Xavier LladÃ³ Bardera

List of Publications by Year
in descending order

135 papers	5,100 citations	117625 34 h-index	102487 66 g-index
140 all docs	140 docs citations	140 times ranked	5616 citing authors

#	Article	IF	Citations
1	A state of the art in structured light patterns for surface profilometry. Pattern Recognition, 2010, 43, 2666-2680.	8.1	691
2	A review of atlas-based segmentation for magnetic resonance brain images. Computer Methods and Programs in Biomedicine, 2011, 104, e158-e177.	4.7	336
3	Improving automated multiple sclerosis lesion segmentation with a cascaded 3D convolutional neural network approach. NeuroImage, 2017, 155, 159-168.	4.2	287
4	Deep convolutional neural networks for brain image analysis on magnetic resonance imaging: a review. Artificial Intelligence in Medicine, 2019, 95, 64-81.	6.5	257
5	Segmentation of multiple sclerosis lesions in brain MRI: A review of automated approaches. Information Sciences, 2012, 186, 164-185.	6.9	182
6	Objective Evaluation of Multiple Sclerosis Lesion Segmentation using a Data Management and Processing Infrastructure. Scientific Reports, 2018, 8, 13650.	3.3	171
7	A survey of prostate segmentation methodologies in ultrasound, magnetic resonance and computed tomography images. Computer Methods and Programs in Biomedicine, 2012, 108, 262-287.	4.7	168
8	Standardized Assessment of Automatic Segmentation of White Matter Hyperintensities and Results of the WMH Segmentation Challenge. IEEE Transactions on Medical Imaging, 2019, 38, 2556-2568.	8.9	165
9	Automatic mass detection in mammograms using deep convolutional neural networks. Journal of Medical Imaging, 2019, 6, 1.	1.5	114
10	A review on brain structures segmentation in magnetic resonance imaging. Artificial Intelligence in Medicine, 2016, 73, 45-69.	6.5	101
11	Automatic microcalcification and cluster detection for digital and digitised mammograms. Knowledge-Based Systems, 2012, 28, 68-75.	7.1	91
12	One-shot domain adaptation in multiple sclerosis lesion segmentation using convolutional neural networks. NeuroImage: Clinical, 2019, 21, 101638.	2.7	91
13	Automated sub-cortical brain structure segmentation combining spatial and deep convolutional features. Medical Image Analysis, 2018, 48, 177-186.	11.6	90
14	Deep learning for mass detection in Full Field Digital Mammograms. Computers in Biology and Medicine, 2020, 121, 103774.	7.0	83
15	A textural approach for mass false positive reduction in mammography. Computerized Medical Imaging and Graphics, 2009, 33, 415-422.	5.8	80
16	Automated detection of multiple sclerosis lesions in serial brain MRI. Neuroradiology, 2012, 54, 787-807.	2.2	76
17	A toolbox for multiple sclerosis lesion segmentation. Neuroradiology, 2015, 57, 1031-1043.	2.2	76
18	A Qualitative Review on 3D Coarse Registration Methods. ACM Computing Surveys, 2015, 47, 1-36.	23.0	76

