

# Jorge Novo Buján

## List of Publications by Year in descending order

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Version: 2024-02-01

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	Heartbeat classification fusing temporal and morphological information of ECGs via ensemble of classifiers. <i>Biomedical Signal Processing and Control</i> , 2019, 47, 41-48.	3.5	200
2	Deep Convolutional Approaches for the Analysis of COVID-19 Using Chest X-Ray Images From Portable Devices. <i>IEEE Access</i> , 2020, 8, 195594-195607.	2.6	64
3	Topological Active Models optimization with Differential Evolution. <i>Expert Systems With Applications</i> , 2012, 39, 12165-12176.	4.4	55
4	Hessian based approaches for 3D lung nodule segmentation. <i>Expert Systems With Applications</i> , 2016, 61, 1-15.	4.4	54
5	Automatic segmentation of the foveal avascular zone in ophthalmological OCT-A images. <i>PLoS ONE</i> , 2019, 14, e0212364.	1.1	53
6	Sirius: A web-based system for retinal image analysis. <i>International Journal of Medical Informatics</i> , 2010, 79, 722-732.	1.6	47
7	Multi-stage transfer learning for lung segmentation using portable X-ray devices for patients with COVID-19. <i>Expert Systems With Applications</i> , 2021, 173, 114677.	4.4	44
8	Automatic macular edema identification and characterization using OCT images. <i>Computer Methods and Programs in Biomedicine</i> , 2018, 163, 47-63.	2.6	39
9	Fully automatic deep convolutional approaches for the analysis of COVID-19 using chest X-ray images. <i>Applied Soft Computing Journal</i> , 2022, 115, 108190.	4.1	36
10	Intraretinal fluid identification via enhanced maps using optical coherence tomography images. <i>Biomedical Optics Express</i> , 2018, 9, 4730.	1.5	35
11	Data augmentation approaches using cycle-consistent adversarial networks for improving COVID-19 screening in portable chest X-ray images. <i>Expert Systems With Applications</i> , 2021, 185, 115681.	4.4	32
12	Localisation of the optic disc by means of GA-optimised Topological Active Nets. <i>Image and Vision Computing</i> , 2009, 27, 1572-1584.	2.7	30
13	Multimodal registration of retinal images using domain-specific landmarks and vessel enhancement. <i>Procedia Computer Science</i> , 2018, 126, 97-104.	1.2	30
14	Robust segmentation of retinal layers in optical coherence tomography images based on a multistage active contour model. <i>Heliyon</i> , 2019, 5, e01271.	1.4	28
15	Hydra: A web-based system for cardiovascular analysis, diagnosis and treatment. <i>Computer Methods and Programs in Biomedicine</i> , 2017, 139, 61-81.	2.6	27
16	Deep multi-instance heatmap regression for the detection of retinal vessel crossings and bifurcations in eye fundus images. <i>Computer Methods and Programs in Biomedicine</i> , 2020, 186, 105201.	2.6	26
17	A Survey on Artificial Intelligence Techniques for Biomedical Image Analysis in Skeleton-Based Forensic Human Identification. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 4703.	1.3	26
18	Enhanced visualization of the retinal vasculature using depth information in OCT. <i>Medical and Biological Engineering and Computing</i> , 2017, 55, 2209-2225.	1.6	25

#	ARTICLE	IF	CITATIONS
19	Joint Diabetic Macular Edema Segmentation and Characterization in OCT Images. Journal of Digital Imaging, 2020, 33, 1335-1351.	1.6	22
20	Simultaneous segmentation and classification of the retinal arteries and veins from color fundus images. Artificial Intelligence in Medicine, 2021, 118, 102116.	3.8	22
21	Self-supervised multimodal reconstruction of retinal images over paired datasets. Expert Systems With Applications, 2020, 161, 113674.	4.4	21
22	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
23	Retinal vascular tortuosity assessment: inter-intra expert analysis and correlation with computational measurements. BMC Medical Research Methodology, 2018, 18, 144.	1.4	20
24	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
25	Learning Lung Nodule Malignancy Likelihood from Radiologist Annotations or Diagnosis Data. Journal of Medical and Biological Engineering, 2018, 38, 424-442.	1.0	19
26	Multi-Modal Self-Supervised Pre-Training for Joint Optic Disc and Cup Segmentation in Eye Fundus Images. , 2020, , .		19
27	Learning the retinal anatomy from scarce annotated data using self-supervised multimodal reconstruction. Applied Soft Computing Journal, 2020, 91, 106210.	4.1	19
28	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
29	Retinal Image Understanding Emerges from Self-Supervised Multimodal Reconstruction. Lecture Notes in Computer Science, 2018, , 321-328.	1.0	18
30	Retinal microaneurysms detection using adversarial pre-training with unlabeled multimodal images. Information Fusion, 2022, 79, 146-161.	11.7	17
31	Fully automatic multi-temporal land cover classification using Sentinel-2 image data. Procedia Computer Science, 2019, 159, 650-657.	1.2	16
32	Deep Feature Analysis in a Transfer Learning-based Approach for the Automatic Identification of Diabetic Macular Edema. , 2019, , .		16
33	Cycle Generative Adversarial Network Approaches to Produce Novel Portable Chest X-Rays Images for Covid-19 Diagnosis. , 2021, , .		15
34	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
35	Intraretinal Fluid Pattern Characterization in Optical Coherence Tomography Images. Sensors, 2020, 20, 2004.	2.1	13
36	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

