Diego Salas-Gonzalez

List of Publications by Year
in descending order

121 papers	2,783 citations	136740 32 h-index	197535 49 g-index
125 all docs	125 docs citations	125 times ranked	2150 citing authors

#	Article	IF	Citations
1	Quantifying Differences Between Affine and Nonlinear Spatial Normalization of FP-CIT Spect Images. International Journal of Neural Systems, 2022, 32, 2250019.	3.2	12
2	Autosomal dominantly inherited alzheimer disease: Analysis of genetic subgroups by machine learning. Information Fusion, 2020, 58, 153-167.	11.7	17
3	Expectation–Maximization algorithm for finite mixture of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si57.svg"><mml:mrow><mml:mi>α</mml:mi></mml:mrow></mml:math>-stable distributions. Neurocomputing, 2020, 413, 210-216.	3.5	16
4	Morphological Characterization of Functional Brain Imaging by Isosurface Analysis in Parkinson's Disease. International Journal of Neural Systems, 2020, 30, 2050044.	3.2	24
5	Multivariate analysis of dual-point amyloid PET intended to assist the diagnosis of Alzheimer's disease. Neurocomputing, 2020, 417, 1-9.	3.5	8
6	Deep Convolutional Autoencoders vs PCA in a Highly-Unbalanced Parkinson's Disease Dataset: A DaTSCAN Study. Advances in Intelligent Systems and Computing, 2019, , 47-56.	0.5	12
7	Classification Improvement for Parkinson's Disease Diagnosis Using the Gradient Magnitude in DaTSCAN SPECT Images. Advances in Intelligent Systems and Computing, 2019, , 100-109.	0.5	1
8	Parkinson's Disease Detection Using Isosurfaces-Based Features and Convolutional Neural Networks. Frontiers in Neuroinformatics, 2019, 13, 48.	1.3	61
9	Support Vector Machine Failure in Imbalanced Datasets. Lecture Notes in Computer Science, 2019, , 412-419.	1.0	1
10	Isosurface Modelling of DatSCAN Images for Parkinson Disease Diagnosis. Lecture Notes in Computer Science, 2019, , 360-368.	1.0	3
11	Comparison Between Affine and Non-affine Transformations Applied to I$$^{[123]}$$-FP-CIT SPECT Images Used for Parkinson's Disease Diagnosis. Lecture Notes in Computer Science, 2019, , 379-388.	1.0	3
12	Assessing Mild Cognitive Impairment Progression using a Spherical Brain Mapping of Magnetic Resonance Imaging. Journal of Alzheimer's Disease, 2018, 65, 713-729.	1.2	9
13	Ensemble of random forests One vs. Rest classifiers for MCI and AD prediction using ANOVA cortical and subcortical feature selection and partial least squares. Journal of Neuroscience Methods, 2018, 302, 47-57.	1.3	69
14	[123I]FP-CIT SPECT brain imaging for Parkinson's diagnosis using contour lines. , 2018, , .		1
15	Robust Ensemble Classification Methodology for I123-Ioflupane SPECT Images and Multiple Heterogeneous Biomarkers in the Diagnosis of Parkinson's Disease. Frontiers in Neuroinformatics, 2018, 12, 53.	1.3	47
16	Case-based statistical learning applied to SPECT image classification. , 2017, , .		2
17	Case-Based Statistical Learning: A Non Parametric Implementation Applied to SPECT Images. Lecture Notes in Computer Science, 2017, , 305-313.	1.0	0
18	Analysis of ¹⁸F-DMFP-PET data using Hidden Markov Random Field and the Gaussian distribution to assist the diagnosis of Parkinsonism. Proceedings of SPIE, 2017, , .	0.8	0

