Maciej Szkulmowski

List of Publications by Year
in descending order

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	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
2	Anterior segment imaging with Spectral OCT system using a high-speed CMOS camera. Optics Express, 2009, 17, 4842.	1.7	193
3	Flow velocity estimation using joint Spectral and Time domain Optical Coherence Tomography. Optics Express, 2008, 16, 6008.	1.7	192
4	Efficient reduction of speckle noise in Optical Coherence Tomography. Optics Express, 2012, 20, 1337.	1.7	154
5	Improved spectral optical coherence tomography using optical frequency comb. Optics Express, 2008, 16, 4163.	1.7	121
6	Scanning protocols dedicated to smart velocity ranging in Spectral OCT. Optics Express, 2009, 17, 23736.	1.7	118
7	Spectral Optical Coherence Tomography. Cornea, 2006, 25, 960-965.	0.9	100
8	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
9	Phase-resolved Doppler optical coherence tomographyâ€"limitations and improvements. Optics Letters, 2008, 33, 1425.	1.7	90
10	Corneal topography with high-speed swept source OCT in clinical examination. Biomedical Optics Express, 2011, 2, 2709.	1.5	83
11	Corneal topography from spectral optical coherence tomography (sOCT). Biomedical Optics Express, 2011, 2, 3232.	1.5	67
12	Correlation of spectral optical coherence tomography with fluorescein and indocyanine green angiography in multiple evanescent white dot syndrome. British Journal of Ophthalmology, 2008, 92, 1552-1557.	2.1	59
13	Averaging techniques for OCT imaging. Optics Express, 2013, 21, 9757.	1.7	57
14	Complex spectral OCT in human eye imaging in vivo. Optics Communications, 2004, 229, 79-84.	1.0	55
15	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
16	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
17	Flow velocity estimation by complex ambiguity free joint Spectral and Time domain Optical Coherence Tomography. Optics Express, 2009, 17, 14281.	1.7	39
18	Quantitative lateral and axial flow imaging with optical coherence microscopy and tomography. Optics Express, 2013, 21, 17711.	1.7	39

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19	Improved complex spectral domain OCT for in vivo eye imaging. Optics Communications, 2005, 249, 357-362.	1.0	38
20	Drusen with Accompanying Fluid underneath the Sensory Retina. Ophthalmology, 2011, 118, 82-92.	2.5	38
21	Spectral optical coherence tomography: a new imaging technique in contact lens practice. Ophthalmic and Physiological Optics, 2006, 26, 127-132.	1.0	36
22	Analysis of posterior retinal layers in spectral optical coherence tomography images of the normal retina and retinal pathologies. Journal of Biomedical Optics, 2007, 12, 041207.	1.4	36
23	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
24	Improved measurement of vibration amplitude in dynamic optical coherence elastography. Biomedical Optics Express, 2012, 3, 3138.	1.5	30
25	OCT angiography by absolute intensity difference applied to normal and diseased human retinas. Biomedical Optics Express, 2015, 6, 2738.	1.5	29
26	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
27	Spectrometer calibration for spectroscopic Fourier domain optical coherence tomography. Biomedical Optics Express, 2016, 7, 5042.	1.5	27
28	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
29	Granular Corneal Dystrophy in 830-nm Spectral Optical Coherence Tomography. Cornea, 2008, 27, 830-832.	0.9	24
30	Extended-focus optical coherence microscopy for high-resolution imaging of the murine brain. Biomedical Optics Express, 2016, 7, 4400.	1.5	24
31	Four-dimensional structural and Doppler optical coherence tomography imaging on graphics processing units. Journal of Biomedical Optics, 2012, 17, 1.	1.4	21
32	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
33	Quality improvement of OCT angiograms with elliptical directional filtering. Biomedical Optics Express, 2019, 10, 1013.	1.5	19
34	Analysis of the Outer Retina Reconstructed by High-Resolution, Three-Dimensional Spectral Domain Optical Coherence Tomography. Ophthalmic Surgery Lasers and Imaging Retina, 2009, 40, 102-108.	0.4	18
35	Fuchs' Endothelial Dystrophy in 830-nm Spectral Domain Optical Coherence Tomography. Ophthalmic Surgery Lasers and Imaging Retina, 2009, 40, 198-200.	0.4	17
36	Coherent noise-free ophthalmic imaging by spectral optical coherence tomography. Journal Physics D: Applied Physics, 2005, 38, 2606-2611.	1.3	14

