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	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
2	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
3	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
4	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
5	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
6	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
7	18F-FDG PET imaging analysis for computer aided Alzheimer's diagnosis. Information Sciences, 2011, 181, 903-916.	4.0	101
8	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
9	Automatic tool for Alzheimer's disease diagnosis using PCA and Bayesian classification rules. Electronics Letters, 2009, 45, 389.	0.5	82
10	GMM based SPECT image classification for the diagnosis of Alzheimer's disease. Applied Soft Computing Journal, 2011, 11, 2313-2325.	4.1	80
11	Two fully-unsupervised methods for MR brain image segmentation using SOM-based strategies. Applied Soft Computing Journal, 2013, 13, 2668-2682.	4.1	79
12	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
13	Feature selection using factor analysis for Alzheimer's diagnosis using PET images. Medical Physics, 2010, 37, 6084-6095.	1.6	63
14	Parkinson's Disease Detection Using Isosurfaces-Based Features and Convolutional Neural Networks. Frontiers in Neuroinformatics, 2019, 13, 48.	1.3	61
15	Improving MR brain image segmentation using self-organising maps and entropy-gradient clustering. Information Sciences, 2014, 262, 117-136.	4.0	60
16	Computer aided diagnosis of Alzheimer's disease using component based SVM. Applied Soft Computing Journal, 2011, 11, 2376-2382.	4.1	59
17	Improved Gauss-Newton optimisation methods in affine registration of SPECT brain images. Electronics Letters, 2008, 44, 1291.	0.5	58
18	Alzheimer's diagnosis using eigenbrains and support vector machines. Electronics Letters, 2009, 45, 342.	0.5	56

#	Article	IF	Citations
19	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
20	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
21	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
22	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
23	Linear intensity normalization of FP-CIT SPECT brain images using the α-stable distribution. NeuroImage, 2013, 65, 449-455.	2.1	45
24	Classification of functional brain images using a GMM-based multi-variate approach. Neuroscience Letters, 2010, 474, 58-62.	1.0	40
25	Automatic selection of ROIs in functional imaging using Gaussian mixture models. Neuroscience Letters, 2009, 460, 108-111.	1.0	39
26	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
27	Projecting independent components of SPECT images for computer aided diagnosis of Alzheimer's disease. Pattern Recognition Letters, 2010, 31, 1342-1347.	2.6	38
28	Improving MRI segmentation with probabilistic GHSOM and multiobjective optimization. Neurocomputing, 2013, 114, 118-131.	3.5	37
29	Finite mixture of α-stable distributions. , 2009, 19, 250-264.		36
30	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
31	SPECT image classification using random forests. Electronics Letters, 2009, 45, 604.	0.5	35
32	Modelling with mixture of symmetric stable distributions using Gibbs sampling. Signal Processing, 2010, 90, 774-783.	2.1	35
33	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
34	Automatic computer aided diagnosis tool using component-based SVM. , 2008, , .		32
35	Building a FP-CIT SPECT Brain Template Using a Posterization Approach. Neuroinformatics, 2015, 13, 391-402.	1.5	31
36	Case-Based Statistical Learning: A Non-Parametric Implementation With a Conditional-Error Rate SVM. IEEE Access, 2017, 5, 11468-11478.	2.6	31

