Hrvoje BogunoviÄ

List of Publications by Year
in descending order

82 papers	4,217 citations	201385 27 h-index	133063 59 g-index
85 all docs	85 docs citations	85 times ranked	4290 citing authors

#	Article	IF	Citations
1	Artificial intelligence in retina. Progress in Retinal and Eye Research, 2018, 67, 1-29.	7.3	469
2	Fully Automated Detection and Quantification of Macular Fluid in OCT Using Deep Learning. Ophthalmology, 2018, 125, 549-558.	2.5	384
3	REFUGEÂChallenge: A unified framework for evaluating automatedÂmethods for glaucomaÂassessment from fundus photographs. Medical Image Analysis, 2020, 59, 101570.	7.0	354
4	Standardized evaluation methodology and reference database for evaluating coronary artery centerline extraction algorithms. Medical Image Analysis, 2009, 13, 701-714.	7.0	295
5	Why rankings of biomedical image analysis competitions should be interpreted with care. Nature Communications, 2018, 9, 5217.	5.8	198
6	Prediction of Individual Disease Conversion in Early AMD Using Artificial Intelligence. , 2018, 59, 3199.		144
7	Machine Learning to Analyze the Prognostic Value of Current Imaging Biomarkers in Neovascular Age-Related Macular Degeneration. Ophthalmology Retina, 2018, 2, 24-30.	1.2	143
8	RETOUCH: The Retinal OCT Fluid Detection and Segmentation Benchmark and Challenge. IEEE Transactions on Medical Imaging, 2019, 38, 1858-1874.	5.4	139
9	Prediction of Anti-VEGF Treatment Requirements in Neovascular AMD Using a Machine Learning Approach. , 2017, 58, 3240.		128
10	A view of the current and future role of optical coherence tomography in the management of age-related macular degeneration. Eye, 2017, 31, 26-44.	1.1	113
11	Characterization of Drusen and Hyperreflective Foci as Biomarkers for Disease Progression in Age-Related Macular Degeneration Using Artificial Intelligence in Optical Coherence Tomography. JAMA Ophthalmology, 2020, 138, 740.	1.4	99
12	Application of Automated Quantification of Fluid Volumes to Antiâ€“VEGF Therapy of Neovascular Age-Related Macular Degeneration. Ophthalmology, 2020, 127, 1211-1219.	2.5	89
13	Exploiting Epistemic Uncertainty of Anatomy Segmentation for Anomaly Detection in Retinal OCT. IEEE Transactions on Medical Imaging, 2020, 39, 87-98.	5.4	88
14	Machine Learning of the Progression of Intermediate Age-Related Macular Degeneration Based on OCT Imaging. , 2017, 58, BIO141.		87
15	Joint retinal layer and fluid segmentation in OCT scans of eyes with severe macular edema using unsupervised representation and auto-context. Biomedical Optics Express, 2017, 8, 1874.	1.5	82
16	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
17	Automated segmentation of cerebral vasculature with aneurysms in 3DRA and TOFâ€MRA using geodesic active regions: An evaluation study. Medical Physics, 2011, 38, 210-222.	1.6	67
18	Unsupervised Identification of Disease Marker Candidates in Retinal OCT Imaging Data. IEEE Transactions on Medical Imaging, 2019, 38, 1037-1047.	5.4	67

