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	Model-Agnostic Temporal Regularizer for Object Localization Using Motion Fields. IEEE Transactions on Image Processing, 2022, 31, 2478-2487.	9.8	1
2	Diagnosis ofÂSkin Cancer Using Hierarchical Neural Networks andÂMetadata. Lecture Notes in Computer Science, 2022, , 69-80.	1.3	0
3	Sparse motion fields for trajectory prediction. Pattern Recognition, 2021, 110, 107631.	8.1	13
4	Explainable skin lesion diagnosis using taxonomies. Pattern Recognition, 2021, 110, 107413.	8.1	63
5	Detection and Delineation of Sorted Stone Circles in Antarctica. Remote Sensing, 2020, 12, 160.	4.0	7
6	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
7	Multiple Agents Representation Using Motion Fields. , 2019, , .		1
8	Deep Learning For Skin Cancer Diagnosis With Hierarchical Architectures. , 2019, , .		26
9	Multiple Motion Fields for Multiple Types of Agents. , 2019, , .		1
10	The Fokker-Planck equation in estimation and control. IFAC-PapersOnLine, 2019, 52, 91-95.	0.9	0
11	Deep Attention Model for the Hierarchical Diagnosis of Skin Lesions. , 2019, , .		19
12	Description and Recognition of Activity Patterns Using Sparse Vector Fields. Lecture Notes in Computer Science, 2019, , 239-248.	1.3	1
13	Detection of Stone Circles in Periglacial Regions of Antarctica in UAV Datasets. Lecture Notes in Computer Science, 2019, , 279-288.	1.3	2
14	What Is the Role of Annotations in the Detection of Dermoscopic Structures?. Lecture Notes in Computer Science, 2019, , 3-11.	1.3	2
15	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
16	Estimation of Space-Varying Covariance Matrices. , 2018, , .		2
17	Clustering of Gaussian Random Vector Fields in Multiple Trajectory Modelling. , 2018, , .		1
18	Improving a Switched Vector Field Model for Pedestrian Motion Analysis. Lecture Notes in Computer Science, 2018, , 3-13.	1.3	0

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19	Distributed Estimation of Vector Fields. Lecture Notes in Computer Science, 2018, , 38-50.	1.3	0
20	An unmanned aircraft system for maritime operations. International Journal of Advanced Robotic Systems, 2018, 15, 172988141878633.	2.1	3
21	Combining an Active Shape and Motion Models for Object Segmentation in Image Sequences. , 2018, , .		2
22	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
23	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
24	Development of a clinically oriented system for melanoma diagnosis. Pattern Recognition, 2017, 69, 270-285.	8.1	53
25	A sparse approach to pedestrian trajectory modeling using multiple motion fields. , 2017, , .		6
26	Fast and accurate segmentation of the LV in MR volumes using a deformable model with dynamic programming. , 2017, , .		4
27	Local Features Applied to Dermoscopy Images: Bag-of-Features versus Sparse Coding. Lecture Notes in Computer Science, 2017, , 528-536.	1.3	3
28	Automated prediction of crater degradation degree. , 2016, , .		0
29	Clinically inspired analysis of dermoscopy images using a generative model. Computer Vision and Image Understanding, 2016, 151, 124-137.	4.7	16
30	A new robust active shape model formulation for cardiac MRI segmentation. , 2016, , .		3
31	Unmanned aircraft systems in maritime operations: Challenges addressed in the scope of the SEAGULL project. , 2015, , .		20
32	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
33	Segmentation of the left ventricle in cardiac MRI using a probabilistic data association active shape model. , 2015, 2015, 7304-7.		10
34	Melanoma detection algorithm based on feature fusion. , 2015, 2015, 2653-6.		25
35	A clinically oriented system for melanoma diagnosis using a color representation. , 2015, 2015, 7462-5.		4
36	2D Segmentation Using a Robust Active Shape Model With the EM Algorithm. IEEE Transactions on Image Processing, 2015, 24, 2592-2601.	9.8	24

