complex tissues. Journal of Biomedical Optics, 2022, 27, .	1.4	7
41	Graphics-processing-unit-accelerated Monte Carlo simulation of polarized light in complex three-dimensional media. Journal of Biomedical Optics, 2022, 27, .	1.4	7
42	Microwave imaging for neoadjuvant chemotherapy monitoring. , 2006, , .		6
43	Comment on â€œA study on tetrahedron-based inhomogeneous Monte-Carlo optical simulationâ€. Biomedical Optics Express, 2011, 2, 1258.	1.5	6
44	A computationally efficient Monteâ€Carlo model for biomedical Raman spectroscopy. Journal of Biophotonics, 2021, 14, e202000377.	1.1	5
45	Signal and measurement considerations for human translation of diffuse in vivo flow cytometry. Journal of Biomedical Optics, 2022, 27, .	1.4	4
46	MOCA: a systematic toolbox for designing and assessing modular functional near-infrared brain imaging probes. Neurophotonics, 2022, 9, .	1.7	2
47	Framework for denoising Monte Carlo photon transport simulations using deep learning. Journal of Biomedical Optics, 2022, 27, .	1.4	2
48	Re-tessellated mesh-based Monte Carlo for wide-field illumination sources. , 2015, , .		0
49	A Simulation Study for Transcranial Photobiomodulation Dosimetry Across Lifespan. , 2020, , .		0
50	Diffuse Optical Tomography. , 2021, , 1-38.		0
51	BlenderPhotonics â€“ an integrated computer-aided design, meshing and Monte Carlo simulation environment for biophotonics. , 2022, , .		0