

Jorge S Marques

List of Publications by Year in descending order

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159
papers

3,326
citations

279798

23
h-index

206112

48
g-index

163
all docs

163
docs citations

163
times ranked

2513
citing authors

#	ARTICLE	IF	CITATIONS
1	PH<sup>2</sup> - A dermoscopic image database for research and benchmarking. , 2013, 2013, 5437-40.		426
2	Comparison of Segmentation Methods for Melanoma Diagnosis in Dermoscopy Images. IEEE Journal on Selected Topics in Signal Processing, 2009, 3, 35-45.	10.8	327
3	Two Systems for the Detection of Melanomas in Dermoscopy Images Using Texture and Color Features. IEEE Systems Journal, 2014, 8, 965-979.	4.6	289
4	Performance evaluation of object detection algorithms for video surveillance. IEEE Transactions on Multimedia, 2006, 8, 761-774.	7.2	202
5	A Survey of Feature Extraction in Dermoscopy Image Analysis of Skin Cancer. IEEE Journal of Biomedical and Health Informatics, 2019, 23, 1096-1109.	6.3	121
6	A System for the Detection of Pigment Network in Dermoscopy Images Using Directional Filters. IEEE Transactions on Biomedical Engineering, 2012, 59, 2744-2754.	4.2	104
7	Improving Dermoscopy Image Classification Using Color Constancy. IEEE Journal of Biomedical and Health Informatics, 2014, 19, 1-1.	6.3	100
8	A class of constrained clustering algorithms for object boundary extraction. IEEE Transactions on Image Processing, 1996, 5, 1507-1521.	9.8	97
9	Trajectory Classification Using Switched Dynamical Hidden Markov Models. IEEE Transactions on Image Processing, 2010, 19, 1338-1348.	9.8	82
10	Medical Image Noise Reduction Using the Sylvesterâ€“Lyapunov Equation. IEEE Transactions on Image Processing, 2008, 17, 1522-1539.	9.8	77
11	Crater Detection by a Boosting Approach. IEEE Geoscience and Remote Sensing Letters, 2009, 6, 127-131.	3.1	73
12	Explainable skin lesion diagnosis using taxonomies. Pattern Recognition, 2021, 110, 107413.	8.1	63
13	Robust Shape Tracking With Multiple Models in Ultrasound Images. IEEE Transactions on Image Processing, 2008, 17, 392-406.	9.8	61
14	Development of a clinically oriented system for melanoma diagnosis. Pattern Recognition, 2017, 69, 270-285.	8.1	53
15	Adaptive snakes using the EM algorithm. IEEE Transactions on Image Processing, 2005, 14, 1678-1686.	9.8	48
16	Tracking Groups of Pedestrians in Video Sequences. , 2003, , .		43
17	A Rayleigh reconstruction/interpolation algorithm for 3D ultrasound. Pattern Recognition Letters, 2000, 21, 917-926.	4.2	37
18	A system for the detection of melanomas in dermoscopy images using shape and symmetry features. Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization, 2017, 5, 127-137.	1.9	37