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19	On the use of multi-dimensional scaling and electromagnetic tracking in high dose rate brachytherapy. Physics in Medicine and Biology, 2017, 62, 7959-7980.	1.6	9
20	A semi-supervised learning approach for model selection based on class-hypothesis testing. Expert Systems With Applications, 2017, 90, 40-49.	4.4	14
21	Case-Based Statistical Learning: A Non-Parametric Implementation With a Conditional-Error Rate SVM. IEEE Access, 2017, 5, 11468-11478.	2.6	31
22	Preprocessing of 18F-DMFP-PET Data Based on Hidden Markov Random Fields and the Gaussian Distribution. Frontiers in Aging Neuroscience, 2017, 9, 326.	1.7	12
23	Functional Brain Imaging Synthesis Based on Image Decomposition and Kernel Modeling: Application to Neurodegenerative Diseases. Frontiers in Neuroinformatics, 2017, 11, 65.	1.3	15
24	A Heavy Tailed Expectation Maximization Hidden Markov Random Field Model with Applications to Segmentation of MRI. Frontiers in Neuroinformatics, 2017, 11, 66.	1.3	1
25	On a Heavy-Tailed Intensity Normalization of the Parkinson's Progression Markers Initiative Brain Database. Lecture Notes in Computer Science, 2017, , 298-304.	1.0	1
26	A 3D Convolutional Neural Network Approach for the Diagnosis of Parkinson's Disease. Lecture Notes in Computer Science, 2017, , 324-333.	1.0	25
27	Automatic Separation of Parkinsonian Patients and Control Subjects Based on the Striatal Morphology. Lecture Notes in Computer Science, 2017, , 345-352.	1.0	3
28	Evaluating Alzheimer's Disease Diagnosis Using Texture Analysis. Communications in Computer and Information Science, 2017, , 470-481.	0.4	4
29	Simulating functional brain images in Alzheimer's disease. , 2016, , .		0
30	Magnetic resonance image classification using nonnegative matrix factorization and ensemble tree learning techniques. , 2016, , .		2
31	Statistical feature selection and classification models for Alzheimer's disease progression assessment. , 2016, , .		0
32	MRI brain segmentation using hidden Markov random fields with alpha-stable distributions. , 2016, , .		2
33	PETRA: A web-based system supporting computer aided diagnosis of alzheimer's disease. , 2016, , .		1
34	An Optimal Approach for Selecting Discriminant Regions for the Diagnosis of Alzheimer's Disease. Current Alzheimer Research, 2016, 13, 838-844.	0.7	8
35	A comparison among several methods for building templates in functional brain imaging. , 2015, , .		0
36	Building a FP-CIT SPECT Brain Template Using a Posterization Approach. Neuroinformatics, 2015, 13, 391-402.	1.5	31