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19	Comparison of 10 brain tissue segmentation methods using revisited IBSR annotations. Journal of Magnetic Resonance Imaging, 2015, 41, 93-101.	3.4	76
20	Acute ischemic stroke lesion core segmentation in CT perfusion images using fully convolutional neural networks. Computers in Biology and Medicine, 2019, 115, 103487.	7.0	69
21	A Method for 6D Pose Estimation of Free-Form Rigid Objects Using Point Pair Features on Range Data. Sensors, 2018, 18, 2678.	3.8	67
22	False Positive Reduction in Mammographic Mass Detection Using Local Binary Patterns. , 2007, 10, 286-293.		66
23	Improving the detection of autism spectrum disorder by combining structural and functional MRI information. NeuroImage: Clinical, 2020, 25, 102181.	2.7	59
24	A white matter lesion-filling approach to improve brain tissue volume measurements. NeuroImage: Clinical, 2014, 6, 86-92.	2.7	55
25	Automated tissue segmentation of MR brain images in the presence of white matter lesions. Medical Image Analysis, 2017, 35, 446-457.	11.6	55
26	Non-Rigid Metric Shape and Motion Recovery from Uncalibrated Images Using Priors. , 0, , .		51
27	A Statistical Approach for Breast Density Segmentation. Journal of Digital Imaging, 2010, 23, 527-537.	2.9	48
28	A subtraction pipeline for automatic detection of new appearing multiple sclerosis lesions in longitudinal studies. Neuroradiology, 2014, 56, 363-374.	2.2	47
29	A supervised learning framework of statistical shape and probability priors for automatic prostate segmentation in ultrasound images. Medical Image Analysis, 2013, 17, 587-600.	11.6	46
30	Multiple Sclerosis Lesion Synthesis in MRI Using an Encoder-Decoder U-NET. IEEE Access, 2019, 7, 25171-25184.	4.2	46
31	A review of source detection approaches in astronomical images. Monthly Notices of the Royal Astronomical Society, 2012, 422, 1674-1689.	4.4	41
32	Breast Density Analysis Using an Automatic Density Segmentation Algorithm. Journal of Digital Imaging, 2015, 28, 604-612.	2.9	40
33	A fully convolutional neural network for new T2-w lesion detection in multiple sclerosis. NeuroImage: Clinical, 2020, 25, 102149.	2.7	40
34	Automatic multiple sclerosis lesion detection in brain MRI by FLAIR thresholding. Computer Methods and Programs in Biomedicine, 2014, 115, 147-161.	4.7	39
35	A supervised framework with intensity subtraction and deformation field features for the detection of new T2-w lesions in multiple sclerosis. NeuroImage: Clinical, 2018, 17, 607-615.	2.7	39
36	A spline-based non-linear diffeomorphism for multimodal prostate registration. Medical Image Analysis, 2012, 16, 1259-1279.	11.6	37

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37	Revisiting Intensity-Based Image Registration Applied to Mammography. IEEE Transactions on Information Technology in Biomedicine, 2011, 15, 716-725.	3.2	36
38	Enhanced Local Subspace Affinity for feature-based motion segmentation. Pattern Recognition, 2011, 44, 454-470.	8.1	36
39	Supervised Domain Adaptation for Automatic Sub-cortical Brain Structure Segmentation with Minimal User Interaction. Scientific Reports, 2019, 9, 6742.	3.3	36
40	Acute and sub-acute stroke lesion segmentation from multimodal MRI. Computer Methods and Programs in Biomedicine, 2020, 194, 105521.	4.7	35
41	Feature extraction for underwater visual SLAM. , 2011, , .		33
42	Advanced MRI techniques: biomarkers in neuropsychiatric lupus. Lupus, 2017, 26, 510-516.	1.6	33
43	MARGA: Multispectral Adaptive Region Growing Algorithm for brain extraction on axial MRI. Computer Methods and Programs in Biomedicine, 2014, 113, 655-673.	4.7	32
44	Quantifying brain tissue volume in multiple sclerosis with automated lesion segmentation and filling. NeuroImage: Clinical, 2015, 9, 640-647.	2.7	31
45	Improved Automatic Detection of New T2 Lesions in Multiple Sclerosis Using Deformation Fields. American Journal of Neuroradiology, 2016, 37, 1816-1823.	2.4	30
46	BOOST: A supervised approach for multiple sclerosis lesion segmentation. Journal of Neuroscience Methods, 2014, 237, 108-117.	2.5	28
47	Quantitative Analysis of Patch-Based Fully Convolutional Neural Networks for Tissue Segmentation on Brain Magnetic Resonance Imaging. IEEE Access, 2019, 7, 89986-90002.	4.2	28
48	Eigendetection of masses considering false positive reduction and breast density information. Medical Physics, 2008, 35, 1840-1853.	3.0	22
49	A stepâ€byâ€step review on patientâ€specific biomechanical finite element models for breast MRI to xâ€ray mammography registration. Medical Physics, 2018, 45, e6-e31.	3.0	22
50	Non-rigid 3D Factorization for Projective Reconstruction. , 2005, , .		22
51	Hemorrhagic stroke lesion segmentation using a 3D U-Net with squeeze-and-excitation blocks. Computerized Medical Imaging and Graphics, 2021, 90, 101908.	5.8	21
52	Breast MRI and X-ray mammography registration using gradient values. Medical Image Analysis, 2019, 54, 76-87.	11.6	20
53	Evaluating the effect of multiple sclerosis lesions on automatic brain structure segmentation. NeuroImage: Clinical, 2017, 15, 228-238.	2.7	19
54	Automated Detection of Lupus White Matter Lesions in MRI. Frontiers in Neuroinformatics, 2016, 10, 33.	2.5	18

