Joao Miguel Sanches

List of Publications by Citations

145 papers	1,850 citations	24 h-index	38 g-index
158 ext. papers	2,313 ext. citations	3.2 avg, IF	4.78 L-index

#	Paper	IF	Citations
145	Automated stratification of liver disease in ultrasound: An online accurate feature classification paradigm. *Computer Methods and Programs in Biomedicine*, **2016**, 130, 118-34	6.9	107
144	Hereditary diffuse gastric cancer: updated clinical practice guidelines. *Lancet Oncology, The*, **2020**, 21, e386-e397	21.7	95
143	State-of-the-art review on deep learning in medical imaging. *Frontiers in Bioscience - Landmark*, **2019**, 24, 392-426	2.8	84
142	Data mining framework for fatty liver disease classification in ultrasound: a hybrid feature extraction paradigm. *Medical Physics*, **2012**, 39, 4255-64	4.4	82
141	Symtosis: A liver ultrasound tissue characterization and risk stratification in optimized deep learning paradigm. *Computer Methods and Programs in Biomedicine*, **2018**, 155, 165-177	6.9	82
140	Preventing E-cadherin aberrant N-glycosylation at Asn-554 improves its critical function in gastric cancer. *Oncogene*, **2016**, 35, 1619-31	9.2	78
139	Atherosclerotic plaque tissue characterization in 2D ultrasound longitudinal carotid scans for automated classification: a paradigm for stroke risk assessment. *Medical and Biological Engineering and Computing*, **2013**, 51, 513-23	3.1	75
138	Medical image noise reduction using the Sylvester-Lyapunov equation. *IEEE Transactions on Image Processing*, **2008**, 17, 1522-39	8.7	62
137	Understanding symptomatology of atherosclerotic plaque by image-based tissue characterization. *Computer Methods and Programs in Biomedicine*, **2013**, 110, 66-75	6.9	51
136	Extreme Learning Machine Framework for Risk Stratification of Fatty Liver Disease Using Ultrasound Tissue Characterization. *Journal of Medical Systems*, **2017**, 41, 152	5.1	51
135	Rayleigh mixture model for plaque characterization in intravascular ultrasound. *IEEE Transactions on Biomedical Engineering*, **2011**, 58, 1314-24	5	51
134	COVID-19 pathways for brain and heart injury in comorbidity patients: A role of medical imaging and artificial intelligence-based COVID severity classification: A review. *Computers in Biology and Medicine*, **2020**, 124, 103960	7	44
133	Blind inpainting using l0 and total variation regularization. *IEEE Transactions on Image Processing*, **2015**, 24, 2239-53	8.7	34
132	. *IEEE Transactions on Instrumentation and Measurement*, **2013**, 62, 392-400	5.2	34
131	A 3-D ultrasound-based framework to characterize the echo morphology of carotid plaques. *IEEE Transactions on Biomedical Engineering*, **2009**, 56, 1442-53	5	34
130	A Rayleigh reconstruction/interpolation algorithm for 3D ultrasound. *Pattern Recognition Letters*, **2000**, 21, 917-926	4.7	34
129	Predicting the Functional Impact of CDH1 Missense Mutations in Hereditary Diffuse Gastric Cancer. *International Journal of Molecular Sciences*, **2017**, 18,	6.3	32

