Jorge Novo BujÃ¡n

List of Publications by Year
in descending order

135 papers	1,506 citations	361045 20 h-index	395343 33 g-index
144 all docs	144 docs citations	144 times ranked	1182 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	Color fundus image registration using a learning-based domain-specific landmark detection methodology. Computers in Biology and Medicine, 2022, 140, 105101.	3.9	10
6	Multimodal image encoding pre-training for diabetic retinopathy grading. Computers in Biology and Medicine, 2022, 143, 105302.	3.9	7
7	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
8	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
9	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
10	Pulmonary-Restricted COVID-19 Informative Visual Screening Using Chest X-ray Images fromÂPortable Devices. Lecture Notes in Computer Science, 2022, , 65-76.	1.0	1
11	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
12	Fully Automatic Epiretinal Membrane Segmentation in OCT Scans Using Convolutional Networks. Advances in Medical Diagnosis, Treatment, and Care, 2022, , 88-121.	0.1	0
13	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
14	Multimodal reconstruction of retinal images over unpaired datasets using cyclical generative adversarial networks. , 2021, , 347-376.		0
15	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
16	Fully automatic detection and classification of phytoplankton specimens in digital microscopy images. Computer Methods and Programs in Biomedicine, 2021, 200, 105923.	2.6	12
17	Automated Segmentation of the Central Serous Chorioretinopathy fluid regions using Optical Coherence Tomography Scans. , 2021, , .		2
18	Comparative and Behavioural Analysis of a Diffuse Paradigm for the Evaluation of Diabetic Macular Edema in OCT images. , 2021, , .		1

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19	Cycle Generative Adversarial Network Approaches to Produce Novel Portable Chest X-Rays Images for Covid-19 Diagnosis. , 2021, , .		15
20	Automatic Segmentation and Estimation of Ischemic Regions in Oct Angiography Scans. , 2021, , .		0
21	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
22	Context encoder self-supervised approaches for eye fundus analysis. , 2021, , .		1
23	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
24	Simultaneous segmentation and classification of the retinal arteries and veins from color fundus images. Artificial Intelligence in Medicine, 2021, 118, 102116.	3.8	22
25	Computational Radiological Screening of Patients with COVID-19 Using Chest X-ray Images from Portable Devices. Engineering Proceedings, 2021, 7, 1.	0.4	0
26	Automatic Segmentation and Visualisation of the Epirretinal Membrane in OCT Scans Using Densely Connected Convolutional Networks. Engineering Proceedings, 2021, 7, .	0.4	0
27	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
28	Self-supervised multimodal reconstruction pre-training for retinal computer-aided diagnosis. Expert Systems With Applications, 2021, 185, 115598.	4.4	7
29	COVID-19 Lung Radiography Segmentation by Means of Multiphase Transfer Learning. Engineering Proceedings, 2021, 7, .	0.4	0
30	Automatic Pipeline for Detection and Classification of Phytoplankton Specimens in Digital Microscopy Images of Freshwater Samples. Engineering Proceedings, 2021, 7, .	0.4	0
31	Portable Chest X-ray Synthetic Image Generation for the COVID-19 Screening. Engineering Proceedings, 2021, 7, 6.	0.4	2
32	Deep Multi-Segmentation Approach for the Joint Classification and Segmentation of the Retinal Arterial and Venous Trees in Color Fundus Images. Engineering Proceedings, 2021, 7, 22.	0.4	0
33	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
34	Fully Automatic Method for the Visual Acuity Estimation Using OCT Angiographies. Proceedings (mdpi), 2020, 54, 57.	0.2	0
35	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
36	Diabetic Macular Edema Characterization and Visualization Using Optical Coherence Tomography Images. Applied Sciences (Switzerland), 2020, 10, 7718.	1.3	11

