Marcos Ortega Hortas

List of Publications by Year
in descending order

150 papers	1,562 citations	361045 20 h-index	395343 33 g-index
159 all docs	159 docs citations	159 times ranked	1248 citing authors

#	Article	IF	Citations
1	Feature definition and comprehensive analysis on the robust identification of intraretinal cystoid regions using optical coherence tomography images. Pattern Analysis and Applications, 2022, 25, 1-15.	3.1	3
2	Retinal microaneurysms detection using adversarial pre-training with unlabeled multimodal images. Information Fusion, 2022, 79, 146-161.	11.7	17
3	Fully automatic deep convolutional approaches for the analysis of COVID-19 using chest X-ray images. Applied Soft Computing Journal, 2022, 115, 108190.	4.1	36
4	End-to-end multi-task learning for simultaneous optic disc and cup segmentation and glaucoma classification in eye fundus images. Applied Soft Computing Journal, 2022, 116, 108347.	4.1	21
5	Multimodal image encoding pre-training for diabetic retinopathy grading. Computers in Biology and Medicine, 2022, 143, 105302.	3.9	7
6	Does imbalance in chest X-ray datasets produce biased deep learning approaches for COVID-19 screening?. BMC Medical Research Methodology, 2022, 22, 125.	1.4	4
7	Fully-Automatic 3D Intuitive Visualization of Age-Related Macular Degeneration Fluid Accumulations in OCT Cubes. Journal of Digital Imaging, 2022, 35, 1271-1282.	1.6	3
8	End-to-end multi-task learning approaches for the joint epiretinal membrane segmentation and screening in OCT images. Computerized Medical Imaging and Graphics, 2022, 98, 102068.	3.5	10
9	Pulmonary-Restricted COVID-19 Informative Visual Screening Using Chest X-ray Images from Portable Devices. Lecture Notes in Computer Science, 2022, , 65-76.	1.0	1
10	High/Low Quality Style Transfer for Mutual Conversion of OCT Images Using Contrastive Unpaired Translation Generative Adversarial Networks. Lecture Notes in Computer Science, 2022, , 210-220.	1.0	1
11	Fully Automatic Epiretinal Membrane Segmentation in OCT Scans Using Convolutional Networks. Advances in Medical Diagnosis, Treatment, and Care, 2022, , 88-121.	0.1	0
12	Generation of Novel Synthetic Portable Chest X-Ray Images for Automatic COVID-19 Screening. Advances in Medical Diagnosis, Treatment, and Care, 2022, , 248-281.	0.1	0
13	Multimodal reconstruction of retinal images over unpaired datasets using cyclical generative adversarial networks. , 2021, , 347-376.		0
14	Automatic Segmentation and Intuitive Visualisation of the Epiretinal Membrane in 3D OCT Images Using Deep Convolutional Approaches. IEEE Access, 2021, 9, 75993-76004.	2.6	12
15	Automated Segmentation of the Central Serous Chorioretinopathy fluid regions using Optical Coherence Tomography Scans. , 2021, , .		2
16	Comparative and Behavioural Analysis of a Diffuse Paradigm for the Evaluation of Diabetic Macular Edema in OCT images. , 2021, , .		1
17	Cycle Generative Adversarial Network Approaches to Produce Novel Portable Chest X-Rays Images for Covid-19 Diagnosis. , 2021, , .		15
18	Automatic Segmentation and Estimation of Ischemic Regions in Oct Angiography Scans. , 2021, , .		0