128	Sleep and wakefulness state detection in nocturnal actigraphy based on movement information. *IEEE Transactions on Biomedical Engineering*, **2014**, 61, 426-34	5	29
127	Denoising of medical images corrupted by Poisson noise **2008**,		29
126	Image reconstruction under multiplicative speckle noise using total variation. *Neurocomputing*, **2015**, 150, 200-213	5.4	27
125	Classification and staging of chronic liver disease from multimodal data. *IEEE Transactions on Biomedical Engineering*, **2013**, 60, 1336-44	5	27
124	A narrative review on characterization of acute respiratory distress syndrome in COVID-19-infected lungs using artificial intelligence. *Computers in Biology and Medicine*, **2021**, 130, 104210	7	26
123	Quantification of mutant E-cadherin using bioimaging analysis of in situ fluorescence microscopy. A new approach to CDH1 missense variants. *European Journal of Human Genetics*, **2015**, 23, 1072-9	5.3	25
122	Blue intensity matters for cell cycle profiling in fluorescence DAPI-stained images. *Laboratory Investigation*, **2017**, 97, 615-625	5.9	24
121	Gamma mixture classifier for plaque detection in intravascular ultrasonic images. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2014**, 61, 44-61	3.2	24
120	Ultrasound Imaging **2012**,		24
119	Modeling log-compressed ultrasound images for radio frequency signal recovery. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2008**, 2008, 426-9	0.9	24
118	Hypnogram and sleep parameter computation from activity and cardiovascular data. *IEEE Transactions on Biomedical Engineering*, **2014**, 61, 1711-9	5	22
117	Convex total variation denoising of Poisson fluorescence confocal images with anisotropic filtering. *IEEE Transactions on Image Processing*, **2011**, 20, 146-60	8.7	20
116	Hereditary Gastric and Breast Cancer Syndromes Related to CDH1 Germline Mutation: A Multidisciplinary Clinical Review. *Cancers*, **2020**, 12,	6.6	18
115	Asymptomatic carotid disease--a new tool for assessing neurological risk. *Echocardiography*, **2014**, 31, 353-61	1.5	18
114	Fatty Liver Characterization and Classification by Ultrasound. *Lecture Notes in Computer Science*, **2009**, 354-361	0.9	18
113	Joint image registration and volume reconstruction for 3D ultrasound. *Pattern Recognition Letters*, **2003**, 24, 791-800	4.7	17
112	Quantification of topological features in cell meshes to explore E-cadherin dysfunction. *Scientific Reports*, **2016**, 6, 25101	4.9	15
111	A total variation recursive space-variant filter for image denoising **2015**, 40, 101-116		14

110	Atomic force microscopy and graph analysis to study the P-cadherin/SFK mechanotransduction signalling in breast cancer cells. *Nanoscale*, **2016**, 8, 19390-19401	7.7	13
109	Multi-Modality Atherosclerosis Imaging and Diagnosis **2014**,		13
108	Atheromatic️symptomatic vs. asymptomatic classification of carotid ultrasound plaque using a combination of HOS, DWT & texture. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2011**, 2011, 4489-92	0.9	13
107	Convex ultrasound image reconstruction with log-Euclidean priors. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2008**, 2008, 435-8	0.9	13
106	Compensation of log-compressed images for 3-D ultrasound. *Ultrasound in Medicine and Biology*, **2003**, 29, 239-53	3.5	13
105	On estimating de-speckled and speckle components from B-mode ultrasound images **2010**,		12
104	A novel metric for bone marrow cells chromosome pairing. *IEEE Transactions on Biomedical Engineering*, **2010**, 57, 1420-9	5	12
103	A multiscale algorithm for three-dimensional free-hand ultrasound. *Ultrasound in Medicine and Biology*, **2002**, 28, 1029-40	3.5	12
102	Integration of cardiovascular risk assessment with COVID-19 using artificial intelligence. *Reviews in Cardiovascular Medicine*, **2020**, 21, 541-560	3.9	12
101	Targeting the PI3K Signalling as a Therapeutic Strategy in Colorectal Cancer. *Advances in Experimental Medicine and Biology*, **2018**, 1110, 35-53	3.6	12
100	An ultrasonographic risk score for detecting symptomatic carotid atherosclerotic plaques. *IEEE Journal of Biomedical and Health Informatics*, **2015**, 19, 1505-13	7.2	10
99	Global and local detection of liver steatosis from ultrasound. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2012**, 2012, 6547-50	0.9	10
98	Diffuse Liver Disease Classification from Ultrasound Surface Characterization, Clinical and Laboratorial Data. *Lecture Notes in Computer Science*, **2011**, 167-175	0.9	9
97	E-cadherin signal sequence disruption: a novel mechanism underlying hereditary cancer. *Molecular Cancer*, **2018**, 17, 112	42.1	8
96	Ultrasonographic characterization and identification of symptomatic carotid plaques. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2010**, 2010, 6110-3	0.9	7
95	A CAD system for atherosclerotic plaque assessment. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2012**, 2012, 1008-11	0.9	7
94	Wilson️s disease: A new perspective review on its genetics, diagnosis and treatment. *Frontiers in Bioscience - Elite*, **2019**, 11, 166-185	1.6	7
93	e-CoVig: A Novel mHealth System for Remote Monitoring of Symptoms in COVID-19. *Sensors*, **2021**, 21,	3.8	7

