

# Maciej Szkulmowski

## List of Publications by Year in descending order

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Version: 2024-02-01

108  
papers

2,400  
citations

218381

26  
h-index

197535

49  
g-index

108  
all docs

108  
docs citations

108  
times ranked

1783  
citing authors

#	ARTICLE	IF	CITATIONS
1	Analysis of strain estimation methods in phase-sensitive compression optical coherence elastography. <i>Biomedical Optics Express</i> , 2022, 13, 2224.	1.5	12
2	FreezEye Tracker – novel fast and precise platform for retinal eye-tracking system for psychophysical experiments. , 2022, , .		0
3	Extraction of phase-based optoretinograms (ORG) from serial B-scans acquired by clinical-grade raster scanning OCT system. , 2022, , .		0
4	Optical coherence microscopy allows for quality assessment of immature mouse oocytes. <i>Reproduction</i> , 2022, 164, 83-95.	1.1	4
5	Computational Optimization of the Size of Gold Nanorods for Single-Molecule Plasmonic Biosensors Operating in Scattering and Absorption Modes. <i>Journal of Physical Chemistry C</i> , 2021, 125, 14765-14777.	1.5	2
6	Precise calibration method for arbitrary beam trajectories in scanning optical imaging systems. <i>Optics Letters</i> , 2021, 46, 5377-5380.	1.7	0
7	Artefact-removal algorithms for Fourier domain quantum optical coherence tomography. <i>Scientific Reports</i> , 2021, 11, 18585.	1.6	2
8	Extraction of phase-based optoretinograms (ORG) from serial B-scans acquired over tens of seconds by mouse retinal raster scanning OCT system. <i>Biomedical Optics Express</i> , 2021, 12, 7849.	1.5	9
9	Pupillary Light Reflex Induced by Two-Photon Vision. , 2021, 62, 23.		6
10	Spectral and time domain optical coherence spectroscopy. <i>Optics and Lasers in Engineering</i> , 2020, 133, 106120.	2.0	1
11	In vivo brain imaging with multimodal optical coherence microscopy in a mouse model of thromboembolic photochemical stroke. <i>Neurophotonics</i> , 2020, 7, 1.	1.7	6
12	Blood flow rate estimation in optic disc capillaries and vessels using Doppler optical coherence tomography with 3D fast phase unwrapping. <i>Biomedical Optics Express</i> , 2020, 11, 1336.	1.5	7
13	High-resolution, ultrafast, wide-field retinal eye-tracking for enhanced quantification of fixational and saccadic motion. <i>Biomedical Optics Express</i> , 2020, 11, 3164.	1.5	7
14	Blood flow rate estimation in optic disc capillaries and vessels using Doppler optical coherence tomography. , 2020, , .		0
15	Light microscopy of mammalian gametes and embryos: methods and applications. <i>International Journal of Developmental Biology</i> , 2019, 63, 235-244.	0.3	5
16	Quality improvement of OCT angiograms with elliptical directional filtering. <i>Biomedical Optics Express</i> , 2019, 10, 1013.	1.5	19
17	Computationally effective 2D and 3D fast phase unwrapping algorithms and their applications to Doppler optical coherence tomography. <i>Biomedical Optics Express</i> , 2019, 10, 1365.	1.5	11
18	Complex fast phase unwrapping method for Doppler OCT. , 2019, , .		0

