Michael D. Abrà moff

List of Publications by Year
in descending order

285 papers	19,926 citations	29994 54 h-index	19136 118 g-index
290 all docs	290 docs citations	290 times ranked	12189 citing authors

#	Article	IF	Citations
1	Evaluation of retinal nerve fibre layer thickness as a possible measure of diabetic retinal neurodegeneration in the EPIC-Norfolk Eye Study. British Journal of Ophthalmology, 2023, 107, 705-711.	2.1	3
2	Foundational Considerations for Artificial Intelligence Using Ophthalmic Images. Ophthalmology, 2022, 129, e14-e32.	2.5	43
3	Invited Session I: Artificial intelligence applications in ophthalmology and vision science: Autonomous AI for the Diabetic Eye Exam for improving outcomes: Lessons learnt. Journal of Vision, 2022, 22, 43.	0.1	0
4	Artificial Intelligence for Retinopathy of Prematurity. Ophthalmology, 2022, 129, e69-e76.	2.5	23
5	A Case for the Use of Artificial Intelligence in Glaucoma Assessment. Ophthalmology Glaucoma, 2022, 5, e3-e13.	0.9	10
6	Potential reduction in healthcare carbon footprint by autonomous artificial intelligence. Npj Digital Medicine, 2022, 5, 62.	5.7	13
7	A reimbursement framework for artificial intelligence in healthcare. Npj Digital Medicine, 2022, 5, .	5.7	33
8	A Delphi consensus statement for digital surgery. Npj Digital Medicine, 2022, 5, .	5.7	28
9	Autonomous Artificial Intelligence in Diabetic Retinopathy: From Algorithm to Clinical Application. Journal of Diabetes Science and Technology, 2021, 15, 695-698.	1.3	14
10	Updating the Staging System for Diabetic Retinal Disease. Ophthalmology, 2021, 128, 490-493.	2.5	49
11	The SEE Study: Safety, Efficacy, and Equity of Implementing Autonomous Artificial Intelligence for Diagnosing Diabetic Retinopathy in Youth. Diabetes Care, 2021, 44, 781-787.	4.3	27
12	Tools for Responding to Patient-Initiated Verbal Sexual Harassment: A Workshop for Trainees and Faculty. MedEdPORTAL: the Journal of Teaching and Learning Resources, 2021, 17, 11096.	0.5	13
13	Racial/Ethnic Disparities and Barriers to Diabetic Retinopathy Screening in Youths. JAMA Ophthalmology, 2021, 139, 791.	1.4	21
14	Automated segmentation of choroidal layers from 3-dimensional macular optical coherence tomography scans. Journal of Neuroscience Methods, 2021, 360, 109267.	1.3	5
15	Detecting retinal neurodegeneration in people with diabetes: Findings from the UK Biobank. PLoS ONE, 2021, 16, e0257836.	1.1	8
16	Autonomous Artificial Intelligence Safety and Trust. , 2021, , 55-67.		0
17	A quality assessment tool for artificial intelligence-centered diagnostic test accuracy studies: QUADAS-AI. Nature Medicine, 2021, 27, 1663-1665.	15.2	76
18	The Collaborative Community on Ophthalmic Imaging: Accelerating Global Innovation and Clinical Utility. Ophthalmology, 2021, , .	2.5	2

#	Article	IF	Citations
19	Commentary: Diagnosing Diabetic Retinopathy With Artificial Intelligence: What Information Should Be Included to Ensure Ethical Informed Consent?. Frontiers in Medicine, 2021, 8, 765936.	1.2	1
20	Artificial intelligence for diabetic retinopathy screening: a review. Eye, 2020, 34, 451-460.	1.1	183
21	Is automated screening for diabetic retinopathy indeed not yet ready as stated by Grauslund etÂal.?. Acta Ophthalmologica, 2020, 98, e257-e258.	0.6	1
22	Current Challenges and Barriers to Real-World Artificial Intelligence Adoption for the Healthcare System, Provider, and the Patient. Translational Vision Science and Technology, 2020, 9, 45.	1.1	85
23	Evaluation and Care of Patients with Diabetic Retinopathy. New England Journal of Medicine, 2020, 383, e31.	13.9	7
24	Identifying Ethical Considerations for Machine Learning Healthcare Applications. American Journal of Bioethics, 2020, 20, 7-17.	0.5	160
25	A Framework to Evaluate Ethical Considerations with ML-HCA Applicationsâ€"Valuable, Even Necessary, but Never Comprehensive. American Journal of Bioethics, 2020, 20, W6-W10.	0.5	2
26	Cost-effectiveness of Autonomous Point-of-Care Diabetic Retinopathy Screening for Pediatric Patients With Diabetes. JAMA Ophthalmology, 2020, 138, 1063.	1.4	50
27	Reporting Guidelines for Artificial Intelligence in Medical Research. Ophthalmology, 2020, 127, 1596-1599.	2.5	22
28	A U.S. Survey of Sexual Harassment in Ophthalmology Training Using a Novel Standardized Scale. Journal of Academic Ophthalmology (2017), 2020, 12, e27-e35.	0.2	4
29	Optimal surface segmentation with subvoxel accuracy in spectral domain optical coherence tomography images. , 2020, , 69-91.		0
30	Practice Guidelines for Ocular Telehealth-Diabetic Retinopathy, Third Edition. Telemedicine Journal and E-Health, 2020, 26, 495-543.	1.6	47
31	Automated and Computer-Assisted Detection, Classification, and Diagnosis of Diabetic Retinopathy. Telemedicine Journal and E-Health, 2020, 26, 544-550.	1.6	17
32	Lessons Learned About Autonomous AI: Finding a Safe, Efficacious, and Ethical Path Through the Development Process. American Journal of Ophthalmology, 2020, 214, 134-142.	1.7	72
33	The autonomous point-of-care diabetic retinopathy examination. , 2020, , 159-178.		2
34	The spatial relation of diabetic retinal neurodegeneration with diabetic retinopathy. PLoS ONE, 2020, 15, e0231552.	1.1	15
35	Responding to Patient-Initiated Verbal Sexual Harassment: Outcomes of a Pilot Training for Ophthalmologists. Journal of Academic Ophthalmology (2017), 2020, 12, e175-e180.	0.2	4
36	Multiresolution LOGISMOS graph search for automated choroidal layer segmentation of 3D macular OCT scans. , 2020, , .		3