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37	Real-time imaging for Spectral Optical Coherence Tomography with massively parallel data processing. Photonics Letters of Poland, 2010, 2, .	0.2	14
38	Optical Coherence Tomography for Tracking Canvas Deformation. Laser Chemistry, 2006, 2006, 1-8.	0.5	13
39	Analysis of strain estimation methods in phase-sensitive compression optical coherence elastography. Biomedical Optics Express, 2022, 13, 2224.	1.5	12
40	Computationally effective 2D and 3D fast phase unwrapping algorithms and their applications to Doppler optical coherence tomography. Biomedical Optics Express, 2019, 10, 1365.	1.5	11
41	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
42	Extraction of phase-based optoretinograms (ORG) from serial B-scans acquired over tens of seconds by mouse retinal raster scanning OCT system. Biomedical Optics Express, 2021, 12, 7849.	1.5	9
43	Retinal Imaging by Spectral Optical Coherence Tomography. European Journal of Ophthalmology, 2007, 17, 238-245.	0.7	7
44	Blood flow rate estimation in optic disc capillaries and vessels using Doppler optical coherence tomography with 3D fast phase unwrapping. Biomedical Optics Express, 2020, 11, 1336.	1.5	7
45	High-resolution, ultrafast, wide-field retinal eye-tracking for enhanced quantification of fixational and saccadic motion. Biomedical Optics Express, 2020, 11, 3164.	1.5	7
46	Three-dimensional in vivo imaging by spectral OCT. , 2004, , .		6
47	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
48	In vivo brain imaging with multimodal optical coherence microscopy in a mouse model of thromboembolic photochemical stroke. Neurophotonics, 2020, 7, 1.	1.7	6
49	Pupillary Light Reflex Induced by Two-Photon Vision. , 2021, 62, 23.		6
50	Complex spectral OCT in human eye imaging in vivo. , 2003, 5140, 28.		5
51	Multi-parametric imaging of murine brain using spectral and time domain optical coherence tomography. Journal of Biomedical Optics, 2012, 17, 101515.	1.4	5
52	Light microscopy of mammalian gametes and embryos: methods and applications. International Journal of Developmental Biology, 2019, 63, 235-244.	0.3	5
53	Optical coherence microscopy allows for quality assessment of immature mouse oocytes. Reproduction, 2022, 164, 83-95.	1.1	4
54	Real-time massively parallel processing of spectral optical coherence tomography data on graphics processing units. , 2011, , .		3

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55	Real time 3D structural and Doppler OCT imaging on graphics processing units. Proceedings of SPIE, 2013, , .	0.8	3
56	Spectral shaping and least square iterative deconvolution in spectral OCT. , 2004, , .		2
57	Fourier domain optical coherence tomography using optical frequency comb. , 2007, , .		2
58	True velocity mapping using joint spectral and time domain optical coherence tomography. , 2010, , .		2
59	Angiogram visualization and total velocity blood flow assessment based on intensity information analysis of OCT data. , 2012, , .		2
60	Computational Optimization of the Size of Gold Nanorods for Single-Molecule Plasmonic Biosensors Operating in Scattering and Absorption Modes. Journal of Physical Chemistry C, 2021, 125, 14765-14777.	1.5	2
61	Artefact-removal algorithms for Fourier domain quantum optical coherence tomography. Scientific Reports, 2021, 11, 18585.	1.6	2
62	Swept source OCT imaging of human anterior segment at 200 kHz. , 2009, , .		1
63	Blood flow measurement and slow flow detection in retinal vessels with joint spectral and time domain method in ultrahigh-speed OCT. , 2010, , .		1
64	Observation of blood optical inhomogeneity using joint spectral and time domain OCT. , 2010, , .		1
65	Wavelength to pixel calibration for FdOCT. Proceedings of SPIE, 2015, , .	0.8	1
66	Spectroscopy by joint spectral and time domain optical coherence tomography. , 2015, , .		1
67	Spectral and time domain optical coherence spectroscopy. Optics and Lasers in Engineering, 2020, 133, 106120.	2.0	1
68	Velocity resolution and minimum detectable velocity in joint Spectral and Time domain OCT. , 2010, , .		1
69	Visualization of 3D retinal microcapillary network using OCT. Acta Ophthalmologica, 2013, 91, 0-0.	0.6	1
70	High resolution spectral optical coherence tomography for clinical imaging of the anterior segment of the eye. , 2005, , .		0
71	The spectral OCT image extracting without phase measurements. , 2005, , .		0
72	Full-range complex spectral domain optical coherence tomography with arbitrary or unknown phase. , 2005, , .		0

