Santiago Aja-Fernandez

List of Publications by Year
in descending order

110 papers	2,949 citations	257450 24 h-index	189892 50 g-index
118 all docs	118 docs citations	118 times ranked	2902 citing authors

#	Article	IF	Citations
1	Accurate free-water estimation in white matter from fast diffusion MRI acquisitions using the spherical means technique. Magnetic Resonance in Medicine, 2022, 87, 1028-1035.	3.0	7
2	Anisotropy measure from three diffusion-encoding gradient directions. Magnetic Resonance Imaging, 2022, 88, 38-43.	1.8	0
3	Moment-based representation of the diffusion inside the brain from reduced DMRI acquisitions: Generalized AMURA. Medical Image Analysis, 2022, 77, 102356.	11.6	4
4	Synthetic MRI improves radiomics-based glioblastoma survival prediction. NMR in Biomedicine, 2022, 35, e4754.	2.8	7
5	Apparent propagator anisotropy from single-shell diffusion MRI acquisitions. Magnetic Resonance in Medicine, 2021, 85, 2869-2881.	3.0	8
6	Multimodal fusion analysis of structural connectivity and gray matter morphology in migraine. Human Brain Mapping, 2021, 42, 908-921.	3.6	6
7	Efficient and accurate EAP imaging from multi-shell dMRI with micro-structure adaptive convolution kernels and dual Fourier Integral Transforms (MiSFIT). NeuroImage, 2021, 227, 117616.	4.2	12
8	On the generalizability of diffusion MRI signal representations across acquisition parameters, sequences and tissue types: Chronicles of the MEMENTO challenge. NeuroImage, 2021, 240, 118367.	4.2	10
9	Structural connectivity alterations in chronic and episodic migraine: A diffusion magnetic resonance imaging connectomics study. Cephalalgia, 2020, 40, 367-383.	3.9	21
10	White matter changes in chronic and episodic migraine: a diffusion tensor imaging study. Journal of Headache and Pain, 2020, 21, 1.	6.0	92
11	Alternative Microstructural Measures to Complement Diffusion Tensor Imaging in Migraine Studies with Standard MRI Acquisition. Brain Sciences, 2020, 10, 711.	2.3	12
12	Gray Matter Structural Alterations in Chronic and Episodic Migraine: A Morphometric Magnetic Resonance Imaging Study. Pain Medicine, 2020, 21, 2997-3011.	1.9	17
13	Simultaneous imaging of hard and soft biological tissues in a low-field dental MRI scanner. Scientific Reports, 2020, 10, 21470.	3.3	14
14	Micro-structure diffusion scalar measures from reduced MRI acquisitions. PLoS ONE, 2020, 15, e0229526.	2.5	12
15	Direction-averaged diffusion-weighted MRI signal using different axisymmetric B-tensor encoding schemes. Magnetic Resonance in Medicine, 2020, 84, 1579-1591.	3.0	12
16	Micro-structure diffusion scalar measures from reduced MRI acquisitions. , 2020, 15, e0229526.		0
17	Micro-structure diffusion scalar measures from reduced MRI acquisitions. , 2020, 15, e0229526.		0
18	Micro-structure diffusion scalar measures from reduced MRI acquisitions. , 2020, 15, e0229526.		0