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19	Robust multimodal registration of fluorescein angiography and optical coherence tomography angiography images using evolutionary algorithms. Computers in Biology and Medicine, 2021, 134, 104529.	3.9	6
20	Context encoder self-supervised approaches for eye fundus analysis. , 2021, , .		1
21	Multi-stage transfer learning for lung segmentation using portable X-ray devices for patients with COVID-19. Expert Systems With Applications, 2021, 173, 114677.	4.4	44
22	Computational Radiological Screening of Patients with COVID-19 Using Chest X-ray Images from Portable Devices. Engineering Proceedings, 2021, 7, 1.	0.4	0
23	Automatic Segmentation and Visualisation of the Epirretinal Membrane in OCT Scans Using Densely Connected Convolutional Networks. Engineering Proceedings, 2021, 7, .	0.4	0
24	Data augmentation approaches using cycle-consistent adversarial networks for improving COVID-19 screening in portable chest X-ray images. Expert Systems With Applications, 2021, 185, 115681.	4.4	32
25	Self-supervised multimodal reconstruction pre-training for retinal computer-aided diagnosis. Expert Systems With Applications, 2021, 185, 115598.	4.4	7
26	COVID-19 Lung Radiography Segmentation by Means of Multiphase Transfer Learning. Engineering Proceedings, 2021, 7, .	0.4	0
27	Portable Chest X-ray Synthetic Image Generation for the COVID-19 Screening. Engineering Proceedings, 2021, 7, 6.	0.4	2
28	Deep multi-instance heatmap regression for the detection of retinal vessel crossings and bifurcations in eye fundus images. Computer Methods and Programs in Biomedicine, 2020, 186, 105201.	2.6	26
29	Fully Automatic Method for the Visual Acuity Estimation Using OCT Angiographies. Proceedings (mdpi), 2020, 54, 57.	0.2	0
30	A Survey on Artificial Intelligence Techniques for Biomedical Image Analysis in Skeleton-Based Forensic Human Identification. Applied Sciences (Switzerland), 2020, 10, 4703.	1.3	26
31	Diabetic Macular Edema Characterization and Visualization Using Optical Coherence Tomography Images. Applied Sciences (Switzerland), 2020, 10, 7718.	1.3	11
32	Data Extraction in Insurance Photo-Inspections Using Computer Vision. Proceedings (mdpi), 2020, 54, .	0.2	0
33	Joint Optic Disc and Cup Segmentation Using Self-Supervised Multimodal Reconstruction Pre-Training. Proceedings (mdpi), 2020, 54, .	0.2	0
34	Analysis of Separability of COVID-19 and Pneumonia in Chest X-ray Images by Means of Convolutional Neural Networks. Proceedings (mdpi), 2020, 54, 31.	0.2	1
35	Fully Automatic Retinal Vascular Tortuosity Assessment Integrating Domain-Related Information. Proceedings (mdpi), 2020, 54, .	0.2	0
36	Modeling, Localization, and Segmentation of the Foveal Avascular Zone on Retinal OCT-Angiography Images. IEEE Access, 2020, 8, 152223-152238.	2.6	4

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37	Study on Relevant Features in COVID-19 PCR Tests. Proceedings (mdpi), 2020, 54, .	0.2	0
38	Deep Convolutional Approaches for the Analysis of COVID-19 Using Chest X-Ray Images From Portable Devices. IEEE Access, 2020, 8, 195594-195607.	2.6	64
39	Multi-Modal Self-Supervised Pre-Training for Joint Optic Disc and Cup Segmentation in Eye Fundus Images. , 2020, , .		19
40	Fully automated identification and clinical classification of macular edema using optical coherence tomography images. , 2020, , 45-67.		1
41	Joint Diabetic Macular Edema Segmentation and Characterization in OCT Images. Journal of Digital Imaging, 2020, 33, 1335-1351.	1.6	22
42	Intraretinal fluid map generation in optical coherence tomography images. , 2020, , 19-43.		0
43	Learning the retinal anatomy from scarce annotated data using self-supervised multimodal reconstruction. Applied Soft Computing Journal, 2020, 91, 106210.	4.1	19
44	Self-supervised multimodal reconstruction of retinal images over paired datasets. Expert Systems With Applications, 2020, 161, 113674.	4.4	21
45	Intraretinal Fluid Pattern Characterization in Optical Coherence Tomography Images. Sensors, 2020, 20, 2004.	2.1	13
46	Impact of the Circular Region of Interest on the Performance of Multimodal Reconstruction of Retinal Images. Lecture Notes in Computer Science, 2020, , 222-230.	1.0	0
47	Automatic ECG Screening as a Supporting Tool on a Telemedicine Framework. Lecture Notes in Computer Science, 2020, , 289-296.	1.0	0
48	Automatic Identification of Diabetic Macular Edema Biomarkers Using Optical Coherence Tomography Scans. Lecture Notes in Computer Science, 2020, , 247-255.	1.0	1
49	Intuitive and Coherent Intraretinal Cystoid Map Representation in Optical Coherence Tomography Images. Lecture Notes in Computer Science, 2020, , 270-278.	1.0	0
50	Unsupervised Anomaly Map for Image-Based Screening. Lecture Notes in Computer Science, 2020, , 239-246.	1.0	0
51	Heartbeat classification fusing temporal and morphological information of ECGs via ensemble of classifiers. Biomedical Signal Processing and Control, 2019, 47, 41-48.	3.5	200
52	Automatic evaluation of eye gestural reactions to sound in video sequences. Engineering Applications of Artificial Intelligence, 2019, 85, 164-174.	4.3	2
53	Paired and Unpaired Deep Generative Models on Multimodal Retinal Image Reconstruction. Proceedings (mdpi), 2019, 21, 45.	0.2	1
54	Automatic wide field registration and mosaicking of OCTA images using vascularity information. Procedia Computer Science, 2019, 159, 505-513.	1.2	5