#	Article	IF	Citations
37	The spatial relation of diabetic retinal neurodegeneration with diabetic retinopathy. , 2020, 15, e0231552.		0
38	The spatial relation of diabetic retinal neurodegeneration with diabetic retinopathy. , 2020, 15, e0231552.		0
39	The spatial relation of diabetic retinal neurodegeneration with diabetic retinopathy. , 2020, 15, e0231552.		0
40	The spatial relation of diabetic retinal neurodegeneration with diabetic retinopathy. , 2020, 15, e0231552.		0
41	The spatial relation of diabetic retinal neurodegeneration with diabetic retinopathy. , 2020, 15, e0231552.		0
42	The spatial relation of diabetic retinal neurodegeneration with diabetic retinopathy. , 2020, 15, e0231552.		0
43	The spatial relation of diabetic retinal neurodegeneration with diabetic retinopathy. , 2020, 15, e0231552.		0
44	The spatial relation of diabetic retinal neurodegeneration with diabetic retinopathy. , 2020, 15, e0231552.		0
45	Diabetic Retinal Neurodegeneration—Should We Redefine Retinopathy From Diabetes?. JAMA Ophthalmology, 2019, 137, 1132.	1.4	8
46	Observations and Lessons Learned From the Artificial Intelligence Studies for Diabetic Retinopathy Screening. JAMA Ophthalmology, 2019, 137, 994.	1.4	7
47	Intravitreal Fluocinolone Acetonide May Decelerate Diabetic Retinal Neurodegeneration. , 2019, 60, 2134.		12
48	Choriocapillaris Degeneration in Geographic Atrophy. American Journal of Pathology, 2019, 189, 1473-1480.	1.9	48
49	Deep learning in ophthalmology: The technical and clinical considerations. Progress in Retinal and Eye Research, 2019, 72, 100759.	7.3	300
50	A data-driven approach to referable diabetic retinopathy detection. Artificial Intelligence in Medicine, 2019, 96, 93-106.	3.8	103
51	Diagnostic Accuracy of a Device for the Automated Detection of Diabetic Retinopathy in a Primary Care Setting. Diabetes Care, 2019, 42, 651-656.	4.3	77
52	Optimal surface segmentation with convex priors in irregularly sampled space. Medical Image Analysis, 2019, 54, 63-75.	7.0	11
53	End-to-End Adversarial Retinal Image Synthesis. IEEE Transactions on Medical Imaging, 2018, 37, 781-791.	5.4	277
54	Fluorescein Angiography Does Not Alter the Initial Clinical Management of Choroidal Neovascularization in Age-Related Macular Degeneration. Ophthalmology Retina, 2018, 2, 659-666.	1.2	6

#	Article	IF	Citations
55	DYSFUNCTIONAL AUTONOMIC REGULATION OF THE CHOROID IN CENTRAL SEROUS CHORIORETINOPATHY. Retina, 2018, 38, 1205-1210.	1.0	17
56	Validation of automated screening for referable diabetic retinopathy with the IDxâ€DR device in the Hoorn Diabetes Care System. Acta Ophthalmologica, 2018, 96, 63-68.	0.6	195
57	Urinary Î²2-microglobulin and disease activity in patients with tubulointerstitial nephritis and uveitis syndrome. Journal of Ophthalmic Inflammation and Infection, 2018, 8, 24.	1.2	14
58	Use of Expectation Disconfirmation Theory to Test Patient Satisfaction with Asynchronous Telemedicine for Diabetic Retinopathy Detection. International Journal of Telemedicine and Applications, 2018, 2018, 1-14.	1.1	18
59	Multiple surface segmentation using convolution neural nets: application to retinal layer segmentation in OCT images. Biomedical Optics Express, 2018, 9, 4509.	1.5	95
60	Pivotal trial of an autonomous AI-based diagnostic system for detection of diabetic retinopathy in primary care offices. Npj Digital Medicine, 2018, 1, 39.	5.7	796
61	Susceptibility to misdiagnosis of adversarial images by deep learning based retinal image analysis algorithms. , 2018, , .		21
62	Approach for a Clinically Useful Comprehensive Classification of Vascular and Neural Aspects of Diabetic Retinal Disease. , 2018, 59, 519.		62
63	Neural dysfunction and retinopathy in persons with type 1 diabetes. Ophthalmic Epidemiology, 2018, 25, 373-378.	0.8	2
64	Multi-layer 3D Simultaneous Retinal OCT Layer Segmentation: Just-Enough Interaction for Routine Clinical Use. Lecture Notes in Computational Vision and Biomechanics, 2018, , 862-871.	0.5	1
65	An improved arteriovenous classification method for the early diagnostics of various diseases in retinal image. Computer Methods and Programs in Biomedicine, 2017, 141, 3-9.	2.6	73
66	A machine-learning graph-based approach for 3D segmentation of Bruchâ€™s membrane opening from glaucomatous SD-OCT volumes. Medical Image Analysis, 2017, 39, 206-217.	7.0	28
67	Diabetic retinopathy is a neurodegenerative disorder. Vision Research, 2017, 139, 101-107.	0.7	139
68	Nerve Fiber Layer Thickness and Characteristics Associated with Glaucoma in Community Living Older Adults: Prelude to a Screening Trial?. Ophthalmic Epidemiology, 2017, 24, 104-110.	0.8	6
69	Choroidal Features of Acute Macular Neuroretinopathy via Optical Coherence Tomography Angiography and Correlation With Serial Multimodal Imaging. JAMA Ophthalmology, 2017, 135, 1177.	1.4	45
70	Incorporation of gradient vector flow field in a multimodal graph-theoretic approach for segmenting the internal limiting membrane from glaucomatous optic nerve head-centered SD-OCT volumes. Computerized Medical Imaging and Graphics, 2017, 55, 87-94.	3.5	16
71	Optical Coherence Tomography Analysis Based Prediction of Humphrey 24-2 Visual Field Thresholds in Patients With Glaucoma. , 2017, 58, 3975.		34
72	Novel method using 3-dimensional segmentation in spectral domain-optical coherence tomography imaging in the chick reveals defocus-induced regional and time-sensitive asymmetries in the choroidal thicknessâ€"ADDENDUM. Visual Neuroscience, 2017, 34, .	0.5	0