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37	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
38	Fully automatic detection and classification of phytoplankton specimens in digital microscopy images. Computer Methods and Programs in Biomedicine, 2021, 200, 105923.	2.6	12
39	Optic Disc Segmentation by Means of GA-Optimized Topological Active Nets. Lecture Notes in Computer Science, 2008, , 807-816.	1.0	12
40	Automatic identification and characterization of the epiretinal membrane in OCT images. Biomedical Optics Express, 2019, 10, 4018.	1.5	12
41	Feature definition, analysis and selection for cystoid region characterization in Optical Coherence Tomography. Procedia Computer Science, 2017, 112, 1369-1377.	1.2	11
42	Diabetic Macular Edema Characterization and Visualization Using Optical Coherence Tomography Images. Applied Sciences (Switzerland), 2020, 10, 7718.	1.3	11
43	Automatic Segmentation of Diffuse Retinal Thickening Edemas Using Optical Coherence Tomography Images. Procedia Computer Science, 2018, 126, 472-481.	1.2	10
44	Automatic Identification and Intuitive Map Representation of the Epiretinal Membrane Presence in 3D OCT Volumes. Sensors, 2019, 19, 5269.	2.1	10
45	Cystoid Fluid Color Map Generation in Optical Coherence Tomography Images Using a Densely Connected Convolutional Neural Network. , 2019, , .		10
46	Color fundus image registration using a learning-based domain-specific landmark detection methodology. Computers in Biology and Medicine, 2022, 140, 105101.	3.9	10
47	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
48	Multiobjective differential evolution in the optimization of topological active models. Applied Soft Computing Journal, 2013, 13, 3167-3177.	4.1	9
49	Evolutionary multiobjective optimization of Topological Active Nets. Pattern Recognition Letters, 2010, 31, 1781-1794.	2.6	8
50	3D Retinal Vessel Tree Segmentation and Reconstruction with OCT Images. Lecture Notes in Computer Science, 2016, , 716-726.	1.0	8
51	Computational assessment of the retinal vascular tortuosity integrating domain-related information. Scientific Reports, 2019, 9, 19940.	1.6	8
52	Automatic Identification of Intraretinal Cystoid Regions in Optical Coherence Tomography. Lecture Notes in Computer Science, 2017, , 305-315.	1.0	8
53	On the use of a minimal path approach for target trajectory analysis. Pattern Recognition, 2013, 46, 2015-2027.	5.1	7
54	Self-Supervised Deep Learning for Retinal Vessel Segmentation Using Automatically Generated Labels from Multimodal Data. , 2019, , .		7

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55	Self-supervised multimodal reconstruction pre-training for retinal computer-aided diagnosis. Expert Systems With Applications, 2021, 185, 115598.	4.4	7
56	Multimodal image encoding pre-training for diabetic retinopathy grading. Computers in Biology and Medicine, 2022, 143, 105302.	3.9	7
57	3D lung nodule candidate detection in multiple scales. , 2015, , .		6
58	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
59	Automatic wide field registration and mosaicking of OCTA images using vascularity information. Procedia Computer Science, 2019, 159, 505-513.	1.2	5
60	Deep Multimodal Reconstruction of Retinal Images Using Paired or Unpaired Data. , 2019, , .		5
61	Automatic Detection of Freshwater Phytoplankton Specimens in Conventional Microscopy Images. Sensors, 2020, 20, 6704.	2.1	5
62	Reliable Lung Segmentation Methodology by Including Juxtapleural Nodules. Lecture Notes in Computer Science, 2014, , 227-235.	1.0	5
63	Automatic Detection of Blood Vessels in Retinal OCT Images. Lecture Notes in Computer Science, 2017, , 3-10.	1.0	5
64	Topological Active Volume 3D segmentation model optimized with genetic approaches. Natural Computing, 2012, 11, 161-174.	1.8	4
65	Optical Coherence Tomography Denoising by Means of a Fourier Butterworth Filter-Based Approach. Lecture Notes in Computer Science, 2017, , 422-432.	1.0	4
66	Automatic Identification and Representation of the Corneaâ€™Contact Lens Relationship Using AS-OCT Images. Sensors, 2019, 19, 5087.	2.1	4
67	Modeling, Localization, and Segmentation of the Foveal Avascular Zone on Retinal OCT-Angiography Images. IEEE Access, 2020, 8, 152223-152238.	2.6	4
68	Feature Definition and Selection for Epiretinal Membrane Characterization in Optical Coherence Tomography Images. Lecture Notes in Computer Science, 2017, , 456-466.	1.0	4
69	Optimization of Topological Active Nets with Differential Evolution. Lecture Notes in Computer Science, 2011, , 350-360.	1.0	4
70	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
71	Unified methodology for evaluating vessel tree tortuosity metrics in eye fundus images. , 2013, , .		3
72	Vessel Tree Extraction and Depth Estimation with OCT Images. Lecture Notes in Computer Science, 2016, , 23-33.	1.0	3