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55	Retinal vascular analysis in a fully automated method for the segmentation of DRT edemas using OCT images. Procedia Computer Science, 2019, 159, 600-609.	1.2	1
56	Deep Feature Analysis in a Transfer Learning-based Approach for the Automatic Identification of Diabetic Macular Edema. , 2019, , .		16
57	Self-Supervised Deep Learning for Retinal Vessel Segmentation Using Automatically Generated Labels from Multimodal Data. , 2019, , .		7
58	Intraretinal Fluid Detection by Means of a Densely Connected Convolutional Neural Network Using Optical Coherence Tomography Images. Proceedings (mdpi), 2019, 21, .	0.2	0
59	Automatic Identification of Diabetic Macular Edema Using a Transfer Learning-Based Approach. Proceedings (mdpi), 2019, 21, .	0.2	1
60	Automatic Tool for the Detection, Characterization and Intuitive Visualization of Macular Edema Regions in OCT Images. Proceedings (mdpi), 2019, 21, .	0.2	0
61	A Novel Automatic Method to Estimate Visual Acuity and Analyze the Retinal Vasculature in Retinal Vein Occlusion Using Swept Source Optical Coherence Tomography Angiography. Journal of Clinical Medicine, 2019, 8, 1515.	1.0	10
62	Automatic Retinal Vascularity Identification and Artery/Vein Classification Using Near-Infrared Reflectance Retinographies. Communications in Computer and Information Science, 2019, , 262-278.	0.4	1
63	Artery/Vein Vessel Tree Identification in Near-Infrared Reflectance Retinographies. Journal of Digital Imaging, 2019, 32, 947-962.	1.6	1
64	Robust segmentation of retinal layers in optical coherence tomography images based on a multistage active contour model. Heliyon, 2019, 5, e01271.	1.4	28
65	Automatic segmentation of the foveal avascular zone in ophthalmological OCT-A images. PLoS ONE, 2019, 14, e0212364.	1.1	53
66	Automatic Visual Acuity Estimation by Means of Computational Vascularity Biomarkers Using Oct Angiographies. Sensors, 2019, 19, 4732.	2.1	2
67	Computational assessment of the retinal vascular tortuosity integrating domain-related information. Scientific Reports, 2019, 9, 19940.	1.6	8
68	Deep Multimodal Reconstruction of Retinal Images Using Paired or Unpaired Data. , 2019, , .		5
69	Automatic Identification and Representation of the Cornea–Contact Lens Relationship Using AS-OCT Images. Sensors, 2019, 19, 5087.	2.1	4
70	Automatic Identification and Intuitive Map Representation of the Epiretinal Membrane Presence in 3D OCT Volumes. Sensors, 2019, 19, 5269.	2.1	10
71	Cystoid Fluid Color Map Generation in Optical Coherence Tomography Images Using a Densely Connected Convolutional Neural Network. , 2019, , .		10
72	Automatic identification and characterization of the epiretinal membrane in OCT images. Biomedical Optics Express, 2019, 10, 4018.	1.5	12