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55	Breast Density Segmentation: A Comparison of Clustering and Region Based Techniques. Lecture Notes in Computer Science, 2008, , 9-16.	1.3	17
56	Joint estimation of segmentation and structure from motion. Computer Vision and Image Understanding, 2013, 117, 113-129.	4.7	17
57	Lesion Segmentation in Automated 3D Breast Ultrasound: Volumetric Analysis. Ultrasonic Imaging, 2018, 40, 97-112.	2.6	17
58	Brain structure segmentation in the presence of multiple sclerosis lesions. NeuroImage: Clinical, 2019, 22, 101709.	2.7	15
59	Non-rigid Face Modelling Using Shape Priors. Lecture Notes in Computer Science, 2005, , 97-108.	1.3	15
60	Non-rigid metric reconstruction from perspective cameras. Image and Vision Computing, 2010, 28, 1339-1353.	4.5	14
61	Feature based slam using side-scan salient objects. , 2010, , .		14
62	Statistical shape and texture model of quadrature phase information for prostate segmentation. International Journal of Computer Assisted Radiology and Surgery, 2012, 7, 43-55.	2.8	14
63	Influence of Using Manual or Automatic Breast Density Information in a Mass Detection CAD System. Academic Radiology, 2010, 17, 877-883.	2.5	13
64	Prostate multimodality image registration based on B-splines and quadrature local energy. International Journal of Computer Assisted Radiology and Surgery, 2012, 7, 445-454.	2.8	13
65	One-shot segmentation of breast, pectoral muscle, and background in digitised mammograms. , 2014, , .		13
66	Intensity Based Methods for Brain MRI Longitudinal Registration. A Study on Multiple Sclerosis Patients. Neuroinformatics, 2014, 12, 365-379.	2.8	13
67	Adaptive Motion Segmentation Algorithm Based on the Principal Angles Configuration. Lecture Notes in Computer Science, 2011, , 15-26.	1.3	13
68	Prostate Segmentation with Texture Enhanced Active Appearance Model. , 2010, , .		12
69	Evaluating the Effects of White Matter Multiple Sclerosis Lesions on the Volume Estimation of 6 Brain Tissue Segmentation Methods. American Journal of Neuroradiology, 2015, 36, 1109-1115.	2.4	12
70	Colour Texture Segmentation by Region-Boundary Cooperation. Lecture Notes in Computer Science, 2004, , 250-261.	1.3	12
71	Texture Guided Active Appearance Model Propagation for Prostate Segmentation. Lecture Notes in Computer Science, 2010, , 111-120.	1.3	11
72	False Positive Reduction in Breast Mass Detection Using Two-Dimensional PCA. Lecture Notes in Computer Science, 2007, , 154-161.	1.3	11

