

João I Vilaça

List of Publications by Year in descending order

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93
papers

1,257
citations

430442

18
h-index

414034

32
g-index

96
all docs

96
docs citations

96
times ranked

1565
citing authors

#	ARTICLE	IF	CITATIONS
1	Fast automatic myocardial segmentation in 4D cine CMR datasets. Medical Image Analysis, 2014, 18, 1115-1131.	7.0	126
2	Neuron-specific proteotoxicity of mutant ataxin-3 in C. elegans : rescue by the DAF-16 and HSF-1 pathways. Human Molecular Genetics, 2011, 20, 2996-3009.	1.4	101
3	Targeting lactate transport suppresses <i>in vivo</i> breast tumour growth. Oncotarget, 2015, 6, 19177-19189.	0.8	92
4	Accuracy Comparison of Implant Impression Techniques: A Systematic Review. Clinical Implant Dentistry and Related Research, 2015, 17, e751-64.	1.6	68
5	Kidney segmentation in ultrasound, magnetic resonance and computed tomography images: A systematic review. Computer Methods and Programs in Biomedicine, 2018, 157, 49-67.	2.6	67
6	Ureterscopy-assisted Percutaneous Kidney Access Made Easy: First Clinical Experience with a Novel Navigation System Using Electromagnetic Guidance (IDEAL Stage 1). European Urology, 2017, 72, 610-616.	0.9	52
7	Collecting System Percutaneous Access Using Real-Time Tracking Sensors: First Pig Model <i>In Vivo</i> Experience. Journal of Urology, 2013, 190, 1932-1937.	0.2	51
8	Kidney Targeting and Puncturing During Percutaneous Nephrolithotomy: Recent Advances and Future Perspectives. Journal of Endourology, 2013, 27, 826-834.	1.1	45
9	3D surface profile equipment for the characterization of the pavement texture "TexScan. Mechatronics, 2010, 20, 674-685.	2.0	44
10	Calibration procedure for 3D measurement systems using two cameras and a laser line. Optics and Laser Technology, 2009, 41, 112-119.	2.2	40
11	A novel multi-atlas strategy with dense deformation field reconstruction for abdominal and thoracic multi-organ segmentation from computed tomography. Medical Image Analysis, 2018, 45, 108-120.	7.0	30
12	Non-contact 3D acquisition system based on stereo vision and laser triangulation. Machine Vision and Applications, 2010, 21, 341-350.	1.7	25
13	A review of image processing methods for fetal head and brain analysis in ultrasound images. Computer Methods and Programs in Biomedicine, 2022, 215, 106629.	2.6	25
14	Automatic 3D aortic annulus sizing by computed tomography in the planning of transcatheter aortic valve implantation. Journal of Cardiovascular Computed Tomography, 2017, 11, 25-32.	0.7	24
15	MITT: Medical Image Tracking Toolbox. IEEE Transactions on Medical Imaging, 2018, 37, 2547-2557.	5.4	24
16	Real-time hand tracking for rehabilitation and character animation. , 2014, , .		22
17	Development of a patient-specific atrial phantom model for planning and training of interatrial interventions. Medical Physics, 2017, 44, 5638-5649.	1.6	21
18	Fast left ventricle tracking using localized anatomical affine optical flow. International Journal for Numerical Methods in Biomedical Engineering, 2017, 33, e2871.	1.0	20