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19	Automatic segmentation of the lungs using robust level sets. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 4414-7.	0.5	36
20	Shape alignment " Optimal initial point and pose estimation. Pattern Recognition Letters, 1997, 18, 49-53.	4.2	32
21	Activity Recognition Using a Mixture of Vector Fields. IEEE Transactions on Image Processing, 2013, 22, 1712-1725.	9.8	32
22	Robust Shape Tracking in the Presence of Cluttered Background. IEEE Transactions on Multimedia, 2004, 6, 852-861.	7.2	28
23	Improving dermoscopy image analysis using color constancy. , 2014, , .		28
24	Fast segmentation of the left ventricle in cardiac MRI using dynamic programming. Computer Methods and Programs in Biomedicine, 2018, 154, 9-23.	4.7	27
25	Frequency-varying sinusoidal modeling of speech. IEEE Transactions on Acoustics, Speech, and Signal Processing, 1989, 37, 763-765.	2.0	26
26	Deep Learning For Skin Cancer Diagnosis With Hierarchical Architectures. , 2019, , .		26
27	Melanoma detection algorithm based on feature fusion. , 2015, 2015, 2653-6.		25
28	Bag-of-Features Classification Model for the Diagnose of Melanoma in Dermoscopy Images Using Color and Texture Descriptors. Lecture Notes in Computer Science, 2013, , 547-555.	1.3	25
29	On the role of texture and color in the classification of dermoscopy images. , 2012, 2012, 4402-5.		24
30	2D Segmentation Using a Robust Active Shape Model With the EM Algorithm. IEEE Transactions on Image Processing, 2015, 24, 2592-2601.	9.8	24
31	Automated Detection of Martian Dune Fields. IEEE Geoscience and Remote Sensing Letters, 2011, 8, 626-630.	3.1	23
32	A Bag-of-Features Approach for the Classification of Melanomas in Dermoscopy Images: The Role of Color and Texture Descriptors. Series in Bioengineering, 2014, , 49-69.	0.6	23
33	Automatic Estimation of Multiple Motion Fields From Video Sequences Using a Region Matching Based Approach. IEEE Transactions on Multimedia, 2014, 16, 1-14.	7.2	21
34	A fuzzy algorithm for curve and surface alignment. Pattern Recognition Letters, 1998, 19, 797-803.	4.2	20
35	Unmanned aircraft systems in maritime operations: Challenges addressed in the scope of the SEAGULL project. , 2015, , .		20
36	Joint image registration and volume reconstruction for 3D ultrasound. Pattern Recognition Letters, 2003, 24, 791-800.	4.2	19

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37	Color identification in dermoscopy images using Gaussian mixture models. , 2014, , .		19
38	Deep Attention Model for the Hierarchical Diagnosis of Skin Lesions. , 2019, , .		19
39	A multiscale algorithm for three-dimensional free-hand ultrasound. Ultrasound in Medicine and Biology, 2002, 28, 1029-1040.	1.5	18
40	Comparison of Segmentation Methods for Automatic Diagnosis of Dermoscopy Images. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 6573-6.	0.5	18
41	Visual inspection of a combustion process in a thermoelectric plant. Signal Processing, 2000, 80, 1577-1589.	3.7	17
42	Compensation of log-compressed images for 3-D ultrasound. Ultrasound in Medicine and Biology, 2003, 29, 239-253.	1.5	17
43	Evaluation of Color Based Keypoints and Features for the Classification of Melanomas Using the Bag-of-Features Model. Lecture Notes in Computer Science, 2013, , 40-49.	1.3	17
44	Clinically inspired analysis of dermoscopy images using a generative model. Computer Vision and Image Understanding, 2016, 151, 124-137.	4.7	16
45	Diagnosis of Alzheimer's disease using 3D local binary patterns. Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization, 2013, 1, 2-12.	1.9	15
46	Trajectory analysis in natural images using mixtures of vector fields. , 2009, , .		14
47	Detecting the pigment network in dermoscopy images: A directional approach. , 2011, 2011, 5120-3.		14
48	Automatic segmentation of the lungs using multiple active contours and outlier model. , 2006, 2006, 3122-5.		13
49	Modeling and Classifying Human Activities From Trajectories Using a Class of Space-Varying Parametric Motion Fields. IEEE Transactions on Image Processing, 2013, 22, 2066-2080.	9.8	13
50	A new ASM framework for left ventricle segmentation exploring slice variability in cardiac MRI volumes. Neural Computing and Applications, 2017, 28, 2489-2500.	5.6	13
51	Sparse motion fields for trajectory prediction. Pattern Recognition, 2021, 110, 107631.	8.1	13
52	Recognition of human activities using space dependent switched dynamical models. , 2005, , .		12
53	An algorithm for the detection of vessels in aerial images. , 2014, , .		12
54	Improving the robustness of parametric shape tracking with switched multiple models. Pattern Recognition, 2002, 35, 2711-2718.	8.1	11