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19	Patient-Specific Computational Hemodynamics of Intracranial Aneurysms from 3D Rotational Angiography and CT Angiography: An In Vivo Reproducibility Study. American Journal of Neuroradiology, 2011, 32, 581-586.	1.2	56
20	Anatomical Labeling of the Circle of Willis Using Maximum A Posteriori Probability Estimation. IEEE Transactions on Medical Imaging, 2013, 32, 1587-1599.	5.4	55
21	Quantification of Fluid Resolution and Visual Acuity Gain in Patients With Diabetic Macular Edema Using Deep Learning. JAMA Ophthalmology, 2020, 138, 945.	1.4	49
22	Role of Deep Learningâ€“Quantified Hyperreflective Foci for the Prediction of Geographic Atrophy Progression. American Journal of Ophthalmology, 2020, 216, 257-270.	1.7	48
23	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
24	Computational image analysis for prognosis determination in DME. Vision Research, 2017, 139, 204-210.	0.7	42
25	Reducing image variability across OCT devices with unsupervised unpaired learning for improved segmentation of retina. Biomedical Optics Express, 2020, 11, 346.	1.5	36
26	AGE challenge: Angle Closure Glaucoma Evaluation in Anterior Segment Optical Coherence Tomography. Medical Image Analysis, 2020, 66, 101798.	7.0	35
27	End-to-End Deep Learning Model for Predicting Treatment Requirements in Neovascular AMD From Longitudinal Retinal OCT Imaging. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 3456-3465.	3.9	35
28	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
29	U2-Net: A Bayesian U-Net Model With Epistemic Uncertainty Feedback For Photoreceptor Layer Segmentation In Pathological OCT Scans. , 2019, , .		34
30	Automated landmarking and geometric characterization of the carotid siphon. Medical Image Analysis, 2012, 16, 889-903.	7.0	32
31	ANALYSIS OF FLUID VOLUME AND ITS IMPACT ON VISUAL ACUITY IN THE FLUID STUDY AS QUANTIFIED WITH DEEP LEARNING. Retina, 2021, 41, 1318-1328.	1.0	32
32	Spatial Correspondence Between Intraretinal Fluid, Subretinal Fluid, and Pigment Epithelial Detachment in Neovascular Age-Related Macular Degeneration. , 2017, 58, 4039.		30
33	AI-based monitoring of retinal fluid in disease activity and under therapy. Progress in Retinal and Eye Research, 2022, 86, 100972.	7.3	30
34	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
35	Face image validation system. Proc Int Symp Image Signal Process Anal, 2005, , .	0.0	27
36	Automated quantification of macular fluid in retinal diseases and their response to anti-VEGF therapy. British Journal of Ophthalmology, 2022, 106, 113-120.	2.1	27

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37	The Effect of Pegcetacoplan Treatment on Photoreceptor Maintenance in Geographic Atrophy Monitored by Artificial Intelligenceâ€“Based OCT Analysis. Ophthalmology Retina, 2022, 6, 1009-1018.	1.2	27
38	Automatic Aneurysm Neck Detection Using Surface Voronoi Diagrams. IEEE Transactions on Medical Imaging, 2011, 30, 1863-1876.	5.4	25
39	AngioLabâ€”A software tool for morphological analysis and endovascular treatment planning of intracranial aneurysms. Computer Methods and Programs in Biomedicine, 2012, 108, 806-819.	2.6	24
40	Predicting Progression of Age-Related Macular Degeneration Using OCT and Fundus Photography. Ophthalmology Retina, 2021, 5, 118-125.	1.2	24
41	Topographic Distribution and Progression of Soft Drusen Volume in Age-Related Macular Degeneration Implicate Neurobiology of Fovea. , 2021, 62, 26.		23
42	Supervised learning and dimension reduction techniques for quantification of retinal fluid in optical coherence tomography images. Eye, 2017, 31, 1212-1220.	1.1	22
43	Unbiased identification of novel subclinical imaging biomarkers using unsupervised deep learning. Scientific Reports, 2020, 10, 12954.	1.6	22
44	Automated Quantification of Photoreceptor alteration in macular disease using Optical Coherence Tomography and Deep Learning. Scientific Reports, 2020, 10, 5619.	1.6	21
45	Impact of Drusen Volume on Quantitative Fundus Autofluorescence in Early and Intermediate Age-Related Macular Degeneration. , 2019, 60, 1937.		20
46	Toward integrated management of cerebral aneurysms. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 2961-2982.	1.6	18
47	Evaluating the impact of vitreomacular adhesion on anti-VEGF therapy for retinal vein occlusion using machine learning. Scientific Reports, 2017, 7, 2928.	1.6	18
48	IMPACT OF RESIDUAL SUBRETINAL FLUID VOLUMES ON TREATMENT OUTCOMES IN A SUBRETINAL FLUIDâ€“TOLERANT TREAT-AND-EXTEND REGIMEN. Retina, 2021, 41, 2221-2228.	1.0	17
49	Automated Segmentability Index for Layer Segmentation of Macular SD-OCT Images. Translational Vision Science and Technology, 2016, 5, 14.	1.1	15
50	Identification and quantification of fibrotic areas in the human retina using polarization-sensitive OCT. Biomedical Optics Express, 2021, 12, 4380.	1.5	15
51	Impact of Intra- and Subretinal Fluid on Vision Based on Volume Quantification in the HARBOR Trial. Ophthalmology Retina, 2022, 6, 291-297.	1.2	14
52	Therapeutic response in the HAWK and HARRIER trials using deep learning in retinal fluid volume and compartment analysis. Eye, 2023, 37, 1160-1169.	1.1	14
53	Using Cyclegans for Effectively Reducing Image Variability Across OCT Devices and Improving Retinal Fluid Segmentation. , 2019, , .		13
54	Neuroretinal atrophy following resolution of macular oedema in retinal vein occlusion. British Journal of Ophthalmology, 2019, 103, 36-42.	2.1	13