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19	Spatiotemporal optical coherence (STOC) manipulation suppresses coherent cross-talk in full-field swept-source optical coherence tomography. Biomedical Optics Express, 2019, 10, 2032.	1.5	27
20	Bessel beam OCM for analysis of global ischemia in mouse brain. , 2017, , .		0
21	Optical coherence microscopy as a novel, non-invasive method for the 4D live imaging of early mammalian embryos. Scientific Reports, 2017, 7, 4165.	1.6	42
22	Extended-focus optical coherence microscopy for high-resolution imaging of the murine brain. Biomedical Optics Express, 2016, 7, 4400.	1.5	24
23	Spectrometer calibration for spectroscopic Fourier domain optical coherence tomography. Biomedical Optics Express, 2016, 7, 5042.	1.5	27
24	Structural and functional measurements of fertilized mouse oocytes with combined high-resolution OCT and inverted microscope (Conference Presentation). , 2016, , .		0
25	Imaging of the stroke-related changes in the vascular system of the mouse brain with the use of extended focus optical coherence microscopy. Proceedings of SPIE, 2016, , .	0.8	0
26	Wavelength to pixel calibration for FdOCT. Proceedings of SPIE, 2015, , .	0.8	1
27	Spectroscopy by joint spectral and time domain optical coherence tomography. , 2015, , .		1
28	OCT angiography by absolute intensity difference applied to normal and diseased human retinas. Biomedical Optics Express, 2015, 6, 2738.	1.5	29
29	Doppler Fourier Domain Optical Coherence Tomography for Label-Free Tissue Angiography. , 2015, , 1321-1352.		0
30	Spectral OCT with speckle contrast reduction for evaluation of the healing process after PRK and transepithelial PRK. Biomedical Optics Express, 2014, 5, 1089.	1.5	19
31	Angio-OCT as a noninvasive tool for three-dimensional vascular network visualization in retinal diseases. , 2013, , .		0
32	Real time 3D structural and Doppler OCT imaging on graphics processing units. Proceedings of SPIE, 2013, , .	0.8	3
33	Averaging techniques for OCT imaging. Optics Express, 2013, 21, 9757.	1.7	57
34	Multimodal instrument for high-sensitivity autofluorescence and spectral optical coherence tomography of the human eye fundus. Biomedical Optics Express, 2013, 4, 2683.	1.5	9
35	Assessment of the flow velocity of blood cells in a microfluidic device using joint spectral and time domain optical coherence tomography. Optics Express, 2013, 21, 24025.	1.7	28
36	Quantitative lateral and axial flow imaging with optical coherence microscopy and tomography. Optics Express, 2013, 21, 17711.	1.7	39

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37	High sensitive fundus autofluorescence imaging combined with speckle-free optical coherence tomography. Proceedings of SPIE, 2013, , .	0.8	0
38	Estimation of vibration amplitude in Fourier domain optical coherence tomography interferometric signals from Doppler spectrum. , 2013, , .		0
39	Visualization of 3D retinal microcapillary network using OCT. Acta Ophthalmologica, 2013, 91, 0-0.	0.6	1
40	Efficient reduction of speckle noise in Optical Coherence Tomography. Optics Express, 2012, 20, 1337.	1.7	154
41	Microfluidics analysis of blood using joint spectral and time domain optical coherence tomography. Proceedings of SPIE, 2012, , .	0.8	0
42	Angiogram visualization and total velocity blood flow assessment based on intensity information analysis of OCT data. , 2012, , .		2
43	Multi-parametric imaging of murine brain using spectral and time domain optical coherence tomography. Journal of Biomedical Optics, 2012, 17, 101515.	1.4	5
44	Improved measurement of vibration amplitude in dynamic optical coherence elastography. Biomedical Optics Express, 2012, 3, 3138.	1.5	30
45	Four-dimensional structural and Doppler optical coherence tomography imaging on graphics processing units. Journal of Biomedical Optics, 2012, 17, 1.	1.4	21
46	Spectral and time domain OCT: a tool for optimal imaging of biological samples. Proceedings of SPIE, 2012, , .	0.8	0
47	Corneal topography with high-speed swept source OCT in clinical examination. Biomedical Optics Express, 2011, 2, 2709.	1.5	83
48	Corneal topography from spectral optical coherence tomography (sOCT). Biomedical Optics Express, 2011, 2, 3232.	1.5	67
49	Drusen with Accompanying Fluid underneath the Sensory Retina. Ophthalmology, 2011, 118, 82-92.	2.5	38
50	Segmented scanning protocols for speckle contrast reduction in Spectral OCT images. , 2011, , .		0
51	Cortical blood flow imaging of mouse stroke model by high-speed Spectral OCT. Proceedings of SPIE, 2011, , .	0.8	0
52	Real-time massively parallel processing of spectral optical coherence tomography data on graphics processing units. , 2011, , .		3
53	Volumetric Doppler imaging of small animal brain using spectral and time domain optical coherence tomography. Proceedings of SPIE, 2011, , .	0.8	0
54	Observation of flow-dependent blood optical inhomogeneity using joint Spectral and Time domain OCT. , 2011, , .		0