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55	Crater Delineation by Dynamic Programming. IEEE Geoscience and Remote Sensing Letters, 2015, 12, 1581-1585.	3.1	11
56	CELP and sinusoidal coders: Two solutions for speech coding at 4.8â€“9.6 kbps. Speech Communication, 1990, 9, 389-400.	2.8	10
57	Optimal and suboptimal shape tracking based on multiple switched dynamic models. Image and Vision Computing, 2001, 19, 539-550.	4.5	10
58	Advances in automated detection of sand dunes on Mars. Earth Surface Processes and Landforms, 2013, 38, 275-283.	2.5	10
59	Segmentation of the left ventricle in cardiac MRI using a probabilistic data association active shape model. , 2015, 2015, 7304-7.		10
60	The Role of Keypoint Sampling on the Classification of Melanomas in Dermoscopy Images Using Bag-of-Features. Lecture Notes in Computer Science, 2013, , 715-723.	1.3	10
61	Hybrid harmonic coding of speech at low bit-rates. Speech Communication, 1994, 14, 231-247.	2.8	9
62	Independent increment processes for human motion recognition. Computer Vision and Image Understanding, 2008, 109, 126-138.	4.7	9
63	Towards an automatic bag-of-features model for the classification of dermoscopy images: The influence of segmentation. , 2013, , .		9
64	Automatic 3-D Segmentation of Endocardial Border of the Left Ventricle From Ultrasound Images. IEEE Journal of Biomedical and Health Informatics, 2015, 19, 339-348.	6.3	9
65	Harmonic coding - state of the art and future trends. Speech Communication, 1988, 7, 239-245.	2.8	8
66	Learning switching dynamic models for objects tracking. Pattern Recognition, 2004, 37, 1841-1853.	8.1	8
67	Alternative feature extraction methods in 3D brain image-based diagnosis of Alzheimer's Disease. , 2012, , .		8
68	Manifold Learning for Object Tracking With Multiple Nonlinear Models. IEEE Transactions on Image Processing, 2014, 23, 1593-1605.	9.8	8
69	Image Reconstruction using the Benford Law. , 2006, , .		7
70	3D brain image-based diagnosis of Alzheimer's disease: Bringing medical vision into feature selection. , 2012, , .		7
71	On the role of shape in the detection of melanomas. , 2013, , .		7
72	Efficient selection of non-redundant features for the diagnosis of Alzheimer'S disease. , 2013, , .		7

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73	Detection and Delineation of Sorted Stone Circles in Antarctica. Remote Sensing, 2020, 12, 160.	4.0	7
74	Minimum total variation in 3D ultrasound reconstruction. , 2005, , .		6
75	Level set segmentation of dermoscopy images. , 2008, , .		6
76	Control of neuromuscular blockade with Gaussian process models. Biomedical Signal Processing and Control, 2013, 8, 244-254.	5.7	6
77	A sparse approach to pedestrian trajectory modeling using multiple motion fields. , 2017, , .		6
78	What Is the Role of Color in Dermoscopy Analysis?. Lecture Notes in Computer Science, 2013, , 819-826.	1.3	6
79	Using middle level features for robust shape tracking. Pattern Recognition Letters, 2003, 24, 295-307.	4.2	5
80	Image Denoising Using the Lyapunov Equation from Non-uniform Samples. Lecture Notes in Computer Science, 2006, , 351-358.	1.3	5
81	A Fast MAP Algorithm for 3D Ultrasound. Lecture Notes in Computer Science, 2001, , 63-74.	1.3	5
82	Adaptive control of the ball and beam plant in the presence of sensor measure outliers. , 2002, , .		4
83	Estimation of the Bayesian network architecture for object tracking in video sequences. , 2004, , .		4
84	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.	0.5	4
85	An Improved EM-method for the Estimation of Transition Probabilities in Multiple Model Switching Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 374-378.	0.4	4
86	Classification of complex pedestrian activities from trajectories. , 2010, , .		4
87	Extending local binary patterns to 3D for the diagnosis of Alzheimer's Disease. , 2013, , .		4
88	Information Geometric Algorithm for Estimating Switching Probabilities in Space-Varying HMM. IEEE Transactions on Image Processing, 2014, 23, 5263-5273.	9.8	4
89	A clinically oriented system for melanoma diagnosis using a color representation. , 2015, 2015, 7462-5.		4
90	Fast and accurate segmentation of the LV in MR volumes using a deformable model with dynamic programming. , 2017, , .		4