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37	Joint Optic Disc and Cup Segmentation Using Self-Supervised Multimodal Reconstruction Pre-Training. Proceedings (mdpi), 2020, 54, .	0.2	0
38	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
39	Fully Automatic Retinal Vascular Tortuosity Assessment Integrating Domain-Related Information. Proceedings (mdpi), 2020, 54, .	0.2	0
40	Enhancing Retinal Blood Vessel Segmentation through Self-Supervised Pre-Training. Proceedings (mdpi), 2020, 54, .	0.2	0
41	Modeling, Localization, and Segmentation of the Foveal Avascular Zone on Retinal OCT-Angiography Images. IEEE Access, 2020, 8, 152223-152238.	2.6	4
42	Study on Relevant Features in COVID-19 PCR Tests. Proceedings (mdpi), 2020, 54, .	0.2	0
43	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
44	Automatic Detection of Freshwater Phytoplankton Specimens in Conventional Microscopy Images. Sensors, 2020, 20, 6704.	2.1	5
45	Multi-Modal Self-Supervised Pre-Training for Joint Optic Disc and Cup Segmentation in Eye Fundus Images. , 2020, , .		19
46	Fully automated identification and clinical classification of macular edema using optical coherence tomography images. , 2020, , 45-67.		1
47	Joint Diabetic Macular Edema Segmentation and Characterization in OCT Images. Journal of Digital Imaging, 2020, 33, 1335-1351.	1.6	22
48	Intraretinal fluid map generation in optical coherence tomography images. , 2020, , 19-43.		0
49	Learning the retinal anatomy from scarce annotated data using self-supervised multimodal reconstruction. Applied Soft Computing Journal, 2020, 91, 106210.	4.1	19
50	Self-supervised multimodal reconstruction of retinal images over paired datasets. Expert Systems With Applications, 2020, 161, 113674.	4.4	21
51	Intraretinal Fluid Pattern Characterization in Optical Coherence Tomography Images. Sensors, 2020, 20, 2004.	2.1	13
52	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
53	Automatic ECG Screening as a Supporting Tool on a Telemedicine Framework. Lecture Notes in Computer Science, 2020, , 289-296.	1.0	0
54	Automatic Identification of Diabetic Macular Edema Biomarkers Using Optical Coherence Tomography Scans. Lecture Notes in Computer Science, 2020, , 247-255.	1.0	1

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55	Intuitive and Coherent Intraretinal Cystoid Map Representation in Optical Coherence Tomography Images. Lecture Notes in Computer Science, 2020, , 270-278.	1.0	0
56	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
57	Automatic evaluation of eye gestural reactions to sound in video sequences. Engineering Applications of Artificial Intelligence, 2019, 85, 164-174.	4.3	2
58	Paired and Unpaired Deep Generative Models on Multimodal Retinal Image Reconstruction. Proceedings (mdpi), 2019, 21, 45.	0.2	1
59	Automatic wide field registration and mosaicking of OCTA images using vascularity information. Procedia Computer Science, 2019, 159, 505-513.	1.2	5
60	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
61	Fully automatic multi-temporal land cover classification using Sentinel-2 image data. Procedia Computer Science, 2019, 159, 650-657.	1.2	16
62	Deep Feature Analysis in a Transfer Learning-based Approach for the Automatic Identification of Diabetic Macular Edema. , 2019, , .		16
63	Self-Supervised Deep Learning for Retinal Vessel Segmentation Using Automatically Generated Labels from Multimodal Data. , 2019, , .		7
64	Intraretinal Fluid Detection by Means of a Densely Connected Convolutional Neural Network Using Optical Coherence Tomography Images. Proceedings (mdpi), 2019, 21, .	0.2	0
65	Automatic Identification of Diabetic Macular Edema Using a Transfer Learning-Based Approach. Proceedings (mdpi), 2019, 21, .	0.2	1
66	Automatic Tool for the Detection, Characterization and Intuitive Visualization of Macular Edema Regions in OCT Images. Proceedings (mdpi), 2019, 21, .	0.2	0
67	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
68	Artery/Vein Vessel Tree Identification in Near-Infrared Reflectance Retinographies. Journal of Digital Imaging, 2019, 32, 947-962.	1.6	1
69	Robust segmentation of retinal layers in optical coherence tomography images based on a multistage active contour model. Heliyon, 2019, 5, e01271.	1.4	28
70	Automatic segmentation of the foveal avascular zone in ophthalmological OCT-A images. PLoS ONE, 2019, 14, e0212364.	1.1	53
71	Automatic Visual Acuity Estimation by Means of Computational Vascularity Biomarkers Using Oct Angiographies. Sensors, 2019, 19, 4732.	2.1	2
72	Computational assessment of the retinal vascular tortuosity integrating domain-related information. Scientific Reports, 2019, 9, 19940.	1.6	8