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19	Micro-structure diffusion scalar measures from reduced MRI acquisitions. , 2020, 15, e0229526.		0
20	Single-Shell Return-to-the-Origin Probability Diffusion Mri Measure Under a Non-Stationary Rician Distributed Noise. , 2019, , .		3
21	Computation of exact gâ€factor maps in 3D GRAPPA reconstructions. Magnetic Resonance in Medicine, 2019, 81, 1353-1367.	3.0	0
22	Optimized Diffusionâ€Weighting Gradient Waveform Design (ODGD) formulation for motion compensation and concomitant gradient nulling. Magnetic Resonance in Medicine, 2019, 81, 989-1003.	3.0	24
23	Return-to-Axis Probability Calculation from Single-Shell Acquisitions. Mathematics and Visualization, 2019, , 29-41.	0.6	0
24	Scalar diffusion-MRI measures invariant to acquisition parameters: A first step towards imaging biomarkers. Magnetic Resonance Imaging, 2018, 54, 194-213.	1.8	9
25	Robust estimation of the apparent diffusion coefficient invariant to acquisition noise and physiological motion. Magnetic Resonance Imaging, 2018, 53, 123-133.	1.8	3
26	Non-Stationary Rician Noise Estimation in Parallel MRI Using a Single Image: AÂVariance-Stabilizing Approach. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2017, 39, 2015-2029.	13.9	27
27	Statistical Analysis of Noise in MRI. , 2016, , .		46
28	Variance stabilization of noncentral-chi data: Application to noise estimation in MRI. , 2016, , .		4
29	Spatially-variant noise filtering in magnetic resonance imaging: A consensus-based approach. Knowledge-Based Systems, 2016, 106, 264-273.	7.1	3
30	Influence of ultrasound speckle tracking strategies for motion and strain estimation. Medical Image Analysis, 2016, 32, 184-200.	11.6	10
31	Improving GRAPPA reconstruction by frequency discrimination in the ACS lines. International Journal of Computer Assisted Radiology and Surgery, 2015, 10, 1699-1710.	2.8	6
32	A maximum likelihood approach to diffeomorphic speckle tracking for 3D strain estimation in echocardiography. Medical Image Analysis, 2015, 24, 90-105.	11.6	5
33	Blind estimation of spatially variant noise in GRAPPA MRI. , 2015, , .		3
34	Anisotropic Diffusion Filter With Memory Based on Speckle Statistics for Ultrasound Images. IEEE Transactions on Image Processing, 2015, 24, 345-358.	9.8	105
35	A local fuzzy thresholding methodology for multiregion image segmentation. Knowledge-Based Systems, 2015, 83, 1-12.	7.1	123
36	Spatially variant noise estimation in MRI: A homomorphic approach. Medical Image Analysis, 2015, 20, 184-197.	11.6	62

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37	Attention deficit/hyperactivity disorder and medication with stimulants in young children: A DTI study. Progress in Neuro-Psychopharmacology and Biological Psychiatry, 2015, 57, 176-184.	4.8	33
38	Impact of MR Acquisition Parameters on DTI Scalar Indexes: A Tractography Based Approach. PLoS ONE, 2015, 10, e0137905.	2.5	60
39	Spherical Deconvolution of Multichannel Diffusion MRI Data with Non-Gaussian Noise Models and Spatial Regularization. PLoS ONE, 2015, 10, e0138910.	2.5	27
40	Probabilistic Tissue Characterization for Ultrasound Images. The Insight Journal, 2015, , .	0.2	0
41	Fully Automatic Detection of Salient Features in 3-D Transesophageal Images. Ultrasound in Medicine and Biology, 2014, 40, 2868-2884.	1.5	4
42	Noise estimation in parallel MRI: GRAPPA and SENSE. Magnetic Resonance Imaging, 2014, 32, 281-290.	1.8	90
43	Gamma mixture classifier for plaque detection in intravascular ultrasonic images. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2014, 61, 44-61.	3.0	31
44	Fast Anisotropic Speckle Filter for Ultrasound Medical Images. IFMBE Proceedings, 2014, , 253-256.	0.3	1
45	Strain rate tensor estimation from echocardiography for quantitative assessment of functional mitral regurgitation. , 2013, , .		2
46	A magnetic resonance software simulator for the evaluation of myocardial deformation estimation. Medical Engineering and Physics, 2013, 35, 1331-1340.	1.7	0
47	Groupwise Elastic Registration by a New Sparsity-Promoting Metric: Application to the Alignment of Cardiac Magnetic Resonance Perfusion Images. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2013, 35, 2638-2650.	13.9	14
48	Atlas-based segmentation of white matter structures from DTI using tensor invariants and orientation. , 2013, 2013, 503-6.		1
49	Merging squared-magnitude approaches to DWI denoising: An adaptive Wiener filter tuned to the anatomical contents of the image. , 2013, 2013, 507-10.		0
50	Effective noise estimation and filtering from correlated multiple-coil MR data. Magnetic Resonance Imaging, 2013, 31, 272-285.	1.8	35
51	Noise correction for HARDI and HYDI data obtained with multi-channel coils and Sum of Squares reconstruction: An anisotropic extension of the LMMSE. Magnetic Resonance Imaging, 2013, 31, 1360-1371.	1.8	8
52	Noise estimation in magnetic resonance SENSE reconstructed data. , 2013, 2013, 1104-7.		1
53	Robust estimation of MRI myocardial perfusion parameters. , 2013, 2013, 4382-5.		0
54	Anisotropic diffusion filtering for correlated multiple-coil MRI. , 2013, 2013, 2956-9.		0