92	SRC inhibition prevents P-cadherin mediated signaling and function in basal-like breast cancer cells. *Cell Communication and Signaling*, **2018**, 16, 75	7.5	7
91	Clinical and functional characterization of the CDH1 germline variant c.1679C>G in three unrelated families with hereditary diffuse gastric cancer. *European Journal of Human Genetics*, **2018**, 26, 1348-1353	5.3	7
90	Geometric compensation applied to image analysis of cell populations with morphological variability: a new role for a classical concept. *Scientific Reports*, **2018**, 8, 10266	4.9	6
89	An ultrasound-based computer-aided diagnosis tool for steatosis detection. *IEEE Journal of Biomedical and Health Informatics*, **2014**, 18, 1397-403	7.2	6
88	Topographic EEG brain mapping before, during and after Obstructive Sleep Apnea Episodes **2011**,		6
87	Chronic liver disease staging classification based on ultrasound, clinical and laboratorial data **2011**,		6
86	Geometric correction of deformed chromosomes for automatic Karyotyping. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2012**, 2012, 4438-41	0.9	6
85	RF Ultrasound Estimation from B-Mode Images **2012**, 3-24		6
84	Phase-locking factor in a motor imagery Brain-Computer Interface. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2012**, 2012, 2877-80	0.9	5
83	Optimal sampling and estimation in PASL perfusion imaging. *IEEE Transactions on Biomedical Engineering*, **2011**, 58, 3165-74	5	5
82	Ultrasonographic plaque characterization using a rayleigh mixture model **2010**,		5
81	Pattern Recognition and Image Analysis. *Lecture Notes in Computer Science*, **2011**,	0.9	5
80	Fluorescence microscopy imaging denoising with log-Euclidean priors and photobleaching compensation **2009**,		5
79	The usefulness of ultrasound in the classification of chronic liver disease. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2011**, 2011, 5132-5	0.9	5
78	Automatic chromosome pairing using mutual information. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2008**, 2008, 1918-21	0.9	5
77	Image Reconstruction using the Benford Law **2006**,		5
76	A MAP Estimation Algorithm Using IIR Recursive Filters. *Lecture Notes in Computer Science*, **2003**, 436-449	0.9	5
75	Minimum total variation in 3D ultrasound reconstruction **2005**,		5

74	A Fast MAP Algorithm for 3D Ultrasound. *Lecture Notes in Computer Science*, **2001**, 63-74	0.9	5
73	A Rayleigh Mixture Model for IVUS Imaging **2012**, 25-47		5
72	Photoblinking/photobleaching differential equation model for intensity decay of fluorescence microscopy images **2010**,		4
71	Bayesian fisher information criterion for sampling optimization in ASL-MRI **2010**,		4
70	Classifier-assisted metric for chromosome pairing. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2010**, 2010, 6729-32	0.9	4
69	An actigraphy heterogeneous mixture model for sleep assessment. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2012**, 2012, 2275-8	0.9	4
68	Fluorescence Confocal Microscopy imaging denoising with photobleaching. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2008**, 2008, 2205-8	0.9	4
67	Image Denoising Using the Lyapunov Equation from Non-uniform Samples. *Lecture Notes in Computer Science*, **2006**, 351-358	0.9	4
66	An unified framework for Bayesian denoising for several medical and biological imaging modalities. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2007**, 2007, 6268-71		4
65	Segmentation of Cell Nuclei in Fluorescence Microscopy Images Using Deep Learning. *Lecture Notes in Computer Science*, **2019**, 53-64	0.9	4
64	Ultrasound Plaque Enhanced Activity Index for Predicting Neurological Symptoms. *Lecture Notes in Computer Science*, **2011**, 184-191	0.9	4
63	A Total Variation Based Reconstruction Algorithm for 3D Ultrasound. *Lecture Notes in Computer Science*, **2013**, 149-156	0.9	4
62	A Gamma Mixture Model for IVUS Imaging **2014**, 155-171		4
61	Robust band profile extraction using constrained nonparametric machine-learning technique. *IEEE Transactions on Biomedical Engineering*, **2010**, 57, 2587-91	5	3
60	ATP consumption and neural electrical activity: a physiological model for brain imaging. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2010**, 2010, 5480-3	0.9	3
59	Headset Bluetooth and cell phone based continuous central body temperature measurement system. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2010**, 2010, 2975-8	0.9	3
58	Statistical characterization of actigraphy data during sleep and wakefulness states. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2010**, 2010, 2342-5	0.9	3
57	3D femur reconstruction using a robotized ultrasound probe **2012**,		3