#	Article	IF	Citations
73	Use of a Supplemental Oxygen Protocol to Suppress Progression of Retinopathy of Prematurity. , 2017, 58, 887.		20
74	Spatial Correspondence Between Intraretinal Fluid, Subretinal Fluid, and Pigment Epithelial Detachment in Neovascular Age-Related Macular Degeneration. , 2017, 58, 4039.		30
75	Simultaneous Multiple Surface Segmentation Using Deep Learning. Lecture Notes in Computer Science, 2017, , 3-11.	1.0	13
76	Effects of Aflibercept for Neovascular Age-Related Macular Degeneration: A Systematic Review and Meta-Analysis of Observational Comparative Studies. , 2017, 58, 5616-5627.		24
77	The Eye as a Window to the Brain: Neuroretinal Thickness Is Associated With Microstructural White Matter Injury in HIV-Infected Children. , 2016, 57, 3864.		22
78	4D Graph-Based Segmentation for Reproducible and Sensitive Choroid Quantification From Longitudinal OCT Scans. , 2016, 57, OCT621.		5
79	HIV-Associated Neuroretinal Disorder in Patients With Well-Suppressed HIV-Infection: A Comparative Cohort Study. , 2016, 57, 1388.		15
80	Automated Segmentability Index for Layer Segmentation of Macular SD-OCT Images. Translational Vision Science and Technology, 2016, 5, 14.	1.1	15
81	Multimodal registration of SD-OCT volumes and fundus photographs using histograms of oriented gradients. Biomedical Optics Express, 2016, 7, 5252.	1.5	21
82	Improved Automated Detection of Diabetic Retinopathy on a Publicly Available Dataset Through Integration of Deep Learning. , 2016, 57, 5200.		749
83	Optimal retinal cyst segmentation from OCT images. Proceedings of SPIE, 2016, , .	0.8	8
84	Retinal neurodegeneration may precede microvascular changes characteristic of diabetic retinopathy in diabetes mellitus. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E2655-64.	3.3	442
85	Novel method using 3-dimensional segmentation in spectral domain-optical coherence tomography imaging in the chick reveals defocus-induced regional and time-sensitive asymmetries in the choroidal thickness. Visual Neuroscience, 2016, 33, E010.	0.5	12
86	PMMA-based ophthalmic contact lens for vision correction of strabismus. , 2016, , .		4
87	Quantitative analysis of retinal OCT. Medical Image Analysis, 2016, 33, 165-169.	7.0	45
88	Automated Axon Counting in Rodent Optic Nerve Sections with AxonJ. Scientific Reports, 2016, 6, 26559.	1.6	30
89	Quantitative measurement of retinal ganglion cell populations via histology-based random forest classification. Experimental Eye Research, 2016, 146, 370-385.	1.2	23
90	Choroidal thickness maps from spectral domain and swept source optical coherence tomography: algorithmic versus ground truth annotation. British Journal of Ophthalmology, 2016, 100, 1372-1376.	2.1	34

#	Article	IF	Citations
91	RetFM-J, an ImageJ-based module for automated counting andÂquantifying features of nuclei in retinal whole-mounts. Experimental Eye Research, 2016, 146, 386-392.	1.2	24
92	Evaluating Efficacy of Aflibercept in Refractory Exudative Age-Related Macular Degeneration With OCT Segmentation Volumetric Analysis. Ophthalmic Surgery Lasers and Imaging Retina, 2016, 47, 245-251.	0.4	4
93	Retinal Structure and Function in Perinatally HIV-Infected and cART-Treated Children: A Matched Caseâ€"Control Study. , 2015, 56, 3945.		7
94	Validity of Automated Choroidal Segmentation in SS-OCT and SD-OCT. , 2015, 56, 3202.		74
95	Characterizing the Impact of Off-Axis Scan Acquisition on the Reproducibility of Total Retinal Thickness Measurements in SDOCT Volumes. Translational Vision Science and Technology, 2015, 4, 3.	1.1	9
96	Results of Automated Retinal Image Analysis for Detection of Diabetic Retinopathy from the Nakuru Study, Kenya. PLoS ONE, 2015, 10, e0139148.	1.1	63
97	Thickness Mapping of Eleven Retinal Layers Segmented Using the Diffusion Maps Method in Normal Eyes. Journal of Ophthalmology, 2015, 2015, 1-14.	0.6	26
98	Stereo Photo Measured ONH Shape Predicts Development of POAG in Subjects With Ocular Hypertension. , 2015, 56, 4470.		3
99	Comparison of Retinal and Choriocapillaris Thicknesses Following Sitting to Supine Transition in Healthy Individuals and Patients With Age-Related Macular Degeneration. JAMA Ophthalmology, 2015, 133, 297.	1.4	33
100	Automated construction of arterial and venous trees in retinal images. Journal of Medical Imaging, 2015, 2, 044001.	0.8	35
101	Stratified Sampling Voxel Classification for Segmentation of Intraretinal and Subretinal Fluid in Longitudinal Clinical OCT Data. IEEE Transactions on Medical Imaging, 2015, 34, 1616-1623.	5.4	77
102	Multimodal Segmentation of Optic Disc and Cup From SD-OCT and Color Fundus Photographs Using a Machine-Learning Graph-Based Approach. IEEE Transactions on Medical Imaging, 2015, 34, 1854-1866.	5.4	62
103	Fast and memory-efficient LOGISMOS graph search for intraretinal layer segmentation of 3D macular OCT scans. Proceedings of SPIE, 2015, , .	0.8	0
104	Relationships of Retinal Structure and Humphrey 24-2 Visual Field Thresholds in Patients With Glaucoma. Investigative Ophthalmology and Visual Science, 2015, 56, 259-271.	3.3	43
105	Optical density filters modeling media opacities cause decreased SDâ€OCT retinal layer thickness measurements with interâ€•and intraâ€•individual variation. Acta Ophthalmologica, 2015, 93, 355-361.	0.6	18
106	New Concepts in Orbital Imaging. , 2015, , 111-120.		0
107	Structural and Biochemical Analyses of Choroidal Thickness in Human Donor Eyes. , 2014, 55, 1352.		77
108	Automated Method for Identification and Artery-Venous Classification of Vessel Trees in Retinal Vessel Networks. PLoS ONE, 2014, 9, e88061.	1.1	66