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55	Applying a parametric approach for the task of nonstationary noise removal with missing information. , 2013, , .		0
56	Speckle Tracking in Interpolated Echocardiography to Estimate Heart Motion. Lecture Notes in Computer Science, 2013, , 325-333.	1.3	4
57	Homeomorphic Geometrical Transform for Collision Response in Surgical Simulation. Lecture Notes in Computer Science, 2013, , 433-440.	1.3	0
58	Deblurring of probabilistic ODFs in quantitative diffusion MRI. , 2012, , .		1
59	A Generalized Gamma Mixture Model for Ultrasonic Tissue Characterization. Computational and Mathematical Methods in Medicine, 2012, 2012, 1-25.	1.3	23
60	Anisotropic LMMSE denoising of MRI based on statistical tissue models. , 2012, , .		4
61	Least squares for diffusion tensor estimation revisited: Propagation of uncertainty with Rician and non-Rician signals. NeuroImage, 2012, 59, 4032-4043.	4.2	22
62	A MRI phantom for cardiac perfusion simulation. , 2012, , .		4
63	Efficient and robust nonlocal means denoising of MR data based on salient features matching. Computer Methods and Programs in Biomedicine, 2012, 105, 131-144.	4.7	73
64	A direct calculation of moments of the sample variance. Mathematics and Computers in Simulation, 2012, 82, 790-804.	4.4	2
65	Optimal real-time estimation in diffusion tensor imaging. Magnetic Resonance Imaging, 2012, 30, 506-517.	1.8	2
66	Influence of noise correlation in multipleâ€coil statistical models with sum of squares reconstruction. Magnetic Resonance in Medicine, 2012, 67, 580-585.	3.0	38
67	Parallel MRI Noise Correction: An Extension of the LMMSE to Non Central Ï‡ Distributions. Lecture Notes in Computer Science, 2011, 14, 226-233.	1.3	14
68	Statistical noise analysis in GRAPPA using a parametrized noncentral Chi approximation model. Magnetic Resonance in Medicine, 2011, 65, 1195-1206.	3.0	85
69	Realistic log-compressed law for ultrasound image recovery. , 2011, , .		0
70	Noise estimation in MR GRAPPA reconstructed data. , 2011, , .		0
71	DWI filtering using joint information for DTI and HARDI. Medical Image Analysis, 2010, 14, 205-218.	11.6	101
72	About the background distribution in MR data: a local variance study. Magnetic Resonance Imaging, 2010, 28, 739-752.	1.8	15