#	Article	IF	Citations
37	A 3D Convolutional Neural Network Approach for the Diagnosis of Parkinson's Disease. Lecture Notes in Computer Science, 2017, , 324-333.	1.0	25
38	Morphological Characterization of Functional Brain Imaging by Isosurface Analysis in Parkinson's Disease. International Journal of Neural Systems, 2020, 30, 2050044.	3.2	24
39	MR brain image segmentation by growing hierarchical SOM and probability clustering. Electronics Letters, 2011, 47, 585.	0.5	23
40	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
41	Autosomal dominantly inherited alzheimer disease: Analysis of genetic subgroups by machine learning. Information Fusion, 2020, 58, 153-167.	11.7	17
42	Comparison between Different Intensity Normalization Methods in 123I-Ioflupane Imaging for the Automatic Detection of Parkinsonism. PLoS ONE, 2015, 10, e0130274.	1.1	17
43	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
44	Expectation–Maximization algorithm for finite mixture of α-stable distributions. Neurocomputing, 2020, 413, 210-216.	3.5	16
45	Functional Brain Imaging Synthesis Based on Image Decomposition and Kernel Modeling: Application to Neurodegenerative Diseases. Frontiers in Neuroinformatics, 2017, 11, 65.	1.3	15
46	A semi-supervised learning approach for model selection based on class-hypothesis testing. Expert Systems With Applications, 2017, 90, 40-49.	4.4	14
47	Computer aided diagnosis of the Alzheimer's disease combining SPECT-based feature selection and random forest classifiers. , 2009, , .		13
48	Alzheimer's disease detection in functional images using 2D Gabor wavelet analysis. Electronics Letters, 2010, 46, 556.	0.5	13
49	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
50	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
51	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
52	Quantifying Differences Between Affine and Nonlinear Spatial Normalization of FP-CIT Spect Images. International Journal of Neural Systems, 2022, 32, 2250019.	3.2	12
53	MRI Brain Image Segmentation with Supervised SOM and Probability-Based Clustering Method. Lecture Notes in Computer Science, 2011, , 49-58.	1.0	10
54	FDG and PIB biomarker PET analysis for the Alzheimer's disease detection using Association Rules. , 2012, , .		10

#	Article	IF	Citations
55	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
56	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
57	Automatic System for Alzheimer's Disease Diagnosis Using Eigenbrains and Bayesian Classification Rules. Lecture Notes in Computer Science, 2009, , 949-956.	1.0	9
58	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
59	Effective Diagnosis of Alzheimer's Disease by Means of Association Rules. Lecture Notes in Computer Science, 2010, , 452-459.	1.0	9
60	Multivariate approaches for Alzheimer's disease diagnosis using Bayesian classifiers. , 2009, , .		8
61	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
62	Multivariate analysis of dual-point amyloid PET intended to assist the diagnosis of Alzheimer's disease. Neurocomputing, 2020, 417, 1-9.	3.5	8
63	Early Detection of the Alzheimer Disease Combining Feature Selection and Kernel Machines. Lecture Notes in Computer Science, 2009, , 410-417.	1.0	8
64	An Optimal Approach for Selecting Discriminant Regions for the Diagnosis of Alzheimer's Disease. Current Alzheimer Research, 2016, 13, 838-844.	0.7	8
65	Neurological image classification for the Alzheimer's Disease diagnosis using Kernel PCA and Support Vector Machines. , 2009, , .		7
66	A heavy-tailed empirical Bayes method for replicated microarray data. Computational Statistics and Data Analysis, 2009, 53, 1535-1546.	0.7	7
67	SPECT image classification based on NMSE feature correlation weighting and SVM. , 2009, , .		7
68	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
69	Early Alzheimer's disease diagnosis using partial least squares and random forests. , 2010, , .		6
70	Clustering approach for the classificarion of SPECT images. , 2008, , .		5
71	Support Vector Machines and Neural Networks for the Alzheimer's Disease Diagnosis Using PCA. Lecture Notes in Computer Science, 2009, , 142-149.	1.0	5
72	Functional Brain Image Classification Techniques for Early Alzheimer Disease Diagnosis. Lecture Notes in Computer Science, 2009, , 150-157.	1.0	5