#	Article	IF	Citations
109	Automated 3D Segmentation of Intraretinal Surfaces in SD-OCT Volumes in Normal and Diabetic Mice. Translational Vision Science and Technology, 2014, 3, 8.	1.1	15
110	Quantifying Disrupted Outer Retinal-Subretinal Layer in SD-OCT Images in Choroidal Neovascularization. , 2014, 55, 2329.		26
111	Multi-Surface and Multi-Field Co-Segmentation of 3-D Retinal Optical Coherence Tomography. IEEE Transactions on Medical Imaging, 2014, 33, 2242-2253.	5.4	29
112	Estimating maximal measurable performance for automated decision systems from the characteristics of the reference standard. application to diabetic retinopathy screening. , 2014, 2014, 154-7.		9
113	Automated discovery of structural features of the optic nerve head on the basis of image and genetic data. , 2014, , .		2
114	Population-Based Evaluation of Retinal Nerve Fiber Layer, Retinal Ganglion Cell Layer, and Inner Plexiform Layer as a Diagnostic Tool For Glaucoma. Investigative Ophthalmology and Visual Science, 2014, 55, 8428-8438.	3.3	33
115	Quantitative measurement of retinal hemorrhages in suspected victims of child abuse. Journal of AAPOS, 2014, 18, 529-533.	0.2	6
116	Incorporation of learned shape priors into a graph-theoretic approach with application to the 3D segmentation of intraretinal surfaces in SD-OCT volumes of mice. Proceedings of SPIE, 2014, , .	0.8	0
117	Outer Segment Length in Different Best Disease Genotypes. JAMA Ophthalmology, 2014, 132, 1152.	1.4	3
118	Three-Dimensional Automated Choroidal Volume Assessment on Standard Spectral-Domain Optical Coherence Tomography and Correlation With the Level ofÂDiabetic Macular Edema. American Journal of Ophthalmology, 2014, 158, 1039-1048.e1.	1.7	70
119	Progress on retinal image analysis for age related macular degeneration. Progress in Retinal and Eye Research, 2014, 38, 20-42.	7.3	132
120	Automated 3D Segmentation of Multiple Surfaces with a Shared Hole: Segmentation of the Neural Canal Opening in SD-OCT Volumes. Lecture Notes in Computer Science, 2014, 17, 739-746.	1.0	16
121	Subvoxel Accurate Graph Search Using Non-Euclidean Graph Space. PLoS ONE, 2014, 9, e107763.	1.1	10
122	Automated detection of retinal disease. American Journal of Managed Care, 2014, 20, eSP48-52.	0.8	7
123	Automated Analysis of Retinal Images for Detection of Referable Diabetic Retinopathy. JAMA Ophthalmology, 2013, 131, 351.	1.4	312
124	Optimal filter approach for the detection of vessel bifurcations in color fundus images. , 2013, , .		0
125	Validating Retinal Fundus Image Analysis Algorithms: Issues and a Proposal. , 2013, 54, 3546.		142
126	Variability in photocoagulation treatment of diabetic macular oedema. Acta Ophthalmologica, 2013, 91, 722-727.	0.6	5