#	ARTICLE	IF	CITATIONS
19	Automated segmentation of normal and diseased coronary arteries – The ASOCA challenge. Computerized Medical Imaging and Graphics, 2022, 97, 102049.	3.5	18
20	Validation of a Novel Software Tool for Automatic Aortic Annular Sizing in Three-Dimensional Transesophageal Echocardiographic Images. Journal of the American Society of Echocardiography, 2018, 31, 515-525.e5.	1.2	17
21	Technical Note: Assessment of electromagnetic tracking systems in a surgical environment using ultrasonography and ureteroscopy instruments for percutaneous renal access. Medical Physics, 2020, 47, 19-26.	1.6	17
22	Aortic Valve Tract Segmentation From 3D-TEE Using Shape-Based B-Spline Explicit Active Surfaces. IEEE Transactions on Medical Imaging, 2016, 35, 2015-2025.	5.4	16
23	Assessment of Laparoscopic Skills Performance. Surgical Innovation, 2016, 23, 52-61.	0.4	16
24	A competitive strategy for atrial and aortic tract segmentation based on deformable models. Medical Image Analysis, 2017, 42, 102-116.	7.0	16
25	Fully Automatic 3-D-TEE Segmentation for the Planning of Transcatheter Aortic Valve Implantation. IEEE Transactions on Biomedical Engineering, 2017, 64, 1711-1720.	2.5	16
26	Automatic Denavit-Hartenberg Parameter Identification for Serial Manipulators. , 2019, , .		15
27	Multi-centre validation of an automatic algorithm for fast 4D myocardial segmentation in cine CMR datasets. European Heart Journal Cardiovascular Imaging, 2016, 17, 1118-1127.	0.5	14
28	A new methodology for assessment of pectus excavatum correction after bar removal in Nuss procedure: Preliminary study. Journal of Pediatric Surgery, 2017, 52, 1089-1097.	0.8	14
29	Fast Segmentation of the Left Atrial Appendage in 3-D Transesophageal Echocardiographic Images. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2018, 65, 2332-2342.	1.7	14
30	Automatic Prebent Customized Prosthesis for Pectus Excavatum Minimally Invasive Surgery Correction. Surgical Innovation, 2014, 21, 290-296.	0.4	13
31	Finite element analysis of pectus carinatus surgical correction via a minimally invasive approach. Computer Methods in Biomechanics and Biomedical Engineering, 2015, 18, 711-720.	0.9	10
32	Assessment of aortic valve tract dynamics using automatic tracking of 3D transesophageal echocardiographic images. International Journal of Cardiovascular Imaging, 2019, 35, 881-895.	0.7	10
33	A laparoscopic surgery training interface. , 2011, , .		9
34	Semiautomatic Estimation of Device Size for Left Atrial Appendage Occlusion in 3-D TEE Images. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2019, 66, 922-929.	1.7	9
35	Kidney Segmentation in 3-D Ultrasound Images Using a Fast Phase-Based Approach. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2021, 68, 1521-1531.	1.7	9
36	An image processing application for liver tumour segmentation. , 2011, , .		8

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37	Automatic modeling of pectus excavatum corrective prosthesis using artificial neural networks. Medical Engineering and Physics, 2014, 36, 1338-1345.	0.8	8
38	Novel Solutions Applied in Transseptal Puncture: A Systematic Review. Journal of Medical Devices, Transactions of the ASME, 2017, 11, .	0.4	8
39	Deep learning-based detection of anthropometric landmarks in 3D infants head models. , 2019, , .		7
40	Variations of the soft tissue thicknesses external to the ribs in Pectus Excavatum patients. Journal of Pediatric Surgery, 2013, 48, 1878-1886.	0.8	6
41	Dense motion field estimation from myocardial boundary displacements. International Journal for Numerical Methods in Biomedical Engineering, 2016, 32, e02758.	1.0	6
42	Anthropometric Landmark Detection in 3D Head Surfaces Using a Deep Learning Approach. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 2643-2654.	3.9	6
43	Pectus excavatum postsurgical outcome based on preoperative soft body dynamics simulation. , 2012, , .		5
44	Fully automatic left ventricular myocardial strain estimation in 2D short-axis tagged magnetic resonance imaging. Physics in Medicine and Biology, 2017, 62, 6899-6919.	1.6	5
45	Instrumented vest for postural reeducation. , 2017, , .		5
46	Feasibility and Accuracy of Automated Three-Dimensional Echocardiographic Analysis of Left Atrial Appendage for Transcatheter Closure. Journal of the American Society of Echocardiography, 2021, , .	1.2	5
47	A new machine for acquire pavement texture. , 2009, , .		4
48	Computer-aided recognition of dental implants in X-ray images. , 2015, , .		4
49	Comparative Study of 2D and 3D Optical Imaging Systems: Laparoendoscopic Single-Site Surgery in an Ex Vivo Model. Surgical Innovation, 2017, 24, 598-604.	0.4	4
50	Development of the Business Model and User Experience for a Pill Dispenser: A Designer Perspective. Springer Series in Design and Innovation, 2022, , 552-564.	0.2	4
51	Automatic strategy for extraction of anthropometric measurements for the diagnostic and evaluation of deformational plagiocephaly from infant's head models. , 2019, , .		4
52	Assessment of LAA Strain and Thrombus Mobility and Its Impact on Thrombus Resolution – Added-Value of a Novel Echocardiographic Thrombus Tracking Method. Cardiovascular Engineering and Technology, 2022, , 1.	0.7	4
53	A New Software Application for Footwear Industry. , 2007, , .		3
54	Virtual simulation of the postsurgical cosmetic outcome in patients with Pectus Excavatum. , 2011, , .		3