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73	NURBS for the geometrical modeling of a new family of Compact-Supported Radial Basis Functions for elastic registration of medical images. , 2010, 2010, 5947-50.		3
74	On the influence of interpolation on probabilistic models for ultrasonic images. , 2010, , .		17
75	A variationally based weighted re-initialization method for geometric active contours. , 2010, , .		1
76	DWI acquisition schemes and Diffusion Tensor estimation: A simulation-based study. , 2010, 2010, 3317-20.		3
77	Soft thresholding for medical image segmentation. , 2010, 2010, 4752-5.		10
78	A new methodology for the estimation of fiber populations in the white matter of the brain with the Funk–Radon transform. NeuroImage, 2010, 49, 1301-1315.	4.2	44
79	Probabilistic-Driven Oriented Speckle Reducing Anisotropic Diffusion with Application to Cardiac Ultrasonic Images. Lecture Notes in Computer Science, 2010, 13, 518-525.	1.3	18
80	A 3-D Collision Handling Algorithm for Surgery Simulation Based on Feedback Fuzzy Logic. IEEE Transactions on Information Technology in Biomedicine, 2009, 13, 451-457.	3.2	8
81	Noise estimation in single- and multiple-coil magnetic resonance data based on statistical models. Magnetic Resonance Imaging, 2009, 27, 1397-1409.	1.8	135
82	Automatic noise estimation in images using local statistics. Additive and multiplicative cases. Image and Vision Computing, 2009, 27, 756-770.	4.5	84
83	Noise-Driven Anisotropic Diffusion Filtering of MRI. IEEE Transactions on Image Processing, 2009, 18, 2265-2274.	9.8	174
84	Estimation of fiber Orientation Probability Density Functions in High Angular Resolution Diffusion Imaging. NeuroImage, 2009, 47, 638-650.	4.2	95
85	Bias of Least Squares Approaches for Diffusion Tensor Estimation from Array Coils in DT–MRI. Lecture Notes in Computer Science, 2009, 12, 919-926.	1.3	6
86	Design and Construction of a Realistic DWI Phantom for Filtering Performance Assessment. Lecture Notes in Computer Science, 2009, 12, 951-958.	1.3	11
87	On the Blurring of the Funk–Radon Transform in Q–Ball Imaging. Lecture Notes in Computer Science, 2009, , 415-422.	1.3	4
88	Quality Assessment of Tensor Images. Advances in Pattern Recognition, 2009, , 79-103.	0.8	0
89	On the blurring of the Funk-Radon transform in Q-Ball imaging. , 2009, 12, 415-22.		1
90	Matrix Modeling of Hierarchical Fuzzy Systems. IEEE Transactions on Fuzzy Systems, 2008, 16, 585-599.	9.8	25

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91	Noise and Signal Estimation in Magnitude MRI and Rician Distributed Images: A LMMSE Approach. IEEE Transactions on Image Processing, 2008, 17, 1383-1398.	9.8	254
92	Restoration of DWI Data Using a Rician LMMSE Estimator. IEEE Transactions on Medical Imaging, 2008, 27, 1389-1403.	8.9	132
93	A methodology for quality assessment in tensor images. , 2008, , .		0
94	Strain Rate Tensor estimation in cine cardiac MRI based on elastic image registration. , 2008, , .		3
95	Local similarity measures for demons-like registration algorithms. , 2008, , .		8
96	Joint LMMSE Estimation of DWI Data for DTI Processing. Lecture Notes in Computer Science, 2008, 11, 27-34.	1.3	12
97	P6D-4 Analysis of Ultrasound Images Based on Local Statistics. Application to the Diagnosis of Developmental Dysplasia of the Hip. Proceedings IEEE Ultrasonics Symposium, 2007, , .	0.0	3
98	Tissue Identification in Ultrasound Images using Rayleigh Local Parameter Estimation. , 2007, , .		3
99	Outlier Rejection for Diffusion Weighted Imaging. , 2007, 10, 161-168.		7
100	On the estimation of the coefficient of variation for anisotropic diffusion speckle filtering. IEEE Transactions on Image Processing, 2006, 15, 2694-2701.	9.8	267
101	Fuzzy feedback system analysis using transition matrices. Fuzzy Sets and Systems, 2006, 157, 516-543.	2.7	4
102	Image Quality Assessment based on Local Variance. , 2006, 2006, 4815-8.		105
103	Image Quality Assessment based on Local Variance. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	13
104	Group-Slicer: A collaborative extension of 3D-Slicer. Journal of Biomedical Informatics, 2005, 38, 431-442.	4.3	13
105	Fast inference using transition matrices: an extension to nonlinear operators. IEEE Transactions on Fuzzy Systems, 2005, 13, 478-490.	9.8	12
106	A computational TW3 classifier for skeletal maturity assessment. A Computing with Words approach. Journal of Biomedical Informatics, 2004, 37, 99-107.	4.3	71
107	Fast Inference in SAM Fuzzy Systems Using Transition Matrices. IEEE Transactions on Fuzzy Systems, 2004, 12, 170-182.	9.8	7
108	A fuzzy-controlled Kalman filter applied to stereo-visual tracking schemes. Signal Processing, 2003, 83, 101-120.	3.7	17

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109	A fuzzy MHT algorithm applied to text-based information tracking. IEEE Transactions on Fuzzy Systems, 2002, 10, 360-374.	9.8	8
110	Hierarchical fuzzy systems with FITM. , 0, , .		3