#	Article	IF	Citations
127	Intra-retinal layer segmentation of 3D optical coherence tomography using coarse grained diffusion map. Medical Image Analysis, 2013, 17, 907-928.	7.0	140
128	Changes in quantitative 3D shape features of the optic nerve head associated with age. Proceedings of SPIE, 2013, , .	0.8	1
129	Splat Feature Classification With Application to Retinal Hemorrhage Detection in Fundus Images. IEEE Transactions on Medical Imaging, 2013, 32, 364-375.	5.4	147
130	A combined machine-learning and graph-based framework for the segmentation of retinal surfaces in SD-OCT volumes. Biomedical Optics Express, 2013, 4, 2712.	1.5	46
131	Optical Coherence Tomography Noise Reduction Using Anisotropic Local Bivariate Gaussian Mixture Prior in 3D Complex Wavelet Domain. International Journal of Biomedical Imaging, 2013, 2013, 1-23.	3.0	26
132	Multimodal segmentation of optic disc and cup from stereo fundus and SD-OCT images. Proceedings of SPIE, 2013, , .	0.8	8
133	Effect of Age on Individual Retinal Layer Thickness in Normal Eyes as Measured With Spectral-Domain Optical Coherence Tomography. , 2013, 54, 4934.		157
134	Reproducibility of SD-OCTâ€"Based Ganglion Cellâ€"Layer Thickness in Glaucoma Using Two Different Segmentation Algorithms. , 2013, 54, 6998.		22
135	Curvature correction of retinal OCTs using graph-based geometry detection. Physics in Medicine and Biology, 2013, 58, 2925-2938.	1.6	33
136	Intra-retinal layer segmentation of optical coherence tomography using diffusion map. , 2013, , .		10
137	Vessel segmentation in images of optical coherence tomography using shadow information and thickening of Retinal Nerve Fiber Layer. , 2013, , .		6
138	Extending the XNAT archive tool for image and analysis management in ophthalmology research. Proceedings of SPIE, 2013, , .	0.8	0
139	Reproducibility of Diabetic Macular Edema Estimates From SD-OCT Is Affected by the Choice of Image Analysis Algorithm. , 2013, 54, 4184.		27
140	Selection of Phototransduction Genes in<i>Homo sapiens</i>. , 2013, 54, 5489.		1
141	Adjustment of the Retinal Angle in SD-OCT of Glaucomatous Eyes Provides Better Intervisit Reproducibility of Peripapillary RNFL Thickness. , 2013, 54, 4808.		12
142	Human Photoreceptor Outer Segments Shorten During Light Adaptation. , 2013, 54, 3721.		63
143	Automated Separation of Binary Overlapping Trees in Low-Contrast Color Retinal Images. Lecture Notes in Computer Science, 2013, 16, 436-443.	1.0	53
144	Automated Detection of Malarial Retinopathy-Associated Retinal Hemorrhages. , 2012, 53, 6582.		21

#	Article	IF	Citations
145	Quantitative Evaluation of Papilledema from Stereoscopic Color Fundus Photographs. , 2012, 53, 4490.		18
146	Quantification of External Limiting Membrane Disruption Caused by Diabetic Macular Edema from SD-OCT. , 2012, 53, 8042.		42
147	Optimizing the Information Yield of 3-D OCT in Glaucoma. , 2012, 53, 8162.		8
148	Automated artery-venous classification of retinal blood vessels based on structural mapping method. Proceedings of SPIE, 2012, , .	0.8	10
149	Three-dimensional Distribution of the Vitelliform Lesion, Photoreceptors, and Retinal Pigment Epithelium in the Macula of Patients With Best Vitelliform Macular Dystrophy. JAMA Ophthalmology, 2012, 130, 357.	2.6	54
150	Early Neurodegeneration in the Retina of Type 2 Diabetic Patients. , 2012, 53, 2715.		273
151	Automated Segmentation of the Choroid from Clinical SD-OCT. , 2012, 53, 7510.		128
152	Registration of 3D spectral OCT volumes combining ICP with a graph-based approach. , 2012, , .		10
153	Parallel graph search: application to intraretinal layer segmentation of 3-D macular OCT scans. , 2012, , .		2
154	Distribution of Damage to the Entire Retinal Ganglion Cell Pathway. JAMA Ophthalmology, 2012, 130, 1118.	2.6	23
155	Retinal vessel width measurement at branching points using an improved electric field theory-based graph approach. Proceedings of SPIE, 2012, , .	0.8	2
156	VALIDATION OF TABLET-BASED EVALUATION OF COLOR FUNDUS IMAGES. Retina, 2012, 32, 1629-1635.	1.0	16
157	Three-Dimensional Segmentation of Fluid-Associated Abnormalities in Retinal OCT: Probability Constrained Graph-Search-Graph-Cut. IEEE Transactions on Medical Imaging, 2012, 31, 1521-1531.	5.4	169
158	Multimodal Retinal Vessel Segmentation From Spectral-Domain Optical Coherence Tomography and Fundus Photography. IEEE Transactions on Medical Imaging, 2012, 31, 1900-1911.	5.4	43
159	Weakly supervised classification of medical images. , 2012, , .		15
160	A multiple-instance learning framework for diabetic retinopathy screening. Medical Image Analysis, 2012, 16, 1228-1240.	7.0	77
161	Incorporation of texture-based features in optimal graph-theoretic approach with application to the 3D segmentation of intraretinal surfaces in SD-OCT volumes. , 2012, , .		7
162	2-D Pattern of Nerve Fiber Bundles in Glaucoma Emerging from Spectral-Domain Optical Coherence Tomography. , 2012, 53, 483.		20