56	Chromosome pairing for karyotyping purposes using mutual information **2008**,		3
55	Carotid plaque 3D compound imaging and echo-morphology analysis: a Bayesian approach. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2007**, 2007, 763-6		3
54	Sleep/Wakefulness State from Actigraphy. *Lecture Notes in Computer Science*, **2009**, 362-369	0.9	3
53	Bioinformatics Applications in Life Sciences and Technologies. *BioMed Research International*, **2016**, 2016, 3603827	3	3
52	The Papoulis-Gerchberg Algorithm with Unknown Signal Bandwidth. *Lecture Notes in Computer Science*, **2006**, 436-445	0.9	3
51	Ultrasound Liver Surface and Textural Characterization for the Detection of Liver Cirrhosis **2014**, 145-168		2
50	E-Cadherin Radial Distribution Characterization for Mutation Detection Purposes. *Lecture Notes in Computer Science*, **2013**, 173-180	0.9	2
49	Photobleaching/photoblinking differential equation model for fluorescence microscopy imaging. *Microscopy and Microanalysis*, **2013**, 19, 1110-21	0.5	2
48	Assessment of Obstructive Sleep Apnea Syndrome by spectral analysis of physiological parameters **2011**,		2
47	Ultrasound imaging LV tracking with adaptive window size and automatic hyper-parameter estimation **2008**,		2
46	Comparison of two different approaches for brain activity detection in fMRI: SPM-MAP and SPM-GLM **2008**,		2
45	Estimation of cardiac phases in echographic images using multiple models		2
44	Alignment-by-reconstruction for 3D ultrasound imaging		2
43	Determining transaminase activity in bacterial libraries by time-lapse imaging. *Chemical Communications*, **2019**, 55, 13538-13541	5.8	2
42	Ultrasound Speckle/Despeckle Image Decomposition for Tissue Analysis **2012**, 73-95		2
41	Adaptive Order Non-Convex Lp-norm Regularization in Image Restoration. *Journal of Physics: Conference Series*, **2017**, 904, 012016	0.3	1
40	Three-Dimensional Ultrasound Plaque Characterization **2012**, 203-221		1
39	Challenges for non-invasive brain perfusion quantification using arterial spin labeling. *Neuroradiology Journal*, **2011**, 24, 77-83	2	1

38	Automatic annotation of actigraphy data for sleep disorders diagnosis purposes. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2010**, 2010, 5081-4	0.9	1
37	Bayesian optimization of perfusion and transit time estimation in PASL-MRI. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2010**, 2010, 4284-7	0.9	1
36	Total variation with automatic hyper-parameter estimation. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2008**, 2008, 443-6	0.9	1
35	Robust brain activation detection in functional MRI **2008**,		1
34	Liver tumor assessment with DCE-MRI **2008**,		1
33	Automatic liver tumor diagnosis with Dynamic-Contrast Enhanced MRI **2008**,		1
32	Temporal 2D reconstruction of cell nucleus from Fluorescence Confocal Microscopy images with anisotropic filtering. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2008**, 2008, 2197-200	0.9	1
31	Joint Bayesian detection of brain activated regions and local HRF estimation in functional MRI. *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, **2008**,	1.6	1
30	A method for the dynamic analysis of the heart using a Lyapounov based denoising algorithm. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2006**, 2006, 4828-31		1
29	Tracking the Left Ventricle in Ultrasound Images Based on Total Variation Denoising. *Lecture Notes in Computer Science*, **2007**, 628-636	0.9	1
28	Three-Dimensional Ultrasonic Assessment of Atherosclerotic Plaques. *Lecture Notes in Computer Science*, **2007**, 523-531	0.9	1
27	Topographic EEG Brain Mapping before, during and after Obstructive Sleep Apnea Episodes. *Lecture Notes in Computer Science*, **2011**, 564-571	0.9	1
26	Classification and Staging of Chronic Liver Disease Based on Ultrasound, Laboratorial, and Clinical Data **2012**, 255-282		1
25	Interphase Cell Cycle Staging using Deep Learning. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2020**, 2020, 1432-1435	0.9	1
24	Combining Deep Learning with Handcrafted Features for Cell Nuclei Segmentation. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2020**, 2020, 1428-1431	0.9	1
23	A single stiffened nucleus alters cell dynamics and coherence in a monolayer. *Cytoskeleton*, **2021**, 78, 277-283	2.4	1
22	fMRI binary detection of brain activated regions with graph-cuts. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2008**, 2008, 4411-4	0.9	0
21	Camera-based Photoplethysmography (cbPPG) using smartphone rear and frontal cameras: an experimental study. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2021**, 2021, 7091-7094	0.9	0