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37	Crater Delineation by Dynamic Programming. IEEE Geoscience and Remote Sensing Letters, 2015, 12, 1581-1585.	3.1	11
38	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
39	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
40	Moving horizon estimation of pedestrian interactions using multiple velocity fields. Signal, Image and Video Processing, 2015, 9, 1669-1677.	2.7	3
41	A robust active shape model using an expectation-maximization framework. , 2014, , .		3
42	Color identification in dermoscopy images using Gaussian mixture models. , 2014, , .		19
43	Improving dermoscopy image analysis using color constancy. , 2014, , .		28
44	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
45	Manifold Learning for Object Tracking With Multiple Nonlinear Models. IEEE Transactions on Image Processing, 2014, 23, 1593-1605.	9.8	8
46	Improving Dermoscopy Image Classification Using Color Constancy. IEEE Journal of Biomedical and Health Informatics, 2014, 19, 1-1.	6.3	100
47	Information Geometric Algorithm for Estimating Switching Probabilities in Space-Varying HMM. IEEE Transactions on Image Processing, 2014, 23, 5263-5273.	9.8	4
48	An algorithm for the detection of vessels in aerial images. , 2014, , .		12
49	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
50	Non-rigid Object Segmentation Using Robust Active Shape Models. Lecture Notes in Computer Science, 2014, , 160-169.	1.3	0
51	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
52	Delineation of Martian Craters Based on Edge Maps and Dynamic Programming. Lecture Notes in Computer Science, 2014, , 433-440.	1.3	0
53	On the role of shape in the detection of melanomas. , 2013, , .		7
54	A velocity field approach to the detection of pedestrian interactions. , 2013, , .		1

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55	3D left ventricular segmentation in echocardiography using a probabilistic data association deformable model. , 2013, , .		1
56	Towards an automatic bag-of-features model for the classification of dermoscopy images: The influence of segmentation. , 2013, , .		9
57	Extending local binary patterns to 3D for the diagnosis of Alzheimer's Disease. , 2013, , .		4
58	Activity Recognition Using a Mixture of Vector Fields. IEEE Transactions on Image Processing, 2013, 22, 1712-1725.	9.8	32
59	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
60	Control of neuromuscular blockade with Gaussian process models. Biomedical Signal Processing and Control, 2013, 8, 244-254.	5.7	6
61	Robust Deformable Models for 2D and 3D Shape Estimation. Lecture Notes in Computational Vision and Biomechanics, 2013, , 169-185.	0.5	0
62	PH² - A dermoscopic image database for research and benchmarking. , 2013, 2013, 5437-40.		426
63	Advances in automated detection of sand dunes on Mars. Earth Surface Processes and Landforms, 2013, 38, 275-283.	2.5	10
64	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
65	Efficient selection of non-redundant features for the diagnosis of Alzheimer'S disease. , 2013, , .		7
66	Performance evaluation of point matching algorithms for left ventricle motion analysis in MRI. , 2013, 2013, 4398-401.		1
67	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
68	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
69	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
70	Efficient Optimization Algorithm for Space-Variant Mixture of Vector Fields. Lecture Notes in Computer Science, 2013, , 79-88.	1.3	1
71	What Is the Role of Color in Dermoscopy Analysis?. Lecture Notes in Computer Science, 2013, , 819-826.	1.3	6
72	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

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73	What Is the Role of Color Symmetry in the Detection of Melanomas?. Lecture Notes in Computer Science, 2013, , 1-10.	1.3	4
74	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
75	Delineation of Impact Craters by a Mathematical Morphology Based Approach. Lecture Notes in Computer Science, 2013, , 717-725.	1.3	3
76	A class of space-varying parametric motion fields for human activity recognition. , 2012, , .		1
77	Recursive Bayesian identification of nonlinear autonomous systems. , 2012, , .		0
78	Alignment of velocity fields for video surveillance. Pattern Recognition Letters, 2012, 33, 1632-1637.	4.2	0
79	A system for the automatic detection of pigment network. , 2012, , .		2
80	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
81	3D brain image-based diagnosis of Alzheimer's disease: Bringing medical vision into feature selection. , 2012, , .		7
82	Alternative feature extraction methods in 3D brain image-based diagnosis of Alzheimer's Disease. , 2012, , .		8
83	On the role of texture and color in the classification of dermoscopy images. , 2012, 2012, 4402-5.		24
84	Flexible trajectory modeling using a mixture of parametric motion fields for video surveillance. , 2011, , .		1
85	Detecting the pigment network in dermoscopy images: A directional approach. , 2011, 2011, 5120-3.		14
86	Offline Bayesian Identification of Jump Markov Nonlinear Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 7761-7766.	0.4	3
87	Automated Detection of Martian Dune Fields. IEEE Geoscience and Remote Sensing Letters, 2011, 8, 626-630.	3.1	23
88	Image super-segmentation: Segmentation with multiple labels from shuffled observations. , 2011, , .		3
89	Discriminative model selection using a modified Bayesian criterion: Application to trajectory modeling. , 2011, , .		2
90	Trajectory Analysis Using Switched Motion Fields: A Parametric Approach. Lecture Notes in Computer Science, 2011, , 420-427.	1.3	0