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55	True velocity mapping using joint spectral and time domain optical coherence tomography. , 2010, , .		2
56	Blood flow measurement and slow flow detection in retinal vessels with joint spectral and time domain method in ultrahigh-speed OCT. , 2010, , .		1
57	High-speed optical coherence imaging: towards the structure and the physiology of living tissue. , 2010, , .		0
58	Observation of blood optical inhomogeneity using joint spectral and time domain OCT. , 2010, , .		1
59	Real-time bulk motion insensitive flow segmentation algorithm for Doppler spectral optical coherence tomography. , 2010, , .		0
60	Velocity resolution and minimum detectable velocity in joint Spectral and Time domain OCT. , 2010, , .		1
61	Real-time imaging for Spectral Optical Coherence Tomography with massively parallel data processing. Photonics Letters of Poland, 2010, 2, .	0.2	14
62	Comparison of sensitivity for high speed Fourier domain OCT systems. , 2010, , .		0
63	Comparison of reflectivity maps and outer retinal topography in retinal disease by 3-D Fourier domain optical coherence tomography. Optics Express, 2009, 17, 4189.	1.7	30
64	Anterior segment imaging with Spectral OCT system using a high-speed CMOS camera. Optics Express, 2009, 17, 4842.	1.7	193
65	Three-dimensional quantitative imaging of retinal and choroidal blood flow velocity using joint Spectral and Time domain Optical Coherence Tomography. Optics Express, 2009, 17, 10584.	1.7	96
66	Flow velocity estimation by complex ambiguity free joint Spectral and Time domain Optical Coherence Tomography. Optics Express, 2009, 17, 14281.	1.7	39
67	Ultra high-speed swept source OCT imaging of the anterior segment of human eye at 200 kHz with adjustable imaging range. Optics Express, 2009, 17, 14880.	1.7	214
68	Scanning protocols dedicated to smart velocity ranging in Spectral OCT. Optics Express, 2009, 17, 23736.	1.7	118
69	Segmentation of flowing particles using joint spectral and time domain optical coherence tomography. , 2009, , .		0
70	Three-dimensional retinal blood flow analysis using joint spectral and time domain optical coherence tomography. Proceedings of SPIE, 2009, , .	0.8	0
71	Simultaneous complex ambiguity removal and quantitative flow velocity estimation with joint spectral and time domain OCT. Proceedings of SPIE, 2009, , .	0.8	0
72	Swept source OCT imaging of human anterior segment at 200 kHz. , 2009, , .		1