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73	Automatic extraction of vascularity measurements using OCT-A images. <i>Procedia Computer Science</i> , 2018, 126, 273-281.	1.2	3
74	Multi-expert analysis and validation of objective vascular tortuosity measurements. <i>Procedia Computer Science</i> , 2018, 126, 482-489.	1.2	3
75	Detection of reactions to sound via gaze and global eye motion analysis using camera streaming. <i>Machine Vision and Applications</i> , 2018, 29, 1069-1082.	1.7	3
76	Feature definition and comprehensive analysis on the robust identification of intraretinal cystoid regions using optical coherence tomography images. <i>Pattern Analysis and Applications</i> , 2022, 25, 1-15.	3.1	3
77	Fully-Automatic 3D Intuitive Visualization of Age-Related Macular Degeneration Fluid Accumulations in OCT Cubes. <i>Journal of Digital Imaging</i> , 2022, 35, 1271-1282.	1.6	3
78	Automatic evaluation of eye gestural reactions to sound in video sequences. <i>Engineering Applications of Artificial Intelligence</i> , 2019, 85, 164-174.	4.3	2
79	Automatic Visual Acuity Estimation by Means of Computational Vascularity Biomarkers Using Oct Angiographies. <i>Sensors</i> , 2019, 19, 4732.	2.1	2
80	Automated Segmentation of the Central Serous Chorioretinopathy fluid regions using Optical Coherence Tomography Scans. , 2021, , .		2
81	Vascular Landmark Detection in Retinal Images. <i>Lecture Notes in Computer Science</i> , 2009, , 211-217.	1.0	2
82	Artery/vein Classification of Blood Vessel Tree in Retinal Imaging. , 2017, , .		2
83	Portable Chest X-ray Synthetic Image Generation for the COVID-19 Screening. <i>Engineering Proceedings</i> , 2021, 7, 6.	0.4	2
84	Automatic Identification of Macular Edema in Optical Coherence Tomography Images. , 2018, , .		2
85	Optimization of Topological Active Models with Multiobjective Evolutionary Algorithms. , 2010, , .		1
86	Automatic vessel detection by means of brightness profile characterization in OCT images. <i>Procedia Computer Science</i> , 2017, 112, 980-988.	1.2	1
87	Retinal Vasculature Identification and Characterization Using OCT Imaging. , 2018, , .		1
88	Paired and Unpaired Deep Generative Models on Multimodal Retinal Image Reconstruction. <i>Proceedings (mdpi)</i> , 2019, 21, 45.	0.2	1
89	Retinal vascular analysis in a fully automated method for the segmentation of DRT edemas using OCT images. <i>Procedia Computer Science</i> , 2019, 159, 600-609.	1.2	1
90	Automatic Identification of Diabetic Macular Edema Using a Transfer Learning-Based Approach. <i>Proceedings (mdpi)</i> , 2019, 21, .	0.2	1

