

Santiago Aja-Fernandez

List of Publications by Year in descending order

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Version: 2024-02-01

110
papers

2,949
citations

257357

24
h-index

189801

50
g-index

118
all docs

118
docs citations

118
times ranked

2902
citing authors

#	ARTICLE	IF	CITATIONS
1	On the estimation of the coefficient of variation for anisotropic diffusion speckle filtering. IEEE Transactions on Image Processing, 2006, 15, 2694-2701.	6.0	267
2	Noise and Signal Estimation in Magnitude MRI and Rician Distributed Images: A LMMSE Approach. IEEE Transactions on Image Processing, 2008, 17, 1383-1398.	6.0	254
3	Noise-Driven Anisotropic Diffusion Filtering of MRI. IEEE Transactions on Image Processing, 2009, 18, 2265-2274.	6.0	174
4	Noise estimation in single- and multiple-coil magnetic resonance data based on statistical models. Magnetic Resonance Imaging, 2009, 27, 1397-1409.	1.0	135
5	Restoration of DWI Data Using a Rician LMMSE Estimator. IEEE Transactions on Medical Imaging, 2008, 27, 1389-1403.	5.4	132
6	A local fuzzy thresholding methodology for multiregion image segmentation. Knowledge-Based Systems, 2015, 83, 1-12.	4.0	123
7	Image Quality Assessment based on Local Variance. , 2006, 2006, 4815-8.		105
8	Anisotropic Diffusion Filter With Memory Based on Speckle Statistics for Ultrasound Images. IEEE Transactions on Image Processing, 2015, 24, 345-358.	6.0	105
9	DWI filtering using joint information for DTI and HARDI. Medical Image Analysis, 2010, 14, 205-218.	7.0	101
10	Estimation of fiber Orientation Probability Density Functions in High Angular Resolution Diffusion Imaging. NeuroImage, 2009, 47, 638-650.	2.1	95
11	White matter changes in chronic and episodic migraine: a diffusion tensor imaging study. Journal of Headache and Pain, 2020, 21, 1.	2.5	92
12	Noise estimation in parallel MRI: GRAPPA and SENSE. Magnetic Resonance Imaging, 2014, 32, 281-290.	1.0	90
13	Statistical noise analysis in GRAPPA using a parametrized noncentral Chi approximation model. Magnetic Resonance in Medicine, 2011, 65, 1195-1206.	1.9	85
14	Automatic noise estimation in images using local statistics. Additive and multiplicative cases. Image and Vision Computing, 2009, 27, 756-770.	2.7	84
15	Efficient and robust nonlocal means denoising of MR data based on salient features matching. Computer Methods and Programs in Biomedicine, 2012, 105, 131-144.	2.6	73
16	A computational TW3 classifier for skeletal maturity assessment. A Computing with Words approach. Journal of Biomedical Informatics, 2004, 37, 99-107.	2.5	71
17	Spatially variant noise estimation in MRI: A homomorphic approach. Medical Image Analysis, 2015, 20, 184-197.	7.0	62
18	Impact of MR Acquisition Parameters on DTI Scalar Indexes: A Tractography Based Approach. PLoS ONE, 2015, 10, e0137905.	1.1	60