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55	Fast left ventricle tracking in CMR images using localized anatomical affine optical flow. , 2015, , .		3
56	Kidney segmentation in 3D CT images using B-Spline Explicit Active Surfaces. , 2016, , .		3
57	Segmentation of kidney and renal collecting system on 3D computed tomography images. , 2018, , .		3
58	Personalized dynamic phantom of the right and left ventricles based on patient-specific anatomy for echocardiography studies “ Preliminary results. , 2018, , .		3
59	Surface-based registration between CT and US for image-guided percutaneous renal access “ A feasibility study. Medical Physics, 2019, 46, 1115-1126.	1.6	3
60	Stereo Vision Calibration Procedure for 3D Surface measurements. Industrial Electronics Society (IECON), Annual Conference of IEEE, 2006, , .	0.0	2
61	An Image Processing Application for Quantification of Protein Aggregates in Caenorhabditis Elegans. Advances in Intelligent and Soft Computing, 2011, , 31-38.	0.2	2
62	Palco: A multisensor realtime 3D cartoon production system. , 2013, , .		2
63	Semi-automatic 3D segmentation of costal cartilage in CT data from Pectus Excavatum patients. , 2015, , .		2
64	Robust temporal alignment of multimodal cardiac sequences. , 2015, , .		2
65	Classification algorithms for body posture. , 2017, , .		2
66	Automated segmentation of the atrial region and fossa ovalis towards computer-aided planning of inter-atrial wall interventions. Computer Methods and Programs in Biomedicine, 2018, 161, 73-84.	2.6	2
67	Synthetic infant head shapes with deformational plagiocephaly: concept and 3D model parameterization. , 2019, , .		2
68	Guest Editorial: Special Issue on Serious Games for Health. IEEE Transactions on Games, 2020, 12, 337-340.	1.2	2
69	A Digital Game Development Education Project. , 2010, , .		1
70	Automatic segmentation and 3D feature extraction of protein aggregates in <i>Caenorhabditis elegans</i>. Proceedings of SPIE, 2012, , .	0.8	1
71	Hand-held robotic device for laparoscopic surgery and training. , 2014, , .		1
72	Artificial neural networks for automatic modelling of thepectus excavatumcorrective prosthesis. , 2014, , .		1

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73	Electromagnetic tracker feasibility in the design of a dental superstructure for edentulous patients. , 2014, , .		1
74	Automated Image Analysis of Lung Branching Morphogenesis from Microscopic Images of Fetal Rat Explants. Computational and Mathematical Methods in Medicine, 2014, 2014, 1-9.	0.7	1
75	Improving the robustness of interventional 4D ultrasound segmentation through the use of personalized prior shape models. Proceedings of SPIE, 2015, , .	0.8	1
76	Voxel-based registration of simulated and real patient CBCT data for accurate dental implant pose estimation. , 2015, , .		1
77	A Novel Interventional Guidance Framework for Transseptal Puncture in Left Atrial Interventions. Lecture Notes in Computer Science, 2018, , 93-101.	1.0	1
78	Semi-automatic aortic valve tract segmentation in 3D cardiac magnetic resonance images using shape-based B-spline explicit active surfaces. , 2019, , .		1
79	A Mobile Health Care Rule-Based System. Communications in Computer and Information Science, 2011, , 371-383.	0.4	1
80	A Dual-Modal CT/US Kidney Phantom Model for Image-Guided Percutaneous Renal Access. Lecture Notes in Computational Vision and Biomechanics, 2018, , 378-387.	0.5	1
81	Fetal head circumference delineation using convolutional neural networks with registration-based ellipse fitting. , 2022, , .		1
82	3D segmentation of the left atrial appendage in computed tomography for planning of transcatheter occlusion. , 2022, , .		1
83	Automatic trajectory generation for the milling of sculpted surfaces acquired from laser scanning systems. , 2009, , .		0
84	Thoracic wall reconstruction using ultrasound images to model/bend the thoracic prosthesis for correction of pectus excavatum. Proceedings of SPIE, 2012, , .	0.8	0
85	Preliminary clinical trial in percutaneous nephrolithotomy using a real-time navigation system for percutaneous kidney access. Proceedings of SPIE, 2014, , .	0.8	0
86	A-scan ultrasound system for real-time puncture safety assessment during percutaneous nephrolithotomy. Proceedings of SPIE, 2015, , .	0.8	0
87	Validation of percutaneous puncture trajectory during renal access using 4D ultrasound reconstruction. , 2015, , .		0
88	Identifying Clones in Functional Programs for Refactoring. Communications in Computer and Information Science, 2010, , 309-317.	0.4	0
89	Analysis of autoclave induced dimensional changes on addition silicones. , 2014, , 135-140.		0
90	Automatic left ventricular segmentation in 4D interventional ultrasound data using a patient-specific temporal synchronized shape prior. , 2019, , .		0

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91	Patient-specific outcome simulation after surgical correction of Pectus Excavatum: a preliminary study. , 2019, , .		0
92	Three-dimensional color Doppler ultrasound simulation to mimic paravalvular regurgitation. , 2019, , .		0
93	Realistic 3D infant head surfaces augmentation to improve AI-based diagnosis of cranial deformities. Journal of Biomedical Informatics, 2022, 132, 104121.	2.5	0