Alejandro F Frangi

List of Publications by Year
in descending order

65 papers	6,339 citations	185998 28 h-index	161609 54 g-index
65 all docs	65 docs citations	65 times ranked	7281 citing authors

#	Article	IF	Citations
1	Multiscale vessel enhancement filtering. Lecture Notes in Computer Science, 1998, , 130-137.	1.0	2,012
2	KPCA plus LDA: a complete kernel Fisher discriminant framework for feature extraction and recognition. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2005, 27, 230-244.	9.7	721
3	Efficient pipeline for image-based patient-specific analysis of cerebral aneurysm hemodynamics: technique and sensitivity. IEEE Transactions on Medical Imaging, 2005, 24, 457-467.	5.4	473
4	Active shape model segmentation with optimal features. IEEE Transactions on Medical Imaging, 2002, 21, 924-933.	5.4	444
5	Automatic construction of 3-D statistical deformation models of the brain using nonrigid registration. IEEE Transactions on Medical Imaging, 2003, 22, 1014-1025.	5.4	350
6	Automatic construction of multiple-object three-dimensional statistical shape models: application to cardiac modeling. IEEE Transactions on Medical Imaging, 2002, 21, 1151-1166.	5.4	325
7	Vascular dysfunction in the pathogenesis of Alzheimer's disease â€" A review of endothelium-mediated mechanisms and ensuing vicious circles. Neurobiology of Disease, 2015, 82, 593-606.	2.1	219
8	SPASM: A 3D-ASM for segmentation of sparse and arbitrarily oriented cardiac MRI data. Medical Image Analysis, 2006, 10, 286-303.	7.0	194
9	A review of heart chamber segmentation for structural and functional analysis using cardiac magnetic resonance imaging. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2016, 29, 155-195.	1.1	190
10	Computational cardiac atlases: from patient to population and back. Experimental Physiology, 2009, 94, 578-596.	0.9	115
11	Fast virtual deployment of self-expandable stents: Method and in vitro evaluation for intracranial aneurysmal stenting. Medical Image Analysis, 2012, 16, 721-730.	7.0	107
12	Newtonian and non-Newtonian blood flow in coiled cerebral aneurysms. Journal of Biomechanics, 2013, 46, 2158-2164.	0.9	82
13	Automated Detection of Regional Wall Motion Abnormalities Based on a Statistical Model Applied to Multislice Short-Axis Cardiac MR Images. IEEE Transactions on Medical Imaging, 2009, 28, 595-607.	5.4	77
14	Effects of the Purkinje System and Cardiac Geometry on Biventricular Pacing: A Model Study. Annals of Biomedical Engineering, 2010, 38, 1388-1398.	1.3	72
15	A spatiotemporal statistical atlas of motion for the quantification of abnormal myocardial tissue velocities. Medical Image Analysis, 2011, 15, 316-328.	7.0	68
16	Automated segmentation of cerebral vasculature with aneurysms in 3DRA and TOFâ€MRA using geodesic active regions: An evaluation study. Medical Physics, 2011, 38, 210-222.	1.6	67
17	Reconstructing the 3D Shape and Bone Mineral Density Distribution of the Proximal Femur From Dual-Energy X-Ray Absorptiometry. IEEE Transactions on Medical Imaging, 2011, 30, 2101-2114.	5.4	65
18	Combined Fisherfaces framework. Image and Vision Computing, 2003, 21, 1037-1044.	2.7	61

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19	Active Shape Models with Invariant Optimal Features: Application to Facial Analysis. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2007, 29, 1105-1117.	9.7	58
20	Automatic 3D ASM Construction via Atlas-Based Landmarking and Volumetric Elastic Registration. Lecture Notes in Computer Science, 2001, , 78-91.	1.0	51
21	Automatic initialization and quality control of large-scale cardiac MRI segmentations. Medical Image Analysis, 2018, 43, 129-141.	7.0	48
22	Quantitative CMR population imaging on 20,000 subjects of the UK Biobank imaging study: LV/RV quantification pipeline and its evaluation. Medical Image Analysis, 2019, 56, 26-42.	7.0	41
23	A new kernel Fisher discriminant algorithm with application to face recognition. Neurocomputing, 2004, 56, 415-421.	3.5	37
24	Automatic cardiac LV segmentation in MRI using modified graph cuts with smoothness and interslice constraints. Magnetic Resonance in Medicine, 2014, 72, 1775-1784.	1.9	35
25	A statistical shape model of the heart and its application to model-based segmentation. , 2007, , .		33
26	Group-wise similarity registration of point sets using Studentâ€™s t-mixture model for statistical shape models. Medical Image Analysis, 2018, 44, 156-176.	7.0	32
27	An Algorithm for the Segmentation of Highly Abnormal Hearts Using a Generic Statistical Shape Model. IEEE Transactions on Medical Imaging, 2016, 35, 845-859.	5.4	31
28	Automatic Construction of 3D-ASM Intensity Models by Simulating Image Acquisition: Application to Myocardial Gated SPECT Studies. IEEE Transactions on Medical Imaging, 2008, 27, 1655-1667.	5.4	30
29	Computational mouse atlases and their application to automatic assessment of craniofacial dysmorphology caused by the Crouzon mutation Fgfr2C342Y. Journal of Anatomy, 2007, 211, 37-52.	0.9	29
30	A Framework for Weighted Fusion of Multiple Statistical Models of Shape and Appearance. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2006, 28, 1847-1857.	9.7	25
31	Automatic Aneurysm Neck Detection Using Surface Voronoi Diagrams. IEEE Transactions on Medical Imaging, 2011, 30, 1863-1876.	5.4	25
32	In-silico trial of intracranial flow diverters replicates and expands insights from conventional clinical trials. Nature Communications, 2021, 12, 3861.	5.8	25
33	Feasibility of estimating regional mechanical properties of cerebral aneurysmsin vivo. Medical Physics, 2010, 37, 1689-1706.	1.6	22
34	3D segmentation of annulus fibrosus and nucleus pulposus from T2-weighted magnetic resonance images. Physics in Medicine and Biology, 2014, 59, 7847-7864.	1.6	16
35	Screening for Cognitive Impairment by Model-Assisted Cerebral Blood Flow Estimation. IEEE Transactions on Biomedical Engineering, 2018, 65, 1654-1661.	2.5	13
36	A Bayesian Approach to Sparse Model Selection in Statistical Shape Models. SIAM Journal on Imaging Sciences, 2015, 8, 858-887.	1.3	12