#	Article	IF	Citations
163	Contextual computer-aided detection: Improving bright lesion detection in retinal images and coronary calcification identification in CT scans. Medical Image Analysis, 2012, 16, 50-62.	7.0	41
164	Retinal Vessel Width Measurement at Branchings Using an Improved Electric Field Theory-Based Graph Approach. PLoS ONE, 2012, 7, e49668.	1.1	5
165	OCT image alignment using diffusion maps. Proceedings of SPIE, 2012, , .	0.8	1
166	Fouille dâ€™images multi-instance et multi-rÃ©solution appliquÃ©e au dÃ©pistage de la rÃ©tinopathie diabÃ©tique. Irbm, 2011, 32, 342-350.	3.7	1
167	Comparison of classifier performance for information fusion in automated Diabetic Retinopathy screening. , 2011, , .		1
168	Splat feature classification: Detection of the presence of large retinal hemorrhages. , 2011, , .		23
169	Automated method for the identification and analysis of vascular tree structures in retinal vessel network. Proceedings of SPIE, 2011, , .	0.8	12
170	Automated 3-D method for the correction of axial artifacts in spectral-domain optical coherence tomography images. Biomedical Optics Express, 2011, 2, 2403.	1.5	67
171	Utility of meibography in the evaluation of meibomian glands morphology in normal and diseased eyelids. Saudi Journal of Ophthalmology, 2011, 25, 61-66.	0.3	39
172	Robust Multiscale Stereo Matching from Fundus Images with Radiometric Differences. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2011, 33, 2245-2258.	9.7	34
173	Computational Quantification of Complex Fundus Phenotypes in Age-Related Macular Degeneration and Stargardt Disease. , 2011, 52, 2976.		14
174	Automated Discovery and Quantification of Image-Based Complex Phenotypes: A Twin Study of Drusen Phenotypes in Age-Related Macular Degeneration. , 2011, 52, 9195.		7
175	INTRAVITREAL BEVACIZUMAB FOR TREATMENT OF PROLIFERATIVE AND NONPROLIFERATIVE TYPE 2 IDIOPATHIC MACULAR TELANGIECTASIA. Retina, 2011, 31, 1848-1855.	1.0	47
176	INTRAOPERATIVE CHOROIDAL DETACHMENT DURING 23-GAUGE VITRECTOMY. Retina, 2011, 31, 893-901.	1.0	27
177	BILATERAL INTRAVITREAL INJECTION OF ANTIVASCULAR ENDOTHELIAL GROWTH FACTOR THERAPY. Retina, 2011, 31, 31-35.	1.0	30
178	Sutureless Triplanar Sclerotomy for 23-Gauge Vitrectomy. JAMA Ophthalmology, 2011, 129, 585.	2.6	8
179	On Combining Computer-Aided Detection Systems. IEEE Transactions on Medical Imaging, 2011, 30, 215-223.	5.4	103
180	Optimal Filter Framework for Automated, Instantaneous Detection of Lesions in Retinal Images. IEEE Transactions on Medical Imaging, 2011, 30, 523-533.	5.4	97

#	ARTICLE	IF	CITATIONS
181	Vessel Boundary Delineation on Fundus Images Using Graph-Based Approach. IEEE Transactions on Medical Imaging, 2011, 30, 1184-1191.	5.4	93
182	Automated Measurement of the Arteriolar-to-Venular Width Ratio in Digital Color Fundus Photographs. IEEE Transactions on Medical Imaging, 2011, 30, 1941-1950.	5.4	153
183	Association of visual function and ganglion cell layer thickness in patients with diabetes mellitus type 1 and no or minimal diabetic retinopathy. Vision Research, 2011, 51, 224-228.	0.7	110
184	Independent component analysis using prior information for signal detection in a functional imaging system of the retina. Medical Image Analysis, 2011, 15, 35-44.	7.0	12
185	Retinal vessel width measurements based on a graph-theoretic method. , 2011, , .		10
186	Telehealth Practice Recommendations for Diabetic Retinopathy, Second Edition. Telemedicine Journal and E-Health, 2011, 17, 814-837.	1.6	99
187	Identification and reconnection of interrupted vessels in retinal vessel segmentation. , 2011, , .		13
188	Simultaneous automatic detection of optic disc and fovea on fundus photographs. , 2011, , .		4
189	Automated segmentation of intraretinal layers from spectral-domain macular OCT: reproducibility of layer thickness measurements. Proceedings of SPIE, 2011, , .	0.8	3
190	Automatic localization of bifurcations and vessel crossings in digital fundus photographs using location regression. Proceedings of SPIE, 2011, , .	0.8	1
191	Automated multimodality concurrent classification for segmenting vessels in 3D spectral OCT and color fundus images. Proceedings of SPIE, 2011, , .	0.8	3
192	Evaluation of a Computer-Aided Diagnosis System for Diabetic Retinopathy Screening on Public Data. , 2011, 52, 4866.		101
193	3D reconstruction of the optic nerve head using stereo fundus images for computer-aided diagnosis of glaucoma. , 2010, , .		8
194	Use of a twin dataset to identify AMD-related visual patterns controlled by genetic factors. Proceedings of SPIE, 2010, , .	0.8	0
195	Segmentation of the Optic Disc in 3-D OCT Scans of the Optic Nerve Head. IEEE Transactions on Medical Imaging, 2010, 29, 159-168.	5.4	144
196	Retinopathy Online Challenge: Automatic Detection of Microaneurysms in Digital Color Fundus Photographs. IEEE Transactions on Medical Imaging, 2010, 29, 185-195.	5.4	414
197	Multiscale AM-FM Methods for Diabetic Retinopathy Lesion Detection. IEEE Transactions on Medical Imaging, 2010, 29, 502-512.	5.4	220
198	Three-Dimensional Analysis of Retinal Layer Texture: Identification of Fluid-Filled Regions in SD-OCT of the Macula. IEEE Transactions on Medical Imaging, 2010, 29, 1321-1330.	5.4	186