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91	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
92	Discriminative model selection for object motion recognition. , 2010, , .		2
93	Improving the robustness of gradient vector flowin cluttered images. , 2010, , .		0
94	Classification of complex pedestrian activities from trajectories. , 2010, , .		4
95	Improved Gradient Vector Flow for robust shape estimation in medical imaging. , 2010, 2010, 4809-12.		2
96	Trajectory Classification Using Switched Dynamical Hidden Markov Models. IEEE Transactions on Image Processing, 2010, 19, 1338-1348.	9.8	82
97	Automated Detection of Sand Dunes on Mars. Lecture Notes in Computer Science, 2010, , 306-315.	1.3	4
98	Trajectory analysis in natural images using mixtures of vector fields. , 2009, , .		14
99	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
100	Crater Detection by a Boosting Approach. IEEE Geoscience and Remote Sensing Letters, 2009, 6, 127-131.	3.1	73
101	Trajectory Modeling Using Mixtures of Vector Fields. Lecture Notes in Computer Science, 2009, , 40-47.	1.3	0
102	Robust Shape Estimation with Deformable Models. , 2009, , 57-76.		0
103	Independent increment processes for human motion recognition. Computer Vision and Image Understanding, 2008, 109, 126-138.	4.7	9
104	Medical Image Noise Reduction Using the Sylvesterâ€“Lyapunov Equation. IEEE Transactions on Image Processing, 2008, 17, 1522-1539.	9.8	77
105	Unsupervised learning of motion patterns using generative models. , 2008, , .		1
106	Robust Shape Tracking With Multiple Models in Ultrasound Images. IEEE Transactions on Image Processing, 2008, 17, 392-406.	9.8	61
107	Level set segmentation of dermoscopy images. , 2008, , .		6
108	Level set segmentation with outlier rejection. , 2008, , .		0

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109	Semi-Supervised Learning of Switched Dynamical Models for Classification of Human Activities in Surveillance Applications. , 2007, , .		1
110	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
111	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
112	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
113	Long Term Tracking of Pedestrians with Groups and Occlusions. , 2007, , 151-175.		0
114	Estimation of Multiple Objects at Unknown Locations with Active Contours. Lecture Notes in Computer Science, 2007, , 372-379.	1.3	1
115	Tracking the Left Ventricle in Ultrasound Images Based on Total Variation Denoising. Lecture Notes in Computer Science, 2007, , 628-636.	1.3	1
116	Automatic segmentation of the lungs using multiple active contours and outlier model. , 2006, 2006, 3122-5.		13
117	Corrections to â€œAdaptive Snakes Using the EM Algorithmâ€• IEEE Transactions on Image Processing, 2006, 15, 788-788.	9.8	1
118	Performance evaluation of object detection algorithms for video surveillance. IEEE Transactions on Multimedia, 2006, 8, 761-774.	7.2	202
119	A Method for the Dynamic Analysis of the Heart Using a Lyapounov Based Denoising Algorithm. , 2006, 2006, 4828-31.		1
120	Image Denoising Using the Lyapunov Equation from Non-uniform Samples. Lecture Notes in Computer Science, 2006, , 351-358.	1.3	5
121	Image Reconstruction using the Benford Law. , 2006, , .		7
122	The Papoulis-Gerchberg Algorithm with Unknown Signal Bandwidth. Lecture Notes in Computer Science, 2006, , 436-445.	1.3	4
123	Minimum total variation in 3D ultrasound reconstruction. , 2005, , .		6
124	Recognition of human activities using space dependent switched dynamical models. , 2005, , .		12
125	Multiple active contour models based on the EM algorithm. , 2005, , .		2
126	Tracking with Bayesian networks: extension to arbitrary topologies. , 2005, , .		1