| 20 | PPG Beat Reconstruction Based on Shape Models and Probabilistic Templates for Signals Acquired with Conventional Smartphones. *Lecture Notes in Computer Science*, **2015**, 595-602 | 0.9 | 0 |

| 19 | Scalp EEG Continuous Space ERD/ERS Quantification. *Lecture Notes in Computer Science*, **2013**, 616-623 | 0.9 | 0 |

| 18 | A machine learning approach for single cell interphase cell cycle staging. *Scientific Reports*, **2021**, 11, 19278 | 4.9 | 0 |

| 17 | Denoising of LSFCM images with compensation for the photoblinking/photobleaching effects. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2010**, 2010, 4292-5 | 0.9 | |

| 16 | Three-dimensional labeling of vulnerable regions in carotid plaques using Graph-Cuts. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2008**, 2008, 3150-3 | 0.9 | |

| 15 | Neural physiological modeling towards a hemodynamic response function for fMRI. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2007**, 2007, 1615-8 | | |

| 14 | A 3D Ultrasound System for Medical Diagnosis. *Lecture Notes in Computer Science*, **2003**, 893-901 | 0.9 | |

| 13 | MAP Signal Reconstruction with Non Regular Grids. *Lecture Notes in Computer Science*, **2004**, 204-211 | 0.9 | |

| 12 | Pharmacokinetic Perfusion Curves Estimation for Liver Tumor Diagnosis from DCE-MRI. *Lecture Notes in Computer Science*, **2008**, 789-797 | 0.9 | |

| 11 | A Novel Graph-Based Approach for Seriation of Mouse Brain Cross-Section from Images. *Lecture Notes in Computer Science*, **2019**, 461-471 | 0.9 | |

| 10 | Noise Decomposition Using Polynomial Approximation. *Lecture Notes in Computer Science*, **2015**, 157-164 | 0.9 | |

| 9 | Capturing quantitative features of protein expression from in situ fluorescence microscopic images of cancer cell populations **2017**, 279-297 | | |

| 8 | Automatic HyperParameter Estimation in fMRI. *Lecture Notes in Computer Science*, **2011**, 117-125 | 0.9 | |

| 7 | Activity Index: A Tool to Identify Active Carotid Plaques **2012**, 163-175 | | |

| 6 | A Bayesian Approach to Perfusion Imaging Using ASL MRI. *Lecture Notes in Computer Science*, **2013**, 691-698 | 0.9 | |

| 5 | Detection of Carotid Plaque Symptoms Using Ultrasound Imaging. *Lecture Notes in Computer Science*, **2013**, 584-591 | 0.9 | |

| 4 | Cirrhosis Prognostic Quantification with Ultrasound: An Approximation to Model for End-Stage Liver Disease. *Lecture Notes in Computer Science*, **2013**, 551-558 | 0.9 | |

| 3 | Assessment of Image Quality Using a Pseudophakic Eye Model for Refractive Evaluation. *Lecture Notes in Computer Science*, **2013**, 543-550 | 0.9 | |

2   Ultrasound Profile of Carotid Plaque: A New Approach Towards Stroke Prediction **2014**, 173-185

1   Error perception classification in Brain-Computer Interfaces using CNN. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2021**, 2021, 204-207   0.9