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73	Learning Retinal Patterns from Multimodal Images. Proceedings (mdpi), 2018, 2, .	0.2	0
74	Retinal Vasculature Identification and Characterization Using OCT Imaging. , 2018, , .		1
75	Multimodal registration of retinal images using domain-specific landmarks and vessel enhancement. Procedia Computer Science, 2018, 126, 97-104.	1.2	30
76	Automatic Characterization of the Serous Retinal Detachment Associated with the Subretinal Fluid Presence in Optical Coherence Tomography Images. Procedia Computer Science, 2018, 126, 244-253.	1.2	12
77	Automatic extraction of vascularity measurements using OCT-A images. Procedia Computer Science, 2018, 126, 273-281.	1.2	3
78	Multi-expert analysis and validation of objective vascular tortuosity measurements. Procedia Computer Science, 2018, 126, 482-489.	1.2	3
79	Automatic Segmentation of Diffuse Retinal Thickening Edemas Using Optical Coherence Tomography Images. Procedia Computer Science, 2018, 126, 472-481.	1.2	10
80	Retinal vascular tortuosity assessment: inter-intra expert analysis and correlation with computational measurements. BMC Medical Research Methodology, 2018, 18, 144.	1.4	20
81	Hydra, a Computer-Based Platform for Aiding Clinicians in Cardiovascular Analysis and Diagnosis. Journal of Visualized Experiments, 2018, , .	0.2	0
82	Intraretinal fluid identification via enhanced maps using optical coherence tomography images. Biomedical Optics Express, 2018, 9, 4730.	1.5	35
83	Automatic Characterization of Epiretinal Membrane in OCT Images with Supervised Training. Proceedings (mdpi), 2018, 2, 1161.	0.2	0
84	Automatic System for the Identification and Visualization of the Retinal Vessel Tree Using OCT Imaging. Proceedings (mdpi), 2018, 2, .	0.2	0
85	Automatic Segmentation and Measurement of Vascular Biomarkers in OCT-A Images. Proceedings (mdpi), 2018, 2, .	0.2	0
86	Fluid Region Analysis and Identification via Optical Coherence Tomography Image Samples. Proceedings (mdpi), 2018, 2, 1180.	0.2	0
87	Automatic Identification and Segmentation of Diffuse Retinal Thickening Macular Edemas Using OCT Imaging. Proceedings (mdpi), 2018, 2, 1194.	0.2	0
88	Retinal Image Understanding Emerges from Self-Supervised Multimodal Reconstruction. Lecture Notes in Computer Science, 2018, , 321-328.	1.0	18
89	Detection of reactions to sound via gaze and global eye motion analysis using camera streaming. Machine Vision and Applications, 2018, 29, 1069-1082.	1.7	3
90	Automatic macular edema identification and characterization using OCT images. Computer Methods and Programs in Biomedicine, 2018, 163, 47-63.	2.6	39