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37	Intensity normalization in the analysis of functional DaTSCAN SPECT images: The α-stable distribution-based normalization method vs other approaches. Neurocomputing, 2015, 150, 4-15.	3.5	13
38	Comparison between Different Intensity Normalization Methods in 123I-Ioflupane Imaging for the Automatic Detection of Parkinsonism. PLoS ONE, 2015, 10, e0130274.	1.1	17
39	A Posterization Strategy for the Registration of [123I]FP-CIT SPECT Brain Images. , 2015, , .		0
40	Study of the Histogram of the Hippocampus in MRI Using the α-stable Distribution. Lecture Notes in Computer Science, 2015, , 216-221.	1.0	0
41	Improving MR brain image segmentation using self-organising maps and entropy-gradient clustering. Information Sciences, 2014, 262, 117-136.	4.0	60
42	Why Using the Alpha-stable Distribution in Neuroimage?. , 2014, , .		4
43	Early diagnosis of Alzheimer's disease based on Partial Least Squares and Support Vector Machine. Expert Systems With Applications, 2013, 40, 677-683.	4.4	39
44	Improving MRI segmentation with probabilistic GHSOM and multiobjective optimization. Neurocomputing, 2013, 114, 118-131.	3.5	37
45	Parameterization of the distribution of white and grey matter in MRI using the -stable distribution. Computers in Biology and Medicine, 2013, 43, 559-567.	3.9	16
46	Computer-aided diagnosis of Alzheimer's type dementia combining support vector machines and discriminant set of features. Information Sciences, 2013, 237, 59-72.	4.0	111
47	Two fully-unsupervised methods for MR brain image segmentation using SOM-based strategies. Applied Soft Computing Journal, 2013, 13, 2668-2682.	4.1	79
48	Linear intensity normalization of FP-CIT SPECT brain images using the α-stable distribution. NeuroImage, 2013, 65, 449-455.	2.1	45
49	Improving the Convergence Rate in Affine Registration of PET and SPECT Brain Images Using Histogram Equalization. Computational and Mathematical Methods in Medicine, 2013, 2013, 1-8.	0.7	3
50	Segmentation of Brain MRI Using SOM-FCM-Based Method and 3D Statistical Descriptors. Computational and Mathematical Methods in Medicine, 2013, 2013, 1-12.	0.7	48
51	Early Computer Aided Diagnosis of Parkinson's Disease Based on Nearest Neighbor Strategy and striatum Activation Threshold. Lecture Notes in Computer Science, 2013, , 258-265.	1.0	0
52	Automatic Orientation of Functional Brain Images for Multiplataform Software. Lecture Notes in Computer Science, 2013, , 406-411.	1.0	0
53	FDG and PIB biomarker PET analysis for the Alzheimer's disease detection using Association Rules. , 2012, , .		10
54	Intensity normalization of FP-CIT SPECT in patients with Parkinsonism using the &#x03B1;-stable distribution. , 2012, , .		2

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55	Bilateral symmetry aspects in computer-aided Alzheimer's disease diagnosis by single-photon emission-computed tomography imaging. Artificial Intelligence in Medicine, 2012, 56, 191-198.	3.8	8
56	Computer Aided Diagnosis tool for Alzheimer's Disease based on Mann–Whitney–Wilcoxon U-Test. Expert Systems With Applications, 2012, 39, 9676-9685.	4.4	86
57	A comparative study of feature extraction methods for the diagnosis of Alzheimer's disease using the ADNI database. Neurocomputing, 2012, 75, 64-71.	3.5	55
58	NMF-SVM Based CAD Tool Applied to Functional Brain Images for the Diagnosis of Alzheimer's Disease. IEEE Transactions on Medical Imaging, 2012, 31, 207-216.	5.4	132
59	MRI Brain Image Segmentation with Supervised SOM and Probability-Based Clustering Method. Lecture Notes in Computer Science, 2011, , 49-58.	1.0	10
60	Two approaches to selecting set of voxels for the diagnosis of Alzheimer¼s disease using brain SPECT images. , 2011, 21, 746-755.		4
61	18F-FDG PET imaging analysis for computer aided Alzheimer's diagnosis. Information Sciences, 2011, 181, 903-916.	4.0	101
62	GMM based SPECT image classification for the diagnosis of Alzheimer's disease. Applied Soft Computing Journal, 2011, 11, 2313-2325.	4.1	80
63	Computer aided diagnosis of Alzheimer's disease using component based SVM. Applied Soft Computing Journal, 2011, 11, 2376-2382.	4.1	59
64	Principal component analysis-based techniques and supervised classification schemes for the early detection of Alzheimer's disease. Neurocomputing, 2011, 74, 1260-1271.	3.5	141
65	Efficient mining of association rules for the early diagnosis of Alzheimer's disease. Physics in Medicine and Biology, 2011, 56, 6047-6063.	1.6	34
66	MR brain image segmentation by growing hierarchical SOM and probability clustering. Electronics Letters, 2011, 47, 585.	0.5	23
67	Bayesian Segmentation of Magnetic Resonance Images Using the α-Stable Distribution. Lecture Notes in Computer Science, 2011, , 99-106.	1.0	2
68	Distance Metric Learning as Feature Reduction Technique for the Alzheimer's Disease Diagnosis. Lecture Notes in Computer Science, 2011, , 68-76.	1.0	1
69	Analysis of Spect Brain Images Using Wilcoxon and Relative Entropy Criteria and Quadratic Multivariate Classifiers for the Diagnosis of Alzheimer's Disease. Lecture Notes in Computer Science, 2011, , 41-48.	1.0	0
70	Feature selection using factor analysis for Alzheimer's diagnosis using PET images. Medical Physics, 2010, 37, 6084-6095.	1.6	63
71	Modelling with mixture of symmetric stable distributions using Gibbs sampling. Signal Processing, 2010, 90, 774-783.	2.1	35
72	Projecting independent components of SPECT images for computer aided diagnosis of Alzheimer's disease. Pattern Recognition Letters, 2010, 31, 1342-1347.	2.6	38