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37	Cardiac Medial Modeling and Time-Course Heart Wall Thickness Analysis. Lecture Notes in Computer Science, 2008, 11, 766-773.	1.0	12
38	3D reconstruction of both shape and Bone Mineral Density distribution of the femur from DXA images. , 2010, , .		11
39	A framework for the merging of pre-existing and correspondenceless 3D statistical shape models. Medical Image Analysis, 2014, 18, 1044-1058.	7.0	11
40	Virtual endovascular treatment of intracranial aneurysms: models and uncertainty. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2017, 9, e1385.	6.6	11
41	Reliability Estimation for Statistical Shape Models. IEEE Transactions on Image Processing, 2008, 17, 2442-2455.	6.0	10
42	Simulated 3D ultrasound LV cardiac images for active shape model training. , 2007, , .		9
43	Reusability of Statistical Shape Models for the Segmentation of Severely Abnormal Hearts. Lecture Notes in Computer Science, 2015, , 257-264.	1.0	7
44	SPASM: Segmentation of Sparse and Arbitrarily Oriented Cardiac MRI Data Using a 3D-ASM. Lecture Notes in Computer Science, 2005, , 33-43.	1.0	6
45	Automatic segmentation of left and right ventricles in cardiac MRI using 3D-ASM and deep learning. Signal Processing: Image Communication, 2021, 96, 116303.	1.8	6
46	Joint Clustering and Component Analysis of Correspondenceless Point Sets: Application to Cardiac Statistical Modeling. Lecture Notes in Computer Science, 2015, 24, 98-109.	1.0	6
47	Pre-clinical evaluation of implicit deformable models for three-dimensional segmentation of brain aneurysms from CTA images. , 2003, 5032, 1264.		5
48	A probabilistic deep motion model for unsupervised cardiac shape anomaly assessment. Medical Image Analysis, 2022, 75, 102276.	7.0	5
49	A statistical model-based approach for the automatic quantitative analysis of perfusion gated SPECT studies. , 2005, , .		4
50	A Predictive Model of Vertebral Trabecular Anisotropy From Ex Vivo Micro-CT. IEEE Transactions on Medical Imaging, 2015, 34, 1747-1759.	5.4	4
51	Automated Personalised Human Left Ventricular FE Models to Investigate Heart Failure Mechanics. Lecture Notes in Computer Science, 2013, , 307-316.	1.0	4
52	Statistical Modeling and Segmentation in Cardiac MRI Using a Grid Computing Approach. Lecture Notes in Computer Science, 2005, , 6-15.	1.0	3
53	Conical deformable model for myocardial segmentation in late-enhanced MRI. , 2012, , .		3
54	Statistically-driven 3D fiber reconstruction and denoising from multi-slice cardiac DTI using a Markov random field model. Medical Image Analysis, 2016, 27, 105-116.	7.0	3

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55	High Throughput Computation of Reference Ranges of Biventricular Cardiac Function on the UK Biobank Population Cohort. Lecture Notes in Computer Science, 2019, , 114-121.	1.0	3
56	Full Multiresolution Active Shape Models. Journal of Mathematical Imaging and Vision, 2012, 44, 463-479.	0.8	2
57	An Experimental Evaluation of Three Classifiers for Use in Self-Updating Face Recognition Systems. IEEE Transactions on Information Forensics and Security, 2012, 7, 932-943.	4.5	2
58	Pre to Intraoperative Data Fusion Framework for Multimodal Characterization of Myocardial Scar Tissue. IEEE Journal of Translational Engineering in Health and Medicine, 2014, 2, 1-11.	2.2	2
59	Joint Clustering and Component Analysis of Spatio-Temporal Shape Patterns in Myocardial Infarction. Lecture Notes in Computer Science, 2016, , 171-179.	1.0	2
60	Sparse Statistical Deformation Model for the Analysis of Craniofacial Malformations in the Crouzon Mouse. , 2007, , 112-121.		2
61	Direct Estimation of Wall Shear Stress from Aneurysmal Morphology: A Statistical Approach. Lecture Notes in Computer Science, 2016, , 201-209.	1.0	1
62	Sparse active shape models: influence of the interpolation kernel on segmentation accuracy and speed. , 2010, , .		0
63	Image based cardiac acceleration map using statistical shape and 3D+t myocardial tracking models; in-vitro study on heart phantom. Proceedings of SPIE, 2013, , .	0.8	0
64	3D active shape models of human brain structures: application to patient-specific mesh generation. Proceedings of SPIE, 2015, , .	0.8	0
65	Atlas Construction and Image Analysis Using Statistical Cardiac Models. Lecture Notes in Computer Science, 2010, , 1-13.	1.0	0