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91	The Papoulis-Gerchberg Algorithm with Unknown Signal Bandwidth. Lecture Notes in Computer Science, 2006, , 436-445.	1.3	4
92	A Robust Deformable Model for 3D Segmentation of the Left Ventricle from Ultrasound Data. Springer Proceedings in Mathematics and Statistics, 2013, , 163-178.	0.2	4
93	Automated Detection of Sand Dunes on Mars. Lecture Notes in Computer Science, 2010, , 306-315.	1.3	4
94	What Is the Role of Color Symmetry in the Detection of Melanomas?. Lecture Notes in Computer Science, 2013, , 1-10.	1.3	4
95	A HMM approach to the estimation of random trajectories on manifolds. Signal Processing, 2002, 82, 1205-1214.	3.7	3
96	The mean shift algorithm and the unified framework. , 2004, , .		3
97	Non-Linear Dimension Reduction with Tangent Bundle Approximation. , 0, , .		3
98	Offline Bayesian Identification of Jump Markov Nonlinear Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 7761-7766.	0.4	3
99	Image super-segmentation: Segmentation with multiple labels from shuffled observations. , 2011, , .		3
100	An Algorithm for the Delineation of Craters in Very High Resolution Images of Mars Surface. Lecture Notes in Computer Science, 2013, , 213-220.	1.3	3
101	A robust active shape model using an expectation-maximization framework. , 2014, , .		3
102	Moving horizon estimation of pedestrian interactions using multiple velocity fields. Signal, Image and Video Processing, 2015, 9, 1669-1677.	2.7	3
103	A new robust active shape model formulation for cardiac MRI segmentation. , 2016, , .		3
104	An unmanned aircraft system for maritime operations. International Journal of Advanced Robotic Systems, 2018, 15, 172988141878633.	2.1	3
105	Local Features Applied to Dermoscopy Images: Bag-of-Features versus Sparse Coding. Lecture Notes in Computer Science, 2017, , 528-536.	1.3	3
106	Delineation of Impact Craters by a Mathematical Morphology Based Approach. Lecture Notes in Computer Science, 2013, , 717-725.	1.3	3
107	A Comparison of Two Low Bit Rate Image Coders. European Transactions on Telecommunications, 1992, 3, 599-603.	1.2	2
108	An adaptive potential for robust shape estimation. Image and Vision Computing, 2003, 21, 1107-1116.	4.5	2

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109	Multiple active contour models based on the EM algorithm. , 2005, , .		2
110	Discriminative model selection for object motion recognition. , 2010, , .		2
111	Improved Gradient Vector Flow for robust shape estimation in medical imaging. , 2010, 2010, 4809-12.		2
112	Discriminative model selection using a modified Bayesian criterion: Application to trajectory modeling. , 2011, , .		2
113	A system for the automatic detection of pigment network. , 2012, , .		2
114	Robust 3D Active Shape Model for the Segmentation of the Left Ventricle in MRI. Lecture Notes in Computer Science, 2015, , 283-290.	1.3	2
115	An information geometric framework for the optimization on a discrete probability spaces: Application to human trajectory classification. Neurocomputing, 2015, 150, 155-162.	5.9	2
116	Estimation of Space-Varying Covariance Matrices. , 2018, , .		2
117	Combining an Active Shape and Motion Models for Object Segmentation in Image Sequences. , 2018, , .		2
118	Tracking the Human Body Using Multiple Predictors. Lecture Notes in Computer Science, 2002, , 155-164.	1.3	2
119	Detection of Stone Circles in Periglacial Regions of Antarctica in UAV Datasets. Lecture Notes in Computer Science, 2019, , 279-288.	1.3	2
120	What Is the Role of Annotations in the Detection of Dermoscopic Structures?. Lecture Notes in Computer Science, 2019, , 3-11.	1.3	2
121	A link between image-based and feature-based active contours. Signal Processing, 1998, 67, 271-278.	3.7	1
122	Shape Tracking Using Centroid-Based Methods. Lecture Notes in Computer Science, 2001, , 576-591.	1.3	1
123	Tracking with Bayesian networks: extension to arbitrary topologies. , 2005, , .		1
124	Corrections to "Adaptive Snakes Using the EM Algorithm". IEEE Transactions on Image Processing, 2006, 15, 788-788.	9.8	1
125	A Method for the Dynamic Analysis of the Heart Using a Lyapounov Based Denoising Algorithm. , 2006, 2006, 4828-31.		1
126	Semi-Supervised Learning of Switched Dynamical Models for Classification of Human Activities in Surveillance Applications. , 2007, , .		1