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73	Spectral optical coherence tomography in ophthalmology. , 2005, , .		0
74	Spectral optical coherence tomography for ophthalmologic applications. , 2006, , .		0
75	Three-dimensional imaging of eye surface pathologies and contact lens fit with high-resolution spectral optical coherence tomography. , 2007, , .		0
76	Doppler spectral optical coherence tomography with optical frequency shift. Proceedings of SPIE, 2007, , .	0.8	0
77	Simultaneous analysis of extinction and flow velocity with joint spectral and time domain OCT. , 2008, , .		0
78	Flow velocity analysis with joint spectral and time domain OCT. , 2008, , .		0
79	Mapping of photoreceptor dysfunction using high resolution three-dimensional spectral optical coherence tomography. , 2008, , .		0
80	Retinal blood flow analysis using joint spectral and time domain optical coherence tomography. Proceedings of SPIE, 2008, , .	0.8	0
81	Segmentation of flowing particles using joint spectral and time domain optical coherence tomography. , 2009, , .		0
82	Three-dimensional retinal blood flow analysis using joint spectral and time domain optical coherence tomography. Proceedings of SPIE, 2009, , .	0.8	0
83	Simultaneous complex ambiguity removal and quantitative flow velocity estimation with joint spectral and time domain OCT. Proceedings of SPIE, 2009, , .	0.8	0
84	High-speed optical coherence imaging: towards the structure and the physiology of living tissue. , 2010, , .		0
85	Real-time bulk motion insensitive flow segmentation algorithm for Doppler spectral optical coherence tomography. , 2010, , .		0
86	Segmented scanning protocols for speckle contrast reduction in Spectral OCT images. , 2011, , .		0
87	Cortical blood flow imaging of mouse stroke model by high-speed Spectral OCT. Proceedings of SPIE, 2011, , .	0.8	0
88	Volumetric Doppler imaging of small animal brain using spectral and time domain optical coherence tomography. Proceedings of SPIE, 2011, , .	0.8	0
89	Microfluidics analysis of blood using joint spectral and time domain optical coherence tomography. Proceedings of SPIE, 2012, , .	0.8	0
90	Spectral and time domain OCT: a tool for optimal imaging of biological samples. Proceedings of SPIE, 2012, , .	0.8	0

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91	Angio-OCT as a noninvasive tool for three-dimensional vascular network visualization in retinal diseases. , 2013, , .		0
92	High sensitive fundus autofluorescence imaging combined with speckle-free optical coherence tomography. Proceedings of SPIE, 2013, , .	0.8	0
93	Structural and functional measurements of fertilized mouse oocytes with combined high-resolution OCT and inverted microscope (Conference Presentation). , 2016, , .		0
94	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
95	Bessel beam OCM for analysis of global ischemia in mouse brain. , 2017, , .		0
96	Precise calibration method for arbitrary beam trajectories in scanning optical imaging systems. Optics Letters, 2021, 46, 5377-5380.	1.7	0
97	High Resolution Spectral Optical Coherence Tomography for Clinical Imaging of the Anterior Segment of the Eye. , 2005, , .		0
98	Standard Versus High Resolution Spectral Optical Coherence Tomography in Imaging of Retinal Pathologies. , 2005, , .		0
99	Doppler Spectral Optical Coherence Tomography with optical frequency shift. , 2007, , .		0
100	Spectral Optical Coherence Tomography using scanning optical frequency comb generator. , 2008, , .		0
101	Comparison of sensitivity for high speed Fourier domain OCT systems. , 2010, , .		0
102	Observation of flow-dependent blood optical inhomogeneity using joint Spectral and Time domain OCT. , 2011, , .		0
103	Estimation of vibration amplitude in Fourier domain optical coherence tomography interferometric signals from Doppler spectrum. , 2013, , .		0
104	Doppler Fourier Domain Optical Coherence Tomography for Label-Free Tissue Angiography. , 2015, , 1321-1352.		0
105	Complex fast phase unwrapping method for Doppler OCT. , 2019, , .		0
106	Blood flow rate estimation in optic disc capillaries and vessels using Doppler optical coherence tomography. , 2020, , .		0
107	FreezEye Tracker â€“ novel fast and precise platform for retinal eye-tracking system for psychophysical experiments. , 2022, , .		0
108	Extraction of phase-based optoretinograms (ORG) from serial B-scans acquired by clinical-grade raster scanning OCT system. , 2022, , .		0