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55	Spatio-temporal alterations in retinal and choroidal layers in the progression of age-related macular degeneration (AMD) in optical coherence tomography. Scientific Reports, 2021, 11, 5743.	1.6	13
56	Fundus autofluorescence and optical coherence tomography biomarkers associated with the progression of geographic atrophy secondary to age-related macular degeneration. Eye, 2021, , .	1.1	13
57	Image intensity standardization in 3D rotational angiography and its application to vascular segmentation. , 2008, , .		12
58	MORPHOLOGICAL AND FUNCTIONAL CHARACTERISTICS AT THE ONSET OF EXUDATIVE CONVERSION IN AGE-RELATED MACULAR DEGENERATION. Retina, 2020, 40, 1070-1078.	1.0	11
59	How to Exploit Weaknesses in Biomedical Challenge Design and Organization. Lecture Notes in Computer Science, 2018, , 388-395.	1.0	10
60	SYSTEMATIC CORRELATION OF CENTRAL SUBFIELD THICKNESS WITH RETINAL FLUID VOLUMES QUANTIFIED BY DEEP LEARNING IN THE MAJOR EXUDATIVE MACULAR DISEASES. Retina, 2022, 42, 831-841.	1.0	10
61	Developing and validating a multivariable prediction model which predicts progression of intermediate to late age-related macular degenerationâ€"the PINNACLE trial protocol. Eye, 2023, 37, 1275-1283.	1.1	9
62	Modeling Disease Progression in Retinal OCTs with Longitudinal Self-supervised Learning. Lecture Notes in Computer Science, 2019, , 44-52.	1.0	8
63	Reproducibility of image-based computational hemodynamics in intracranial aneurysms: Comparison of CTA AND 3DRA. , 2009, , .		7
64	Anatomical Labeling of the Anterior Circulation of the Circle of Willis Using Maximum a Posteriori Classification. Lecture Notes in Computer Science, 2011, 14, 330-337.	1.0	7
65	Linking Function and Structure with ReSensNet. Ophthalmology Retina, 2022, 6, 501-511.	1.2	7
66	Estimating perfusion using X-ray angiography. Proc Int Symp Image Signal Process Anal, 2005, , .	0.0	6
67	Projective Skip-Connections for Segmentation Along a Subset of Dimensions in Retinal OCT. Lecture Notes in Computer Science, 2021, , 431-441.	1.0	6
68	3D Modeling of Coronary Artery Bifurcations from CTA and Conventional Coronary Angiography. Lecture Notes in Computer Science, 2011, 14, 395-402.	1.0	6
69	Fast 3D centerline computation for tubular structures by front collapsing and fast marching. , 2010, , .		5
70	Automatic identification of internal carotid artery from 3DRA images. , 2010, 2010, 5343-6.		5
71	Deep Learning Prediction Of Age And Sex From Optical Coherence Tomography. , 2021, , .		5
72	Personalized treatment supported by automated quantitative fluid analysis in active neovascular age-related macular degeneration (nAMD)â€"a phase III, prospective, multicentre, randomized study: design and methods. Eye, 2023, 37, 1464-1469.	1.1	5

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73	AngioLab: Integrated technology for patient-specific management of intracranial aneurysms. , 2010, 2010, 6801-4.		4
74	Impact of B-Scan Averaging on Spectralis Optical Coherence Tomography Image Quality before and after Cataract Surgery. Journal of Ophthalmology, 2017, 2017, 1-8.	0.6	4
75	The Structure of the Pyramidia E-learning Tool - the Programmer's Point of View. , 2007, , .		3
76	An electronic journal management system. , 0, , .		2
77	Deep Learningâ€“Based Automated Optical Coherence Tomography Segmentation in Clinical Routine. JAMA Ophthalmology, 2021, 139, 973.	1.4	2
78	Cerebral Aneurysms: A Patient-Specific and Image-Based Management Pipeline. Computational Methods in Applied Sciences (Springer), 2011, , 327-349.	0.1	2
79	Denoising of Time-Density Data in Digital Subtraction Angiography. Lecture Notes in Computer Science, 2005, , 1157-1166.	1.0	1
80	OCT fluid detection and quantification. , 2019, , 273-298.		1
81	Predicting Drusen Regression from OCT in Patients with Age-Related Macular Degeneration. , 0, , .		1
82	Artificial Intelligence in Retinal Vascular Imaging. Retina Atlas, 2020, , 133-145.	0.0	1