#	ARTICLE	IF	CITATIONS
19	Statistical Analysis of Noise in MRI. , 2016, , .		46
20	A new methodology for the estimation of fiber populations in the white matter of the brain with the Funkâ€“Radon transform. NeuroImage, 2010, 49, 1301-1315.	2.1	44
21	Influence of noise correlation in multipleâ€“coil statistical models with sum of squares reconstruction. Magnetic Resonance in Medicine, 2012, 67, 580-585.	1.9	38
22	Effective noise estimation and filtering from correlated multiple-coil MR data. Magnetic Resonance Imaging, 2013, 31, 272-285.	1.0	35
23	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.	2.5	33
24	Gamma mixture classifier for plaque detection in intravascular ultrasonic images. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2014, 61, 44-61.	1.7	31
25	Non-Stationary Rician Noise Estimation in Parallel MRI Using a Single Image: A Variance-Stabilizing Approach. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2017, 39, 2015-2029.	9.7	27
26	Spherical Deconvolution of Multichannel Diffusion MRI Data with Non-Gaussian Noise Models and Spatial Regularization. PLoS ONE, 2015, 10, e0138910.	1.1	27
27	Matrix Modeling of Hierarchical Fuzzy Systems. IEEE Transactions on Fuzzy Systems, 2008, 16, 585-599.	6.5	25
28	Optimized Diffusionâ€“Weighting Gradient Waveform Design (ODGD) formulation for motion compensation and concomitant gradient nulling. Magnetic Resonance in Medicine, 2019, 81, 989-1003.	1.9	24
29	A Generalized Gamma Mixture Model for Ultrasonic Tissue Characterization. Computational and Mathematical Methods in Medicine, 2012, 2012, 1-25.	0.7	23
30	Least squares for diffusion tensor estimation revisited: Propagation of uncertainty with Rician and non-Rician signals. NeuroImage, 2012, 59, 4032-4043.	2.1	22
31	Structural connectivity alterations in chronic and episodic migraine: A diffusion magnetic resonance imaging connectomics study. Cephalalgia, 2020, 40, 367-383.	1.8	21
32	Probabilistic-Driven Oriented Speckle Reducing Anisotropic Diffusion with Application to Cardiac Ultrasonic Images. Lecture Notes in Computer Science, 2010, 13, 518-525.	1.0	18
33	A fuzzy-controlled Kalman filter applied to stereo-visual tracking schemes. Signal Processing, 2003, 83, 101-120.	2.1	17
34	On the influence of interpolation on probabilistic models for ultrasonic images. , 2010, , .		17
35	Gray Matter Structural Alterations in Chronic and Episodic Migraine: A Morphometric Magnetic Resonance Imaging Study. Pain Medicine, 2020, 21, 2997-3011.	0.9	17
36	About the background distribution in MR data: a local variance study. Magnetic Resonance Imaging, 2010, 28, 739-752.	1.0	15

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37	Parallel MRI Noise Correction: An Extension of the LMMSE to Non Central χ^2 Distributions. Lecture Notes in Computer Science, 2011, 14, 226-233.	1.0	14
38	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.	9.7	14
39	Simultaneous imaging of hard and soft biological tissues in a low-field dental MRI scanner. Scientific Reports, 2020, 10, 21470.	1.6	14
40	Group-Slicer: A collaborative extension of 3D-Slicer. Journal of Biomedical Informatics, 2005, 38, 431-442.	2.5	13
41	Image Quality Assessment based on Local Variance. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	13
42	Fast inference using transition matrices: an extension to nonlinear operators. IEEE Transactions on Fuzzy Systems, 2005, 13, 478-490.	6.5	12
43	Alternative Microstructural Measures to Complement Diffusion Tensor Imaging in Migraine Studies with Standard MRI Acquisition. Brain Sciences, 2020, 10, 711.	1.1	12
44	Micro-structure diffusion scalar measures from reduced MRI acquisitions. PLoS ONE, 2020, 15, e0229526.	1.1	12
45	Direction-averaged diffusion-weighted MRI signal using different axisymmetric B-tensor encoding schemes. Magnetic Resonance in Medicine, 2020, 84, 1579-1591.	1.9	12
46	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.	2.1	12
47	Joint LMMSE Estimation of DWI Data for DTI Processing. Lecture Notes in Computer Science, 2008, 11, 27-34.	1.0	12
48	Design and Construction of a Realistic DWI Phantom for Filtering Performance Assessment. Lecture Notes in Computer Science, 2009, 12, 951-958.	1.0	11
49	Soft thresholding for medical image segmentation. , 2010, 2010, 4752-5.		10
50	Influence of ultrasound speckle tracking strategies for motion and strain estimation. Medical Image Analysis, 2016, 32, 184-200.	7.0	10
51	On the generalizability of diffusion MRI signal representations across acquisition parameters, sequences and tissue types: Chronicles of the MEMENTO challenge. NeuroImage, 2021, 240, 118367.	2.1	10
52	Scalar diffusion-MRI measures invariant to acquisition parameters: A first step towards imaging biomarkers. Magnetic Resonance Imaging, 2018, 54, 194-213.	1.0	9
53	A fuzzy MHT algorithm applied to text-based information tracking. IEEE Transactions on Fuzzy Systems, 2002, 10, 360-374.	6.5	8
54	Local similarity measures for demons-like registration algorithms. , 2008, , .		8