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73	A Thin-Plate Spline Based Multimodal Prostate Registration with Optimal Correspondences. , 2010, , .		10
74	Reconstruction of non-rigid 3D shapes from stereo-motion. Pattern Recognition Letters, 2011, 32, 1020-1028.	4.2	9
75	Prostate segmentation with local binary patterns guided active appearance models. , 2011, , .		9
76	Comparison of registration methods using mamographic images. , 2010, , .		8
77	Selective Submap Joining for underwater large scale 6-DOF SLAM. , 2010, , .		7
78	A probabilistic framework for automatic prostate segmentation with a statistical model of shape and appearance. , 2011, , .		7
79	A hybrid framework of multiple active appearance models and global registration for 3D prostate segmentation in MRI. , 2012, , .		7
80	Assessing the Accuracy and Reproducibility of <scp>PARIETAL</scp>: A Deep Learning Brain Extraction Algorithm. Journal of Magnetic Resonance Imaging, 2021, , .	3.4	7
81	Automatic Diagnosis of Masses by Using Level set Segmentation and Shape Description. , 2010, , .		6
82	Segmenting extended structures in radio astronomical images by filtering bright compact sources and using wavelets decomposition. , 2011, , .		6
83	A collection of challenging motion segmentation benchmark datasets. Pattern Recognition, 2017, 61, 1-14.	8.1	6
84	A Supervised Learning Framework for Automatic Prostate Segmentation in Trans Rectal Ultrasound Images. Lecture Notes in Computer Science, 2012, , 190-200.	1.3	6
85	Multi-channel registration of fractional anisotropy and T1-weighted images in the presence of atrophy: application to multiple sclerosis. Functional Neurology, 2015, 30, 245-56.	1.3	6
86	Overview of surface registration techniques including loop minimization for three-dimensional modeling and visual inspection. Journal of Electronic Imaging, 2008, 17, 031103.	0.9	5
87	Multimodal Prostate Registration Using Thin-Plate Splines from Automatic Correspondences. , 2010, , .		5
88	Local map update for large scale SLAM. Electronics Letters, 2010, 46, 564.	1.0	5
89	A fully automated pipeline for brain structure segmentation in multiple sclerosis. NeuroImage: Clinical, 2020, 27, 102306.	2.7	5
90	Generating Longitudinal Atrophy Evaluation Datasets on Brain Magnetic Resonance Images Using Convolutional Neural Networks and Segmentation Priors. Neuroinformatics, 2021, 19, 477-492.	2.8	5

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91	Transductive Transfer Learning for Domain Adaptation in Brain Magnetic Resonance Image Segmentation. Frontiers in Neuroscience, 2021, 15, 608808.	2.8	5
92	Enhanced Model Selection for motion segmentation. , 2009, , .		4
93	Detecting Faint Compact Sources Using Local Features and a Boosting Approach. , 2010, , .		4
94	A supervised micro-calcification detection approach in digitised mammograms. , 2010, , .		4
95	A Boosting Based Approach for Automatic Micro-calcification Detection. Lecture Notes in Computer Science, 2010, , 251-258.	1.3	4
96	Simultaneous motion segmentation and Structure from Motion. , 2011, , .		4
97	Simultaneous detection and segmentation for generic objects. , 2011, , .		4
98	A comparison of thin-plate splines with automatic correspondences and B-splines with uniform grids for multimodal prostate registration. Proceedings of SPIE, 2011, , .	0.8	4
99	Spectral clustering of shape and probability prior models for automatic prostate segmentation. , 2012, 2012, 2335-8.		4
100	A quantitative analysis of source detection approaches in optical, infrared, and radio astronomical images. Experimental Astronomy, 2013, 36, 591-629.	3.7	4
101	Multimodal Breast Parenchymal Patterns Correlation Using a Patient-Specific Biomechanical Model. IEEE Transactions on Medical Imaging, 2018, 37, 712-723.	8.9	4
102	Detecting Abnormal Mammographic Cases in Temporal Studies Using Image Registration Features. Lecture Notes in Computer Science, 2014, , 612-619.	1.3	4
103	Assessment of automatic decision-support systems for detecting active T2 lesions in multiple sclerosis patients. Multiple Sclerosis Journal, 2022, 28, 1209-1218.	3.0	4
104	A Non-Linear Diffeomorphic Framework for Prostate Multimodal Registration. , 2011, , .		3
105	A boosting approach for the simultaneous detection and segmentation of generic objects. Pattern Recognition Letters, 2013, 34, 1490-1498.	4.2	3
106	A study on the robustness of shape descriptors to common scanning artifacts. , 2015, , .		3
107	Assessment of brain volumes obtained from MP-RAGE and MP2RAGE images, quantified using different segmentation methods. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2020, 33, 757-767.	2.0	3
108	An Experimental Benchmark for Point Set Coarse Matching. , 2015, , .		3