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91	Interactive Three-Dimensional Visualization System of the Vascular Structure in OCT Retinal Images. Lecture Notes in Computer Science, 2018, , 306-313.	1.0	1
92	Automatic Identification of Macular Edema in Optical Coherence Tomography Images. , 2018, , .		2
93	Enhanced visualization of the retinal vasculature using depth information in OCT. Medical and Biological Engineering and Computing, 2017, 55, 2209-2225.	1.6	25
94	Optical Coherence Tomography Denoising by Means of a Fourier Butterworth Filter-Based Approach. Lecture Notes in Computer Science, 2017, , 422-432.	1.0	4
95	Wivern: a Web-Based System Enabling Computer-Aided Diagnosis and Interdisciplinary Expert Collaboration for Vascular Research. Journal of Medical and Biological Engineering, 2017, 37, 920-935.	1.0	13
96	Feature definition, analysis and selection for cystoid region characterization in Optical Coherence Tomography. Procedia Computer Science, 2017, 112, 1369-1377.	1.2	11
97	Automatic vessel detection by means of brightness profile characterization in OCT images. Procedia Computer Science, 2017, 112, 980-988.	1.2	1
98	Hydra: A web-based system for cardiovascular analysis, diagnosis and treatment. Computer Methods and Programs in Biomedicine, 2017, 139, 61-81.	2.6	27
99	Automatic Identification of Intraretinal Cystoid Regions in Optical Coherence Tomography. Lecture Notes in Computer Science, 2017, , 305-315.	1.0	8
100	Automatic Detection of Blood Vessels in Retinal OCT Images. Lecture Notes in Computer Science, 2017, , 3-10.	1.0	5
101	Feature Definition and Selection for Epiretinal Membrane Characterization in Optical Coherence Tomography Images. Lecture Notes in Computer Science, 2017, , 456-466.	1.0	4
102	Artery/vein Classification of Blood Vessel Tree in Retinal Imaging. , 2017, , .		2
103	3D Retinal Vessel Tree Segmentation and Reconstruction with OCT Images. Lecture Notes in Computer Science, 2016, , 716-726.	1.0	8
104	Vessel Tree Extraction and Depth Estimation with OCT Images. Lecture Notes in Computer Science, 2016, , 23-33.	1.0	3
105	A Methodology for the Analysis of Spontaneous Reactions in Automated Hearing Assessment. IEEE Journal of Biomedical and Health Informatics, 2016, 20, 376-387.	3.9	3
106	â€œWhite Coatâ€•Effect Study as a Subclinical Target Organ Damage by Means of a Web Platform. Smart Innovation, Systems and Technologies, 2016, , 279-287.	0.5	0
107	BRINGING EXPERIENTIAL LEARNING WITH HTML5 AND MATLAB GUIDE ENVIRONMENT: VIRTUAL APPLICATIONS FOR EPO, ESO AND BACCALAUREATE. EDULEARN Proceedings, 2016, , .	0.0	0
108	A VIRTUAL BENCH TO EXPLAIN GEOMETRIC OPTICS USING MATLAB GUIDE ENVIRONMENT. , 2016, , .		0

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109	A web-based framework for anatomical assessment of the retina using OCT. Biosystems Engineering, 2015, 138, 44-58.	1.9	5
110	A Wavefront Marching Method for Solving the Eikonal Equation on Cartesian Grids. , 2015, , .		3
111	A Texture-Based Method for Choroid Segmentation in Retinal EDI-OCT Images. Lecture Notes in Computer Science, 2015, , 487-493.	1.0	3
112	Detection and Characterization of the Sclera - Evaluation of Eye Gestural Reactions to Auditory Stimuli. , 2015, , .		2
113	Influence of the Interest Operators in the Detection of Spontaneous Reactions to the Sound. Lecture Notes in Computer Science, 2015, , 346-361.	1.0	0
114	Automatic Robust Segmentation of Retinal Layers in OCT Images with Refinement Stages. Lecture Notes in Computer Science, 2014, , 337-345.	1.0	3
115	Multiple human tracking system for unpredictable trajectories. Machine Vision and Applications, 2014, 25, 511-527.	1.7	7
116	Unsupervised Trajectory Modelling Using Temporal Information via Minimal Paths. , 2014, , .		17
117	Computer Aided Hearing Assessment: Detection of Eye Gesture Reactions as a Response to the Sound. Lecture Notes in Computer Science, 2014, , 39-47.	1.0	1
118	Hierarchical framework for robust and fast multiple-target tracking in surveillance scenarios. Expert Systems With Applications, 2013, 40, 1116-1131.	4.4	15
119	On the use of a minimal path approach for target trajectory analysis. Pattern Recognition, 2013, 46, 2015-2027.	5.1	7
120	Automatic cyst detection in OCT retinal images combining region flooding and texture analysis. , 2013, , .		21
121	Trajectory Similarity Measures Using Minimal Paths. Lecture Notes in Computer Science, 2013, , 400-409.	1.0	1
122	Precise Segmentation of the Optic Disc in Retinal Fundus Images. Lecture Notes in Computer Science, 2012, , 584-591.	1.0	12
123	Automatic processing of audiometry sequences for objective screening of hearing loss. Expert Systems With Applications, 2012, 39, 12683-12696.	4.4	5
124	Contextual and Skin Color Region Information for Face and Arms Location. Lecture Notes in Computer Science, 2012, , 616-623.	1.0	4
125	Automatic Analysis of the Patient's Conscious Responses to the Emission of Auditory Stimuli during the Performance of an Audiometry. , 2011, , .		2
126	Measuring response times to auditory stimuli during an audiometry. , 2011, , .		0