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73	Analysis of the Outer Retina Reconstructed by High-Resolution, Three-Dimensional Spectral Domain Optical Coherence Tomography. <i>Ophthalmic Surgery Lasers and Imaging Retina</i> , 2009, 40, 102-108.	0.4	18
74	Fuchs' Endothelial Dystrophy in 830-nm Spectral Domain Optical Coherence Tomography. <i>Ophthalmic Surgery Lasers and Imaging Retina</i> , 2009, 40, 198-200.	0.4	17
75	Phase-resolved Doppler optical coherence tomography—limitations and improvements. <i>Optics Letters</i> , 2008, 33, 1425.	1.7	90
76	Improved spectral optical coherence tomography using optical frequency comb. <i>Optics Express</i> , 2008, 16, 4163.	1.7	121
77	Flow velocity estimation using joint Spectral and Time domain Optical Coherence Tomography. <i>Optics Express</i> , 2008, 16, 6008.	1.7	192
78	Correlation of spectral optical coherence tomography with fluorescein and indocyanine green angiography in multiple evanescent white dot syndrome. <i>British Journal of Ophthalmology</i> , 2008, 92, 1552-1557.	2.1	59
79	Simultaneous analysis of extinction and flow velocity with joint spectral and time domain OCT. , 2008, , .		0
80	Flow velocity analysis with joint spectral and time domain OCT. , 2008, , .		0
81	Mapping of photoreceptor dysfunction using high resolution three-dimensional spectral optical coherence tomography. , 2008, , .		0
82	Retinal blood flow analysis using joint spectral and time domain optical coherence tomography. <i>Proceedings of SPIE</i> , 2008, , .	0.8	0
83	Granular Corneal Dystrophy in 830-nm Spectral Optical Coherence Tomography. <i>Cornea</i> , 2008, 27, 830-832.	0.9	24
84	Spectral Optical Coherence Tomography using scanning optical frequency comb generator. , 2008, , .		0
85	Analysis of posterior retinal layers in spectral optical coherence tomography images of the normal retina and retinal pathologies. <i>Journal of Biomedical Optics</i> , 2007, 12, 041207.	1.4	36
86	Fourier domain optical coherence tomography using optical frequency comb. , 2007, , .		2
87	Three-dimensional imaging of eye surface pathologies and contact lens fit with high-resolution spectral optical coherence tomography. , 2007, , .		0
88	Doppler spectral optical coherence tomography with optical frequency shift. <i>Proceedings of SPIE</i> , 2007, , .	0.8	0
89	Retinal Imaging by Spectral Optical Coherence Tomography. <i>European Journal of Ophthalmology</i> , 2007, 17, 238-245.	0.7	7
90	Doppler Spectral Optical Coherence Tomography with optical frequency shift. , 2007, , .		0

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91	In vivo imaging of posterior capsule opacification using Spectral Optical Coherence Tomography. Journal of Cataract and Refractive Surgery, 2006, 32, 1892-1895.	0.7	6
92	Optical Coherence Tomography for Tracking Canvas Deformation. Laser Chemistry, 2006, 2006, 1-8.	0.5	13
93	Spectral optical coherence tomography for ophthalmologic applications. , 2006, , .		0
94	Spectral Optical Coherence Tomography. Cornea, 2006, 25, 960-965.	0.9	100
95	Spectral optical coherence tomography: a new imaging technique in contact lens practice. Ophthalmic and Physiological Optics, 2006, 26, 127-132.	1.0	36
96	High resolution spectral optical coherence tomography for clinical imaging of the anterior segment of the eye. , 2005, , .		0
97	The spectral OCT image extracting without phase measurements. , 2005, , .		0
98	Full-range complex spectral domain optical coherence tomography with arbitrary or unknown phase. , 2005, , .		0
99	Spectral optical coherence tomography in ophthalmology. , 2005, , .		0
100	Improved complex spectral domain OCT for in vivo eye imaging. Optics Communications, 2005, 249, 357-362.	1.0	38
101	Quality improvement for high resolution in vivo images by spectral domain optical coherence tomography with supercontinuum source. Optics Communications, 2005, 246, 569-578.	1.0	48
102	Coherent noise-free ophthalmic imaging by spectral optical coherence tomography. Journal Physics D: Applied Physics, 2005, 38, 2606-2611.	1.3	14
103	High Resolution Spectral Optical Coherence Tomography for Clinical Imaging of the Anterior Segment of the Eye. , 2005, , .		0
104	Standard Versus High Resolution Spectral Optical Coherence Tomography in Imaging of Retinal Pathologies. , 2005, , .		0
105	Complex spectral OCT in human eye imaging in vivo. Optics Communications, 2004, 229, 79-84.	1.0	55
106	Three-dimensional in vivo imaging by spectral OCT. , 2004, , .		6
107	Spectral shaping and least square iterative deconvolution in spectral OCT. , 2004, , .		2
108	Complex spectral OCT in human eye imaging in vivo. , 2003, 5140, 28.		5