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127	Adaptive snakes using the EM algorithm. IEEE Transactions on Image Processing, 2005, 14, 1678-1686.	9.8	48
128	The mean shift algorithm and the unified framework. , 2004, , .		3
129	Estimation of the Bayesian network architecture for object tracking in video sequences. , 2004, , .		4
130	Learning switching dynamic models for objects tracking. Pattern Recognition, 2004, 37, 1841-1853.	8.1	8
131	Robust Shape Tracking in the Presence of Cluttered Background. IEEE Transactions on Multimedia, 2004, 6, 852-861.	7.2	28
132	MAP Signal Reconstruction with Non Regular Grids. Lecture Notes in Computer Science, 2004, , 204-211.	1.3	0
133	An adaptive potential for robust shape estimation. Image and Vision Computing, 2003, 21, 1107-1116.	4.5	2
134	Joint image registration and volume reconstruction for 3D ultrasound. Pattern Recognition Letters, 2003, 24, 791-800.	4.2	19
135	Using middle level features for robust shape tracking. Pattern Recognition Letters, 2003, 24, 295-307.	4.2	5
136	Compensation of log-compressed images for 3-D ultrasound. Ultrasound in Medicine and Biology, 2003, 29, 239-253.	1.5	17
137	Tracking Groups of Pedestrians in Video Sequences. , 2003, , .		43
138	A 3D Ultrasound System for Medical Diagnosis. Lecture Notes in Computer Science, 2003, , 893-901.	1.3	0
139	Adaptive control of the ball and beam plant in the presence of sensor measure outliers. , 2002, , .		4
140	A HMM approach to the estimation of random trajectories on manifolds. Signal Processing, 2002, 82, 1205-1214.	3.7	3
141	A multiscale algorithm for three-dimensional free-hand ultrasound. Ultrasound in Medicine and Biology, 2002, 28, 1029-1040.	1.5	18
142	Improving the robustness of parametric shape tracking with switched multiple models. Pattern Recognition, 2002, 35, 2711-2718.	8.1	11
143	Tracking the Human Body Using Multiple Predictors. Lecture Notes in Computer Science, 2002, , 155-164.	1.3	2
144	Optimal and suboptimal shape tracking based on multiple switched dynamic models. Image and Vision Computing, 2001, 19, 539-550.	4.5	10

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145	Shape Tracking Using Centroid-Based Methods. Lecture Notes in Computer Science, 2001, , 576-591.	1.3	1
146	A Fast MAP Algorithm for 3D Ultrasound. Lecture Notes in Computer Science, 2001, , 63-74.	1.3	5
147	A Rayleigh reconstruction/interpolation algorithm for 3D ultrasound. Pattern Recognition Letters, 2000, 21, 917-926.	4.2	37
148	Visual inspection of a combustion process in a thermoelectric plant. Signal Processing, 2000, 80, 1577-1589.	3.7	17
149	A fuzzy algorithm for curve and surface alignment. Pattern Recognition Letters, 1998, 19, 797-803.	4.2	20
150	A link between image-based and feature-based active contours. Signal Processing, 1998, 67, 271-278.	3.7	1
151	Shape alignment â€" Optimal initial point and pose estimation. Pattern Recognition Letters, 1997, 18, 49-53.	4.2	32
152	A class of constrained clustering algorithms for object boundary extraction. IEEE Transactions on Image Processing, 1996, 5, 1507-1521.	9.8	97
153	Hybrid harmonic coding of speech at low bit-rates. Speech Communication, 1994, 14, 231-247.	2.8	9
154	A Comparison of Two Low Bit Rate Image Coders. European Transactions on Telecommunications, 1992, 3, 599-603.	1.2	2
155	CELP and sinusoidal coders: Two solutions for speech coding at 4.8â€"9.6 kbps. Speech Communication, 1990, 9, 389-400.	2.8	10
156	Frequency-varying sinusoidal modeling of speech. IEEE Transactions on Acoustics, Speech, and Signal Processing, 1989, 37, 763-765.	2.0	26
157	Harmonic coding - state of the art and future trends. Speech Communication, 1988, 7, 239-245.	2.8	8
158	A Fast MAP Algorithm Using High Order Gibbs Priors. , 0, , .		0
159	Non-Linear Dimension Reduction with Tangent Bundle Approximation. , 0, , .		3