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127	Texture description in local scale using texton histograms with quadrature filter universal dictionaries. IET Computer Vision, 2011, 5, 211.	1.3	1
128	Automatic detection and characterisation of retinal vessel tree bifurcations and crossovers in eye fundus images. Computer Methods and Programs in Biomedicine, 2011, 103, 28-38.	2.6	64
129	Algorithm for registration of full Scanning Laser Ophthalmoscope video sequences. Computer Methods and Programs in Biomedicine, 2011, 102, 1-16.	2.6	4
130	Design and implementation of an affect-responsive interactive photo frame. Journal on Multimodal User Interfaces, 2011, 4, 81-95.	2.0	8
131	Solving Multiple-Target Tracking Using Adaptive Filters. Lecture Notes in Computer Science, 2011, , 416-425.	1.0	2
132	Path Analysis in Multiple-Target Video Sequences. Lecture Notes in Computer Science, 2011, , 50-59.	1.0	2
133	Fully Automatic Methodology for Human Action Recognition Incorporating Dynamic Information. Lecture Notes in Computer Science, 2011, , 173-180.	1.0	0
134	Improvements in retinal vessel clustering techniques: towards the automatic computation of the arterio venous ratio. Computing (Vienna/New York), 2010, 90, 197-217.	3.2	18
135	Sirius: A web-based system for retinal image analysis. International Journal of Medical Informatics, 2010, 79, 722-732.	1.6	47
136	Topological active volumes: A topology-adaptive deformable model for volume segmentation. Pattern Recognition, 2010, 43, 255-266.	5.1	5
137	Personal verification based on extraction and characterisation of retinal feature points. Journal of Visual Languages and Computing, 2009, 20, 80-90.	1.8	49
138	Texture Description in Local Scale Using Texton Histograms with Universal Dictionary. , 2009, , .		1
139	Measuring changes in face appearance through aging. , 2009, , .		3
140	Retinal Verification Using a Feature Points-Based Biometric Pattern. Eurasip Journal on Advances in Signal Processing, 2009, 2009, .	1.0	67
141	Automatic Drusen Detection from Digital Retinal Images: AMD Prevention. Lecture Notes in Computer Science, 2009, , 187-194.	1.0	5
142	Vascular Landmark Detection in Retinal Images. Lecture Notes in Computer Science, 2009, , 211-217.	1.0	2
143	Characterisation of Retinal Feature Points Applied to a Biometric System. Lecture Notes in Computer Science, 2009, , 355-363.	1.0	2
144	On the Quantitative Estimation of Short-Term Aging in Human Faces. Lecture Notes in Computer Science, 2009, , 575-584.	1.0	3

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145	Measuring changes in face appearance through aging. , 2009, , .		0
146	Pixel parallel vessel tree extraction for a personal authentication system. , 2008, , .		11
147	Comparison of Pixel and Subpixel Retinal Vessel Tree Segmentation Using a Deformable Contour Model. Lecture Notes in Computer Science, 2008, , 683-690.	1.0	1
148	Similarity Metrics Analysis for Feature Point Based Retinal Authentication. Lecture Notes in Computer Science, 2008, , 1023-1032.	1.0	2
149	Certainty Measure of Pairwise Line Segment Perceptual Relations Using Fuzzy Logic. , 2007, , 477-486.		0
150	Significant Perceptual Regions by Active-Nets. Lecture Notes in Computer Science, 2004, , 795-802.	1.0	0