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73	Deep Multimodal Reconstruction of Retinal Images Using Paired or Unpaired Data. , 2019, , .		5
74	Automatic Identification and Representation of the Cornea–€"Contact Lens Relationship Using AS-OCT Images. Sensors, 2019, 19, 5087.	2.1	4
75	Automatic Identification and Intuitive Map Representation of the Epiretinal Membrane Presence in 3D OCT Volumes. Sensors, 2019, 19, 5269.	2.1	10
76	Cystoid Fluid Color Map Generation in Optical Coherence Tomography Images Using a Densely Connected Convolutional Neural Network. , 2019, , .		10
77	Automatic identification and characterization of the epiretinal membrane in OCT images. Biomedical Optics Express, 2019, 10, 4018.	1.5	12
78	Learning Lung Nodule Malignancy Likelihood from Radiologist Annotations or Diagnosis Data. Journal of Medical and Biological Engineering, 2018, 38, 424-442.	1.0	19
79	Learning Retinal Patterns from Multimodal Images. Proceedings (mdpi), 2018, 2, .	0.2	0
80	Retinal Vasculature Identification and Characterization Using OCT Imaging. , 2018, , .		1
81	Multimodal registration of retinal images using domain-specific landmarks and vessel enhancement. Procedia Computer Science, 2018, 126, 97-104.	1.2	30
82	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
83	Automatic extraction of vascularity measurements using OCT-A images. Procedia Computer Science, 2018, 126, 273-281.	1.2	3
84	Multi-expert analysis and validation of objective vascular tortuosity measurements. Procedia Computer Science, 2018, 126, 482-489.	1.2	3
85	Automatic Segmentation of Diffuse Retinal Thickening Edemas Using Optical Coherence Tomography Images. Procedia Computer Science, 2018, 126, 472-481.	1.2	10
86	Retinal vascular tortuosity assessment: inter-intra expert analysis and correlation with computational measurements. BMC Medical Research Methodology, 2018, 18, 144.	1.4	20
87	Hydra, a Computer-Based Platform for Aiding Clinicians in Cardiovascular Analysis and Diagnosis. Journal of Visualized Experiments, 2018, , .	0.2	0
88	Intraretinal fluid identification via enhanced maps using optical coherence tomography images. Biomedical Optics Express, 2018, 9, 4730.	1.5	35
89	Automatic Characterization of Epiretinal Membrane in OCT Images with Supervised Training. Proceedings (mdpi), 2018, 2, 1161.	0.2	0
90	Automatic System for the Identification and Visualization of the Retinal Vessel Tree Using OCT Imaging. Proceedings (mdpi), 2018, 2, .	0.2	0

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91	Automatic Segmentation and Measurement of Vascular Biomarkers in OCT-A Images. Proceedings (mdpi), 2018, 2, .	0.2	0
92	Fluid Region Analysis and Identification via Optical Coherence Tomography Image Samples. Proceedings (mdpi), 2018, 2, 1180.	0.2	0
93	Automatic Identification and Segmentation of Diffuse Retinal Thickening Macular Edemas Using OCT Imaging. Proceedings (mdpi), 2018, 2, 1194.	0.2	0
94	Retinal Image Understanding Emerges from Self-Supervised Multimodal Reconstruction. Lecture Notes in Computer Science, 2018, , 321-328.	1.0	18
95	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
96	Automatic macular edema identification and characterization using OCT images. Computer Methods and Programs in Biomedicine, 2018, 163, 47-63.	2.6	39
97	Interactive Three-Dimensional Visualization System of the Vascular Structure in OCT Retinal Images. Lecture Notes in Computer Science, 2018, , 306-313.	1.0	1
98	Automatic Identification of Macular Edema in Optical Coherence Tomography Images. , 2018, , .		2
99	Enhanced visualization of the retinal vasculature using depth information in OCT. Medical and Biological Engineering and Computing, 2017, 55, 2209-2225.	1.6	25
100	Optical Coherence Tomography Denoising by Means of a Fourier Butterworth Filter-Based Approach. Lecture Notes in Computer Science, 2017, , 422-432.	1.0	4
101	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
102	Feature definition, analysis and selection for cystoid region characterization in Optical Coherence Tomography. Procedia Computer Science, 2017, 112, 1369-1377.	1.2	11
103	Automatic vessel detection by means of brightness profile characterization in OCT images. Procedia Computer Science, 2017, 112, 980-988.	1.2	1
104	Hydra: A web-based system for cardiovascular analysis, diagnosis and treatment. Computer Methods and Programs in Biomedicine, 2017, 139, 61-81.	2.6	27
105	Automatic Identification of Intraretinal Cystoid Regions in Optical Coherence Tomography. Lecture Notes in Computer Science, 2017, , 305-315.	1.0	8
106	Automatic Detection of Blood Vessels in Retinal OCT Images. Lecture Notes in Computer Science, 2017, , 3-10.	1.0	5
107	Feature Definition and Selection for Epiretinal Membrane Characterization in Optical Coherence Tomography Images. Lecture Notes in Computer Science, 2017, , 456-466.	1.0	4
108	Artery/vein Classification of Blood Vessel Tree in Retinal Imaging. , 2017, , .		2