#	Article	IF	Citations
199	Objective and expert-independent validation of retinal image registration algorithms by a projective imaging distortion model. Medical Image Analysis, 2010, 14, 539-549.	7.0	22
200	Automated Segmentation of Neural Canal Opening and Optic Cup in 3D Spectral Optical Coherence Tomography Volumes of the Optic Nerve Head. , 2010, 51, 5708.		79
201	Automatic determination of the artery vein ratio in retinal images. Proceedings of SPIE, 2010, , .	0.8	7
202	Automated measurement of retinal blood vessel tortuosity. Proceedings of SPIE, 2010, , .	0.8	13
203	3-D segmentation of retinal blood vessels in spectral-domain OCT volumes of the optic nerve head. Proceedings of SPIE, 2010, , .	0.8	14
204	Retinal atlas statistics from color fundus images. Proceedings of SPIE, 2010, , .	0.8	9
205	Automated Quantification of Inherited Phenotypes from Color Images: A Twin Study of the Variability of Optic Nerve Head Shape. , 2010, 51, 5870.		8
206	Automated detection of diabetic retinopathy: barriers to translation into clinical practice. Expert Review of Medical Devices, 2010, 7, 287-296.	1.4	60
207	Automated 3D segmentation of intraretinal layers from optic nerve head optical coherence tomography images. Proceedings of SPIE, 2010, , .	0.8	20
208	Retinal Imaging and Image Analysis. IEEE Reviews in Biomedical Engineering, 2010, 3, 169-208.	13.1	1,021
209	Retinal arterial but not venous tortuosity correlates with facioscapulohumeral muscular dystrophy severity. Journal of AAPOS, 2010, 14, 240-243.	0.2	28
210	Effects of Vitrectomy on Age-Related Macular Degeneration. Ophthalmology, 2010, 117, 1381-1386.	2.5	35
211	Automated Early Detection of Diabetic Retinopathy. Ophthalmology, 2010, 117, 1147-1154.	2.5	221
212	Decreased Retinal Ganglion Cell Layer Thickness in Patients with Type 1 Diabetes. , 2010, 51, 3660.		294
213	Improving hard exudate detection in retinal images through a combination of local and contextual information. , 2010, , .		20
214	Automated Segmentation of 3-D Spectral OCT Retinal Blood Vessels by Neural Canal Opening False Positive Suppression. Lecture Notes in Computer Science, 2010, 13, 33-40.	1.0	18
215	Active Learning for an Efficient Training Strategy of Computer-Aided Diagnosis Systems: Application to Diabetic Retinopathy Screening. Lecture Notes in Computer Science, 2010, 13, 603-610.	1.0	12
216	Stimulus-Evoked Intrinsic Optical Signals in the Retina: Spatial and Temporal Characteristics. , 2009, 50, 4865.		32

#	Article	IF	Citations
217	Practical considerations for optic nerve location in telemedicine. , 2009, 2009, 6205-9.		5
218	A linking framework for pixel classification based retinal vessel segmentation. Proceedings of SPIE, 2009, , .	0.8	7
219	3-D segmentation of the rim and cup in spectral-domain optical coherence tomography volumes of the optic nerve head. Proceedings of SPIE, 2009, , .	0.8	12
220	Automated segmentation of the optic disc margin in 3-D optical coherence tomography images using a graph-theoretic approach. Proceedings of SPIE, 2009, , .	0.8	18
221	Automatic classification of retinal vessels into arteries and veins. Proceedings of SPIE, 2009, , .	0.8	46
222	Registration of 3D spectral OCT volumes using 3D SIFT feature point matching. Proceedings of SPIE, 2009, , .	0.8	29
223	Automated Segmentation of the Cup and Rim from Spectral Domain OCT of the Optic Nerve Head. , 2009, 50, 5778.		82
224	Stimulus-Evoked Intrinsic Optical Signals in the Retina: Pharmacologic Dissection Reveals Outer Retinal Origins. , 2009, 50, 4873.		21
225	Selective Loss of Inner Retinal Layer Thickness in Type 1 Diabetic Patients with Minimal Diabetic Retinopathy. , 2009, 50, 3404.		304
226	Active learning approach for detection of hard exudates, cotton wool spots, and drusen in retinal images. , 2009, , .		5
227	Information Fusion for Diabetic Retinopathy CAD in Digital Color Fundus Photographs. IEEE Transactions on Medical Imaging, 2009, 28, 775-785.	5.4	105
228	Automated 3-D Intraretinal Layer Segmentation of Macular Spectral-Domain Optical Coherence Tomography Images. IEEE Transactions on Medical Imaging, 2009, 28, 1436-1447.	5.4	535
229	Noninvasive functional imaging of the retina reveals outer retinal and hemodynamic intrinsic optical signal origins. Japanese Journal of Ophthalmology, 2009, 53, 334-344.	0.9	18
230	Fast detection of the optic disc and fovea in color fundus photographs. Medical Image Analysis, 2009, 13, 859-870.	7.0	188
231	Multi-scale AM-FM for lesion phenotyping on age-related macular degeneration. , 2009, , .		23
232	Vision-based, real-time retinal image quality assessment. , 2009, , .		37
233	Variance Owing to Observer, Repeat Imaging, and Fundus Camera Type on Cup-to-disc Ratio Estimates by Stereo Planimetry. Journal of Glaucoma, 2009, 18, 305-310.	0.8	21
234	Detecting Retinal Pathology Automatically with Special Emphasis on Diabetic Retinopathy. , 2009, , .		4

#	ARTICLE	IF	CITATIONS
235	Evaluation of a System for Automatic Detection of Diabetic Retinopathy From Color Fundus Photographs in a Large Population of Patients With Diabetes. Diabetes Care, 2008, 31, 193-198.	4.3	243
236	Intraretinal Layer Segmentation of Macular Optical Coherence Tomography Images Using Optimal 3-D Graph Search. IEEE Transactions on Medical Imaging, 2008, 27, 1495-1505.	5.4	300
237	Adoption and Perceptions of Electronic Health Record Systems by Ophthalmologists: An American Academy of Ophthalmology Survey. Ophthalmology, 2008, 115, 1591-1597.e5.	2.5	71
238	Re-engineering the Resident Applicant Selection Process in Ophthalmology: A Literature Review and Recommendations for Improvement. Survey of Ophthalmology, 2008, 53, 164-176.	1.7	68
239	Independent Component Analysis for Vision-inspired Classification of Retinal Images with Age-related Macular Degeneration. , 2008, , .		8
240	Detection and phenotyping of retinal disease using AM-FM processing for feature extraction. , 2008, , .		6
241	Evaluation of a System for Automatic Detection of Diabetic Retinopathy From Color Fundus Photographs in a Large Population of Patients With Diabetes. Diabetes Care, 2008, 31, e64-e64.	4.3	57
242	Vessel segmentation in 3D spectral OCT scans of the retina. , 2008, , .		46
243	Retinal image mosaicing using the radial distortion correction model. , 2008, , .		9
244	Using a patient image archive to diagnose retinopathy. , 2008, 2008, 5441-4.		19
245	Teaching and Assessing Competency in Retinal Lasers in Ophthalmology Residency. Ophthalmic Surgery Lasers and Imaging Retina, 2008, 39, 270-280.	0.4	9
246	Teaching and assessing competency in retinal lasers in ophthalmology residency. Ophthalmic Surgery, Lasers and Imaging, 2008, 39, 270-80.	0.5	2
247	Automated Detection and Differentiation of Drusen, Exudates, and Cotton-Wool Spots in Digital Color Fundus Photographs for Diabetic Retinopathy Diagnosis. , 2007, 48, 2260.		328
248	Validation of Retinal Image Registration Algorithms by a Projective Imaging Distortion Model. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 6472-5.	0.5	12
249	Automated segmentation of intraretinal layers from macular optical coherence tomography images. , 2007, 6512, 385.		26
250	Automated Segmentation of the Optic Disc from Stereo Color Photographs Using Physiologically Plausible Features. , 2007, 48, 1665.		275
251	Feature-based pairwise retinal image registration by radial distortion correction. , 2007, , .		10
252	A device for training and computer-assisted application of panretinal photocoagulation. , 2007, , .		1