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91	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
92	Artery/Vein Vessel Tree Identification in Near-Infrared Reflectance Retinographies. Journal of Digital Imaging, 2019, 32, 947-962.	1.6	1
93	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
94	Fully automated identification and clinical classification of macular edema using optical coherence tomography images. , 2020, , 45-67.		1
95	Comparative and Behavioural Analysis of a Diffuse Paradigm for the Evaluation of Diabetic Macular Edema in OCT images. , 2021, , .		1
96	Context encoder self-supervised approaches for eye fundus analysis. , 2021, , .		1
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	Differential Evolution Optimization of 3D Topological Active Volumes. Lecture Notes in Computer Science, 2011, , 282-290.	1.0	1
99	Automatic Identification of Diabetic Macular Edema Biomarkers Using Optical Coherence Tomography Scans. Lecture Notes in Computer Science, 2020, , 247-255.	1.0	1
100	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
101	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
102	Topological active volume 3D segmentation model optimized with genetic approaches. Natural Computing, 0, , 1.	1.8	0
103	Central Medialness Adaptive Strategy for 3D Lung Nodule Segmentation in Thoracic CT Images. Lecture Notes in Computer Science, 2016, , 583-590.	1.0	0
104	Learning Retinal Patterns from Multimodal Images. Proceedings (mdpi), 2018, 2, .	0.2	0
105	Hydra, a Computer-Based Platform for Aiding Clinicians in Cardiovascular Analysis and Diagnosis. Journal of Visualized Experiments, 2018, , .	0.2	0
106	Automatic Characterization of Epiretinal Membrane in OCT Images with Supervised Training. Proceedings (mdpi), 2018, 2, 1161.	0.2	0
107	Automatic System for the Identification and Visualization of the Retinal Vessel Tree Using OCT Imaging. Proceedings (mdpi), 2018, 2, .	0.2	0
108	Automatic Segmentation and Measurement of Vascular Biomarkers in OCT-A Images. Proceedings (mdpi), 2018, 2, .	0.2	0

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109	Fluid Region Analysis and Identification via Optical Coherence Tomography Image Samples. Proceedings (mdpi), 2018, 2, 1180.	0.2	0
110	Automatic Identification and Segmentation of Diffuse Retinal Thickening Macular Edemas Using OCT Imaging. Proceedings (mdpi), 2018, 2, 1194.	0.2	0
111	Intraretinal Fluid Detection by Means of a Densely Connected Convolutional Neural Network Using Optical Coherence Tomography Images. Proceedings (mdpi), 2019, 21, .	0.2	0
112	Automatic Tool for the Detection, Characterization and Intuitive Visualization of Macular Edema Regions in OCT Images. Proceedings (mdpi), 2019, 21, .	0.2	0
113	Fully Automatic Method for the Visual Acuity Estimation Using OCT Angiographies. Proceedings (mdpi), 2020, 54, 57.	0.2	0
114	Joint Optic Disc and Cup Segmentation Using Self-Supervised Multimodal Reconstruction Pre-Training. Proceedings (mdpi), 2020, 54, .	0.2	0
115	Fully Automatic Retinal Vascular Tortuosity Assessment Integrating Domain-Related Information. Proceedings (mdpi), 2020, 54, .	0.2	0
116	Enhancing Retinal Blood Vessel Segmentation through Self-Supervised Pre-Training. Proceedings (mdpi), 2020, 54, .	0.2	0
117	Study on Relevant Features in COVID-19 PCR Tests. Proceedings (mdpi), 2020, 54, .	0.2	0
118	Intraretinal fluid map generation in optical coherence tomography images. , 2020, , 19-43.		0
119	Multimodal reconstruction of retinal images over unpaired datasets using cyclical generative adversarial networks. , 2021, , 347-376.		0
120	Automatic Segmentation and Estimation of Ischemic Regions in Oct Angiography Scans. , 2021, , .		0
121	Computational Radiological Screening of Patients with COVID-19 Using Chest X-ray Images from Portable Devices. Engineering Proceedings, 2021, 7, 1.	0.4	0
122	Automatic Segmentation and Visualisation of the Epirretinal Membrane in OCT Scans Using Densely Connected Convolutional Networks. Engineering Proceedings, 2021, 7, .	0.4	0
123	COVID-19 Lung Radiography Segmentation by Means of Multiphase Transfer Learning. Engineering Proceedings, 2021, 7, .	0.4	0
124	Automatic Pipeline for Detection and Classification of Phytoplankton Specimens in Digital Microscopy Images of Freshwater Samples. Engineering Proceedings, 2021, 7, .	0.4	0
125	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
126	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



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127	“White Coat”-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
128	BRINGING EXPERIENTIAL LEARNING WITH HTML5 AND MATLAB GUIDE ENVIRONMENT: VIRTUAL APPLICATIONS FOR EPO, ESO AND BACCALAUREATE. EDULEARN Proceedings, 2016, , .	0.0	0
129	Enseñando Óptica Coherente usando Matlab GUIDE. , 0, , .		0
130	A VIRTUAL BENCH TO EXPLAIN GEOMETRIC OPTICS USING MATLAB GUIDE ENVIRONMENT. , 2016, , .		0
131	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
132	Automatic ECG Screening as a Supporting Tool on a Telemedicine Framework. Lecture Notes in Computer Science, 2020, , 289-296.	1.0	0
133	Intuitive and Coherent Intraretinal Cystoid Map Representation in Optical Coherence Tomography Images. Lecture Notes in Computer Science, 2020, , 270-278.	1.0	0
134	Fully Automatic Epiretinal Membrane Segmentation in OCT Scans Using Convolutional Networks. Advances in Medical Diagnosis, Treatment, and Care, 2022, , 88-121.	0.1	0
135	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