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55	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.	3.6	8
56	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.	1.0	8
57	Apparent propagator anisotropy from single-shell diffusion MRI acquisitions. Magnetic Resonance in Medicine, 2021, 85, 2869-2881.	1.9	8
58	Fast Inference in SAM Fuzzy Systems Using Transition Matrices. IEEE Transactions on Fuzzy Systems, 2004, 12, 170-182.	6.5	7
59	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.	1.9	7
60	Outlier Rejection for Diffusion Weighted Imaging. , 2007, 10, 161-168.		7
61	Synthetic MRI improves radiomics-based glioblastoma survival prediction. NMR in Biomedicine, 2022, 35, e4754.	1.6	7
62	Improving GRAPPA reconstruction by frequency discrimination in the ACS lines. International Journal of Computer Assisted Radiology and Surgery, 2015, 10, 1699-1710.	1.7	6
63	Multimodal fusion analysis of structural connectivity and gray matter morphology in migraine. Human Brain Mapping, 2021, 42, 908-921.	1.9	6
64	Bias of Least Squares Approaches for Diffusion Tensor Estimation from Array Coils in DT-MRI. Lecture Notes in Computer Science, 2009, 12, 919-926.	1.0	6
65	A maximum likelihood approach to diffeomorphic speckle tracking for 3D strain estimation in echocardiography. Medical Image Analysis, 2015, 24, 90-105.	7.0	5
66	Fuzzy feedback system analysis using transition matrices. Fuzzy Sets and Systems, 2006, 157, 516-543.	1.6	4
67	Anisotropic LMMSE denoising of MRI based on statistical tissue models. , 2012, , .		4
68	A MRI phantom for cardiac perfusion simulation. , 2012, , .		4
69	Fully Automatic Detection of Salient Features in 3-D Transesophageal Images. Ultrasound in Medicine and Biology, 2014, 40, 2868-2884.	0.7	4
70	Variance stabilization of noncentral-chi data: Application to noise estimation in MRI. , 2016, , .		4
71	On the Blurring of the Funk-Radon Transform in Q-Ball Imaging. Lecture Notes in Computer Science, 2009, , 415-422.	1.0	4
72	Speckle Tracking in Interpolated Echocardiography to Estimate Heart Motion. Lecture Notes in Computer Science, 2013, , 325-333.	1.0	4