#	Article	IF	Citations
253	Independent component analysis for the detection of in-vivo intrinsic signals from an optical imager of retinal function. , 2007, , .		1
254	Segmentation of the optic nerve head combining pixel classification and graph search. , 2007, , .		14
255	Identification of spectral phenotypes in age-related macular degeneration patients. , 2007, , .		5
256	Teaching and Assessing Professionalism in Ophthalmology Residency Training Programs. Survey of Ophthalmology, 2007, 52, 300-314.	1.7	47
257	Teaching and Assessing Systems-based Competency in Ophthalmology Residency Training Programs. Survey of Ophthalmology, 2007, 52, 680-689.	1.7	19
258	Assessing Cataract Surgical Competency. Ophthalmology, 2007, 114, 1415-1416.	2.5	5
259	The Iowa Ophthalmology Wet Laboratory Curriculum for Teaching and Assessing Cataract Surgical Competency. Ophthalmology, 2007, 114, e21-e26.	2.5	76
260	Spatiotemporal Independent Component Analysis for the Detection of Functional Responses in Cat Retinal Images. IEEE Transactions on Medical Imaging, 2007, 26, 1035-1045.	5.4	11
261	Segmentation of the Optic Disc, Macula and Vascular Arch in Fundus Photographs. IEEE Transactions on Medical Imaging, 2007, 26, 116-127.	5.4	192
262	Incorporation of Regional Information in Optimal 3-D Graph Search with Application for Intraretinal Layer Segmentation of Optical Coherence Tomography Images. Lecture Notes in Computer Science, 2007, 20, 607-618.	1.0	33
263	Use of Varying Constraints in Optimal 3-D Graph Search for Segmentation of Macular Optical Coherence Tomography Images. , 2007, 10, 244-251.		15
264	The automatic detection of the optic disc location in retinal images using optic disc location regression. , 2006, 2006, 4432-5.		49
265	Visual Stimulusâ€"Induced Changes in Human Near-Infrared Fundus Reflectance. , 2006, 47, 715.		86
266	Detection of low-amplitude in vivo intrinsic signals from an optical imager of retinal function. , 2006, , .		8
267	Image structure clustering for image quality verification of color retina images in diabetic retinopathy screening. Medical Image Analysis, 2006, 10, 888-898.	7.0	128
268	A Training System for Photodynamic Therapy using Modeling and Simulation. , 2006, , .		0
269	Spatiotemporal Independent Component Analysis for Retinal Images. , 2006, , .		0
270	Segmentation of the Surfaces of the Retinal Layer from OCT Images. Lecture Notes in Computer Science, 2006, 9, 800-807.	1.0	22

#	Article	IF	Citations
271	Optimal segmentation of the optic nerve head from stereo retinal images. , 2006, , .		19
272	New Concepts in Orbital Imaging. , 2005, , 104-112.		0
273	Robust automatic optic disk segmentation. , 2005, , .		0
274	Discovering biostructure constraints using VRML visualization. , 2005, , .		0
275	Web-Based Screening for Diabetic Retinopathy in a Primary Care Population: The EyeCheck Project. Telemedicine Journal and E-Health, 2005, 11, 668-674.	1.6	110
276	Automatic detection of red lesions in digital color fundus photographs. IEEE Transactions on Medical Imaging, 2005, 24, 584-592.	5.4	422
277	Automatic detection of the optic disc, fovea and vacular arch in digital color photographs of the retina. , 2005, , .		9
278	Comparative study of retinal vessel segmentation methods on a new publicly available database. , 2004, 5370, 648.		496
279	Ridge-Based Vessel Segmentation in Color Images of the Retina. IEEE Transactions on Medical Imaging, 2004, 23, 501-509.	5.4	2,914
280	Multiple Cranial Mononeuropathies With Acetylcholine Receptor Antibody in Mitochondrial Diabetes. Diabetes Care, 2003, 26, 1318-1318.	4.3	5
281	Photography or Ophthalmoscopy for Detection of Diabetic Retinopathy?. Diabetes Care, 2003, 26, 1318-1319.	4.3	8
282	Computation and visualization of three-dimensional soft tissue motion in the orbit. IEEE Transactions on Medical Imaging, 2002, 21, 296-304.	5.4	61
283	Rectus extraocular muscle paths and decompression surgery for Graves orbitopathy: mechanism of motility disturbances. Investigative Ophthalmology and Visual Science, 2002, 43, 300-7.	3.3	41
284	Objective quantification of the motion of soft tissues in the orbit. IEEE Transactions on Medical Imaging, 2000, 19, 986-995.	5.4	29
285	Classifying convex sets for vessel detection in retinal images. , 0, , .		2