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109	3D Retinal Vessel Tree Segmentation and Reconstruction with OCT Images. Lecture Notes in Computer Science, 2016, , 716-726.	1.0	8
110	Central Medialness Adaptive Strategy for 3D Lung Nodule Segmentation in Thoracic CT Images. Lecture Notes in Computer Science, 2016, , 583-590.	1.0	0
111	Hessian based approaches for 3D lung nodule segmentation. Expert Systems With Applications, 2016, 61, 1-15.	4.4	54
112	Vessel Tree Extraction and Depth Estimation with OCT Images. Lecture Notes in Computer Science, 2016, , 23-33.	1.0	3
113	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
114	BRINGING EXPERIENTIAL LEARNING WITH HTML5 AND MATLAB GUIDE ENVIRONMENT: VIRTUAL APPLICATIONS FOR EPO, ESO AND BACCALAUREATE. EDULEARN Proceedings, 2016, , .	0.0	0
115	A VIRTUAL BENCH TO EXPLAIN GEOMETRIC OPTICS USING MATLAB GUIDE ENVIRONMENT. , 2016, , .		0
116	3D lung nodule candidate detection in multiple scales. , 2015, , .		6
117	Reliable Lung Segmentation Methodology by Including Juxtapleural Nodules. Lecture Notes in Computer Science, 2014, , 227-235.	1.0	5
118	Using Evolved Artificial Neural Networks for Providing an Emergent Segmentation with an Active Net Model. Advances in Intelligent Systems and Computing, 2014, , 57-72.	0.5	0
119	Automatic classification of the interferential tear film lipid layer using colour texture analysis. Computer Methods and Programs in Biomedicine, 2013, 111, 93-103.	2.6	19
120	On the use of a minimal path approach for target trajectory analysis. Pattern Recognition, 2013, 46, 2015-2027.	5.1	7
121	Multiobjective differential evolution in the optimization of topological active models. Applied Soft Computing Journal, 2013, 13, 3167-3177.	4.1	9
122	Unified methodology for evaluating vessel tree tortuosity metrics in eye fundus images. , 2013, , .		3
123	Statistical Comparison of Classifiers Applied to the Interferential Tear Film Lipid Layer Automatic Classification. Computational and Mathematical Methods in Medicine, 2012, 2012, 1-10.	0.7	18
124	Topological Active Models optimization with Differential Evolution. Expert Systems With Applications, 2012, 39, 12165-12176.	4.4	55
125	Topological Active Volume 3D segmentation model optimized with genetic approaches. Natural Computing, 2012, 11, 161-174.	1.8	4
126	Optimization of Topological Active Nets with Differential Evolution. Lecture Notes in Computer Science, 2011, , 350-360.	1.0	4

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127	Differential Evolution Optimization of 3D Topological Active Volumes. Lecture Notes in Computer Science, 2011, , 282-290.	1.0	1
128	Evolutionary multiobjective optimization of Topological Active Nets. Pattern Recognition Letters, 2010, 31, 1781-1794.	2.6	8
129	Sirius: A web-based system for retinal image analysis. International Journal of Medical Informatics, 2010, 79, 722-732.	1.6	47
130	Optimization of Topological Active Models with Multiobjective Evolutionary Algorithms. , 2010, , .		1
131	Localisation of the optic disc by means of GA-optimised Topological Active Nets. Image and Vision Computing, 2009, 27, 1572-1584.	2.7	30
132	Vascular Landmark Detection in Retinal Images. Lecture Notes in Computer Science, 2009, , 211-217.	1.0	2
133	Optic Disc Segmentation by Means of GA-Optimized Topological Active Nets. Lecture Notes in Computer Science, 2008, , 807-816.	1.0	12
134	Topological active volume 3D segmentation model optimized with genetic approaches. Natural Computing, 0, , 1.	1.8	0
135	EnseÃ±ando Ã"ptica Coherente usando Matlab GUIDE. , 0, , .		0