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73	Machine learning for very early Alzheimer's Disease diagnosis; a ¹⁸F-FDG and PiB PET comparison. , 2010, , .		4
74	Alzheimer's disease detection in functional images using 2D Gabor wavelet analysis. Electronics Letters, 2010, 46, 556.	0.5	13
75	Improving the convergence rate in affine registration of PET brain images using histogram matching. , 2010, , .		0
76	Erratum for 'Alzheimer's disease detection in functional images using 2D Gabor wavelet analysis'. Electronics Letters, 2010, 46, 1038.	0.5	0
77	Computer-aided diagnosis of Alzheimer's disease using support vector machines and classification trees. Physics in Medicine and Biology, 2010, 55, 2807-2817.	1.6	50
78	Computer aided diagnosis system for the Alzheimer's disease based on partial least squares and random forest SPECT image classification. Neuroscience Letters, 2010, 472, 99-103.	1.0	110
79	Classification of functional brain images using a GMM-based multi-variate approach. Neuroscience Letters, 2010, 474, 58-62.	1.0	40
80	Analysis of SPECT brain images for the diagnosis of Alzheimer's disease based on NMF for feature extraction. Neuroscience Letters, 2010, 479, 192-196.	1.0	18
81	Early Alzheimer's disease diagnosis using partial least squares and random forests. , 2010, , .		6
82	Selecting Regions of Interest in SPECT Images Using Wilcoxon Test for the Diagnosis of Alzheimer's Disease. Lecture Notes in Computer Science, 2010, , 446-451.	1.0	9
83	Effective Diagnosis of Alzheimer's Disease by Means of Association Rules. Lecture Notes in Computer Science, 2010, , 452-459.	1.0	9
84	Partial Least Squares for Feature Extraction of SPECT Images. Lecture Notes in Computer Science, 2010, , 476-483.	1.0	1
85	NMF-Based Analysis of SPECT Brain Images for the Diagnosis of Alzheimer's Disease. Lecture Notes in Computer Science, 2010, , 468-475.	1.0	0
86	Exploring Symmetry to Assist Alzheimer's Disease Diagnosis. Lecture Notes in Computer Science, 2010, , 516-523.	1.0	1
87	Modelling and Assessing Differential Gene Expression Using the Alpha Stable Distribution. International Journal of Biostatistics, 2009, 5, .	0.4	4
88	Skewness as feature for the diagnosis of Alzheimer's disease using SPECT images. , 2009, , .		3
89	Computer aided diagnosis of the Alzheimer's disease combining SPECT-based feature selection and random forest classifiers. , 2009, , .		13
90	Neurological image classification for the Alzheimer's Disease diagnosis using Kernel PCA and Support Vector Machines. , 2009, , .		7