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73	Moment-based representation of the diffusion inside the brain from reduced DMRI acquisitions: Generalized AMURA. <i>Medical Image Analysis</i> , 2022, 77, 102356.	7.0	4
74	Hierarchical fuzzy systems with FITM. , 0, , .		3
75	P6D-4 Analysis of Ultrasound Images Based on Local Statistics. Application to the Diagnosis of Developmental Dysplasia of the Hip. <i>Proceedings IEEE Ultrasonics Symposium</i> , 2007, , .	0.0	3
76	Tissue Identification in Ultrasound Images using Rayleigh Local Parameter Estimation. , 2007, , .		3
77	Strain Rate Tensor estimation in cine cardiac MRI based on elastic image registration. , 2008, , .		3
78	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
79	DWI acquisition schemes and Diffusion Tensor estimation: A simulation-based study. , 2010, 2010, 3317-20.		3
80	Blind estimation of spatially variant noise in GRAPPA MRI. , 2015, , .		3
81	Spatially-variant noise filtering in magnetic resonance imaging: A consensus-based approach. <i>Knowledge-Based Systems</i> , 2016, 106, 264-273.	4.0	3
82	Robust estimation of the apparent diffusion coefficient invariant to acquisition noise and physiological motion. <i>Magnetic Resonance Imaging</i> , 2018, 53, 123-133.	1.0	3
83	Single-Shell Return-to-the-Origin Probability Diffusion Mri Measure Under a Non-Stationary Rician Distributed Noise. , 2019, , .		3
84	A direct calculation of moments of the sample variance. <i>Mathematics and Computers in Simulation</i> , 2012, 82, 790-804.	2.4	2
85	Optimal real-time estimation in diffusion tensor imaging. <i>Magnetic Resonance Imaging</i> , 2012, 30, 506-517.	1.0	2
86	Strain rate tensor estimation from echocardiography for quantitative assessment of functional mitral regurgitation. , 2013, , .		2
87	A variationally based weighted re-initialization method for geometric active contours. , 2010, , .		1
88	Deblurring of probabilistic ODFs in quantitative diffusion MRI. , 2012, , .		1
89	Atlas-based segmentation of white matter structures from DTI using tensor invariants and orientation. , 2013, 2013, 503-6.		1
90	Noise estimation in magnetic resonance SENSE reconstructed data. , 2013, 2013, 1104-7.		1

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91	Fast Anisotropic Speckle Filter for Ultrasound Medical Images. IFMBE Proceedings, 2014, , 253-256.	0.2	1
92	On the blurring of the Funk-Radon transform in Q-Ball imaging. , 2009, 12, 415-22.		1
93	A methodology for quality assessment in tensor images. , 2008, , .		0
94	Realistic log-compressed law for ultrasound image recovery. , 2011, , .		0
95	Noise estimation in MR GRAPPA reconstructed data. , 2011, , .		0
96	A magnetic resonance software simulator for the evaluation of myocardial deformation estimation. Medical Engineering and Physics, 2013, 35, 1331-1340.	0.8	0
97	Merging squared-magnitude approaches to DWI denoising: An adaptive Wiener filter tuned to the anatomical contents of the image. , 2013, 2013, 507-10.		0
98	Robust estimation of MRI myocardial perfusion parameters. , 2013, 2013, 4382-5.		0
99	Anisotropic diffusion filtering for correlated multiple-coil MRI. , 2013, 2013, 2956-9.		0
100	Applying a parametric approach for the task of nonstationary noise removal with missing information. , 2013, , .		0
101	Computation of exact gâ€factor maps in 3D GRAPPA reconstructions. Magnetic Resonance in Medicine, 2019, 81, 1353-1367.	1.9	0
102	Quality Assessment of Tensor Images. Advances in Pattern Recognition, 2009, , 79-103.	0.8	0
103	Homeomorphic Geometrical Transform for Collision Response in Surgical Simulation. Lecture Notes in Computer Science, 2013, , 433-440.	1.0	0
104	Return-to-Axis Probability Calculation from Single-Shell Acquisitions. Mathematics and Visualization, 2019, , 29-41.	0.4	0
105	Probabilistic Tissue Characterization for Ultrasound Images. The Insight Journal, 2015, , .	0.2	0
106	Anisotropy measure from three diffusion-encoding gradient directions. Magnetic Resonance Imaging, 2022, 88, 38-43.	1.0	0
107	Micro-structure diffusion scalar measures from reduced MRI acquisitions. , 2020, 15, e0229526.		0
108	Micro-structure diffusion scalar measures from reduced MRI acquisitions. , 2020, 15, e0229526.		0

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109	Micro-structure diffusion scalar measures from reduced MRI acquisitions. , 2020, 15, e0229526.		0
110	Micro-structure diffusion scalar measures from reduced MRI acquisitions. , 2020, 15, e0229526.		0