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127	Unsupervised learning of motion patterns using generative models. , 2008, , .		1
128	Flexible trajectory modeling using a mixture of parametric motion fields for video surveillance. , 2011, , .		1
129	A class of space-varying parametric motion fields for human activity recognition. , 2012, , .		1
130	A velocity field approach to the detection of pedestrian interactions. , 2013, , .		1
131	3D left ventricular segmentation in echocardiography using a probabilistic data association deformable model. , 2013, , .		1
132	Performance evaluation of point matching algorithms for left ventricle motion analysis in MRI. , 2013, 2013, 4398-401.		1
133	Clustering of Gaussian Random Vector Fields in Multiple Trajectory Modelling. , 2018, , .		1
134	Multiple Agents Representation Using Motion Fields. , 2019, , .		1
135	Multiple Motion Fields for Multiple Types of Agents. , 2019, , .		1
136	Description and Recognition of Activity Patterns Using Sparse Vector Fields. Lecture Notes in Computer Science, 2019, , 239-248.	1.3	1
137	Efficient Optimization Algorithm for Space-Variant Mixture of Vector Fields. Lecture Notes in Computer Science, 2013, , 79-88.	1.3	1
138	Estimation of Multiple Objects at Unknown Locations with Active Contours. Lecture Notes in Computer Science, 2007, , 372-379.	1.3	1
139	Tracking the Left Ventricle in Ultrasound Images Based on Total Variation Denoising. Lecture Notes in Computer Science, 2007, , 628-636.	1.3	1
140	Model-Agnostic Temporal Regularizer for Object Localization Using Motion Fields. IEEE Transactions on Image Processing, 2022, 31, 2478-2487.	9.8	1
141	A Fast MAP Algorithm Using High Order Gibbs Priors. , 0, , .		0
142	Level set segmentation with outlier rejection. , 2008, , .		0
143	Improving the robustness of gradient vector flow in cluttered images. , 2010, , .		0
144	Recursive Bayesian identification of nonlinear autonomous systems. , 2012, , .		0

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145	Alignment of velocity fields for video surveillance. Pattern Recognition Letters, 2012, 33, 1632-1637.	4.2	0
146	Robust Deformable Models for 2D and 3D Shape Estimation. Lecture Notes in Computational Vision and Biomechanics, 2013, , 169-185.	0.5	0
147	Non-rigid Object Segmentation Using Robust Active Shape Models. Lecture Notes in Computer Science, 2014, , 160-169.	1.3	0
148	Automated prediction of crater degradation degree. , 2016, , .		0
149	Improving a Switched Vector Field Model for Pedestrian Motion Analysis. Lecture Notes in Computer Science, 2018, , 3-13.	1.3	0
150	Distributed Estimation of Vector Fields. Lecture Notes in Computer Science, 2018, , 38-50.	1.3	0
151	The Fokker-Planck equation in estimation and control. IFAC-PapersOnLine, 2019, 52, 91-95.	0.9	0
152	A 3D Ultrasound System for Medical Diagnosis. Lecture Notes in Computer Science, 2003, , 893-901.	1.3	0
153	MAP Signal Reconstruction with Non Regular Grids. Lecture Notes in Computer Science, 2004, , 204-211.	1.3	0
154	Long Term Tracking of Pedestrians with Groups and Occlusions. , 2007, , 151-175.		0
155	Trajectory Modeling Using Mixtures of Vector Fields. Lecture Notes in Computer Science, 2009, , 40-47.	1.3	0
156	Trajectory Analysis Using Switched Motion Fields: A Parametric Approach. Lecture Notes in Computer Science, 2011, , 420-427.	1.3	0
157	Delineation of Martian Craters Based on Edge Maps and Dynamic Programming. Lecture Notes in Computer Science, 2014, , 433-440.	1.3	0
158	Robust Shape Estimation with Deformable Models. , 2009, , 57-76.		0
159	Diagnosis of Skin Cancer Using Hierarchical Neural Networks and Metadata. Lecture Notes in Computer Science, 2022, , 69-80.	1.3	0