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91	Automatic selection of ROIs using a model-based clustering approach. , 2009, , .		2
92	fMRI data analysis using a novel clustering technique. , 2009, , .		1
93	Alzheimer's diagnosis using eigenbrains and support vector machines. Electronics Letters, 2009, 45, 342.	0.5	56
94	Finite mixture of Î±-stable distributions. , 2009, 19, 250-264.		36
95	A heavy-tailed empirical Bayes method for replicated microarray data. Computational Statistics and Data Analysis, 2009, 53, 1535-1546.	0.7	7
96	Automatic selection of ROIs in functional imaging using Gaussian mixture models. Neuroscience Letters, 2009, 460, 108-111.	1.0	39
97	Analysis of SPECT brain images for the diagnosis of Alzheimer's disease using moments and support vector machines. Neuroscience Letters, 2009, 461, 60-64.	1.0	35
98	SVM-based computer-aided diagnosis of the Alzheimer's disease using t-test NMSE feature selection with feature correlation weighting. Neuroscience Letters, 2009, 461, 293-297.	1.0	123
99	SVM-based CAD system for early detection of the Alzheimer's disease using kernel PCA and LDA. Neuroscience Letters, 2009, 464, 233-238.	1.0	107
100	SPECT image classification using random forests. Electronics Letters, 2009, 45, 604.	0.5	35
101	Automatic tool for Alzheimer's disease diagnosis using PCA and Bayesian classification rules. Electronics Letters, 2009, 45, 389.	0.5	82
102	SPECT image classification based on NMSE feature correlation weighting and SVM. , 2009, , .		7
103	Multivariate approaches for Alzheimer's disease diagnosis using Bayesian classifiers. , 2009, , .		8
104	Effective Detection of the Alzheimer Disease by Means of Coronal NMSE SVM Feature Classification. Lecture Notes in Computer Science, 2009, , 337-344.	1.0	4
105	Support Vector Machines and Neural Networks for the Alzheimerâ€™s Disease Diagnosis Using PCA. Lecture Notes in Computer Science, 2009, , 142-149.	1.0	5
106	Functional Brain Image Classification Techniques for Early Alzheimer Disease Diagnosis. Lecture Notes in Computer Science, 2009, , 150-157.	1.0	5
107	Classification of SPECT Images Using Clustering Techniques Revisited. Lecture Notes in Computer Science, 2009, , 168-178.	1.0	4
108	SPECT Image Classification Techniques for Computer Aided Diagnosis of the Alzheimer Disease. Lecture Notes in Computer Science, 2009, , 941-948.	1.0	4

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109	Automatic System for Alzheimer's Disease Diagnosis Using Eigenbrains and Bayesian Classification Rules. Lecture Notes in Computer Science, 2009, , 949-956.	1.0	9
110	Selecting Regions of Interest for the Diagnosis of Alzheimer's Disease in Brain SPECT Images Using Welch's t-Test. Lecture Notes in Computer Science, 2009, , 965-972.	1.0	1
111	Automatic Classification System for the Diagnosis of Alzheimer Disease Using Component-Based SVM Aggregations. Lecture Notes in Computer Science, 2009, , 402-409.	1.0	7
112	Early Detection of the Alzheimer Disease Combining Feature Selection and Kernel Machines. Lecture Notes in Computer Science, 2009, , 410-417.	1.0	8
113	Computer Aided Diagnosis of Alzheimer Disease Using Support Vector Machines and Classification Trees. Lecture Notes in Computer Science, 2009, , 418-425.	1.0	4
114	Selecting Regions of Interest for the Diagnosis of Alzheimer Using Brain SPECT Images. Lecture Notes in Computer Science, 2009, , 399-406.	1.0	0
115	Analysis of Brain SPECT Images for the Diagnosis of Alzheimer Disease Using First and Second Order Moments. Lecture Notes in Computer Science, 2009, , 124-133.	1.0	0
116	Automatic computer aided diagnosis tool using component-based SVM. , 2008, , .		32
117	Improved Gauss-Newton optimisation methods in affine registration of SPECT brain images. Electronics Letters, 2008, 44, 1291.	0.5	58
118	A comparison of nonlinear least-square optimization methods in affine registration of SPECT images. , 2008, , .		0
119	Clustering approach for the classificarion of SPECT images. , 2008, , .		5
120	Microarray Gene Expression and Stable Laws. , 2007, , .		0
121	Estimation of Mixtures of Symmetric Alpha Stable Distributions With an Unknown Number of Components. , 0, , .		2