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109	Surface texture recognition by surface rendering. Optical Engineering, 2005, 44, 037001.	1.0	2
110	Euclidean Reconstruction of Deformable Structure Using a Perspective Camera with Varying Intrinsic Parameters. , 2006, , .		2
111	Recovering Euclidean deformable models from stereo-motion. , 2008, , .		2
112	Statistical Shape and Probability Prior Model for Automatic Prostate Segmentation. , 2011, , .		2
113	Joint probability of shape and image similarities to retrieve 2D TRUS-MR slice correspondence for prostate biopsy. , 2012, 2012, 5416-9.		2
114	A coupled schema of probabilistic atlas and statistical shape and appearance model for 3D prostate segmentation in MR images. , 2012, , .		2
115	A shape-based statistical method to retrieve 2D TRUS-MR slice correspondence for prostate biopsy. , 2012, , .		2
116	Exploring three faint source detections methods for aperture synthesis radio images. New Astronomy, 2015, 36, 86-99.	1.8	2
117	An SPM12 extension for multiple sclerosis lesion segmentation. , 2016, , .		2
118	Semiâ€automatic tool for motion annotation on complex video sequences. Electronics Letters, 2016, 52, 602-604.	1.0	2
119	Multi-atlas Parcellation in the Presence of Lesions: Application to Multiple Sclerosis. Lecture Notes in Computer Science, 2018, , 104-113.	1.3	2
120	GridDS: a hybrid data structure for residue computation in point set matching. Machine Vision and Applications, 2019, 30, 291-307.	2.7	2
121	Evaluating the Effect of Intensity Standardisation on Longitudinal Whole Brain Atrophy Quantification in Brain Magnetic Resonance Imaging. Applied Sciences (Switzerland), 2021, 11, 1773.	2.5	2
122	Quantitative comparison of subcortical and ventricular volumetry derived from MPRAGE and MP2RAGE images using different brain morphometry software. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2021, 34, 903-914.	2.0	2
123	A New Trajectory Based Motion Segmentation Benchmark Dataset (UdG-MS15). Lecture Notes in Computer Science, 2015, , 463-470.	1.3	2
124	Hierarchical Techniques to Improve Hybrid Point Cloud Registration. , 2017, , .		2
125	Mass detection in mammograms using pre-trained deep learning models. , 2018, , .		2
126	Rank estimation of trajectory matrix in motion segmentation. Electronics Letters, 2009, 45, 540.	1.0	1

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127	SLAM based Selective Submap Joining for the Victoria Park Dataset. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 557-562.	0.4	1
128	Weighted likelihood function of multiple statistical parameters to retrieve 2D TRUS-MR slice correspondence for prostate biopsy. , 2012, , .		1
129	Multiscale Distilled Sensing: Astronomical source detection in long wavelength images. Astronomy and Computing, 2015, 9, 10-19.	1.7	1
130	Segmentation of Rigid Motion from Non-rigid 2D Trajectories. Lecture Notes in Computer Science, 2007, , 491-498.	1.3	1
131	Image Texture Prediction Using Colour Photometric Stereo. Lecture Notes in Computer Science, 2002, , 355-363.	1.3	1
132	A Supervised Approach for Multiple Sclerosis Lesion Segmentation Using Context Features and an Outlier Map. Lecture Notes in Computer Science, 2013, , 782-789.	1.3	1
133	Semiautomatic labeling of generic objects for enlarging annotated image databases. , 2012, , .		0
134	Multiscale distilled sensing: A source detection method for infrared and radio astronomical images. , 2013, , .		0
135	Deep Learning for Medical Imaging. , 2022, , 11-54.		0