#	Article	IF	Citations
73	Modelling and Assessing Differential Gene Expression Using the Alpha Stable Distribution. International Journal of Biostatistics, 2009, 5, .	0.4	4
74	Machine learning for very early Alzheimer's Disease diagnosis; a ^{18}F-FDG and PiB PET comparison. , 2010, , .		4
75	Two approaches to selecting set of voxels for the diagnosis of AlzheimerÊ¼s disease using brain SPECT images. , 2011, 21, 746-755.		4
76	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
77	Classification of SPECT Images Using Clustering Techniques Revisited. Lecture Notes in Computer Science, 2009, , 168-178.	1.0	4
78	SPECT Image Classification Techniques for Computer Aided Diagnosis of the Alzheimer Disease. Lecture Notes in Computer Science, 2009, , 941-948.	1.0	4
79	Computer Aided Diagnosis of Alzheimer Disease Using Support Vector Machines and Classification Trees. Lecture Notes in Computer Science, 2009, , 418-425.	1.0	4
80	Why Using the Alpha-stable Distribution in Neuroimage?. , 2014, , .		4
81	Evaluating Alzheimerâ€™s Disease Diagnosis Using Texture Analysis. Communications in Computer and Information Science, 2017, , 470-481.	0.4	4
82	Skewness as feature for the diagnosis of Alzheimer's disease using SPECT images. , 2009, , .		3
83	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
84	Isosurface Modelling of DatSCAN Images for Parkinson Disease Diagnosis. Lecture Notes in Computer Science, 2019, , 360-368.	1.0	3
85	Comparison Between Affine and Non-affine Transformations Applied to I$$^{[123]}$$-FP-CIT SPECT Images Used for Parkinsonâ€™s Disease Diagnosis. Lecture Notes in Computer Science, 2019, , 379-388.	1.0	3
86	Automatic Separation of Parkinsonian Patients and Control Subjects Based on the Striatal Morphology. Lecture Notes in Computer Science, 2017, , 345-352.	1.0	3
87	Estimation of Mixtures of Symmetric Alpha Stable Distributions With an Unknown Number of Components. , 0, , .		2
88	Automatic selection of ROIs using a model-based clustering approach. , 2009, , .		2
89	Intensity normalization of FP-CIT SPECT in patients with Parkinsonism using the α-stable distribution. , 2012, , .		2
90	Magnetic resonance image classification using nonnegative matrix factorization and ensemble tree learning techniques. , 2016, , .		2

#	Article	IF	Citations
91	MRI brain segmentation using hidden Markov random fields with alpha-stable distributions. , 2016, , .		2
92	Case-based statistical learning applied to SPECT image classification. , 2017, , .		2
93	Bayesian Segmentation of Magnetic Resonance Images Using the Î±-Stable Distribution. Lecture Notes in Computer Science, 2011, , 99-106.	1.0	2
94	fMRI data analysis using a novel clustering technique. , 2009, , .		1
95	PETRA: A web-based system supporting computer aided diagnosis of alzheimer's disease. , 2016, , .		1
96	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
97	[123I]FP-CIT SPECT brain imaging for Parkinsonâ€™s diagnosis using contour lines. , 2018, , .		1
98	Classification Improvement for Parkinsonâ€™s Disease Diagnosis Using the Gradient Magnitude in DaTSCAN SPECT Images. Advances in Intelligent Systems and Computing, 2019, , 100-109.	0.5	1
99	Support Vector Machine Failure in Imbalanced Datasets. Lecture Notes in Computer Science, 2019, , 412-419.	1.0	1
100	On a Heavy-Tailed Intensity Normalization of the Parkinsonâ€™s Progression Markers Initiative Brain Database. Lecture Notes in Computer Science, 2017, , 298-304.	1.0	1
101	Selecting Regions of Interest for the Diagnosis of Alzheimerâ€™s Disease in Brain SPECT Images Using Welchâ€™s t-Test. Lecture Notes in Computer Science, 2009, , 965-972.	1.0	1
102	Partial Least Squares for Feature Extraction of SPECT Images. Lecture Notes in Computer Science, 2010, , 476-483.	1.0	1
103	Distance Metric Learning as Feature Reduction Technique for the Alzheimerâ€™s Disease Diagnosis. Lecture Notes in Computer Science, 2011, , 68-76.	1.0	1
104	Exploring Symmetry to Assist Alzheimerâ€™s Disease Diagnosis. Lecture Notes in Computer Science, 2010, , 516-523.	1.0	1
105	Microarray Gene Expression and Stable Laws. , 2007, , .		0
106	A comparison of nonlinear least-square optimization methods in affine registration of SPECT images. , 2008, , .		0
107	Improving the convergence rate in affine registration of PET brain images using histogram matching. , 2010, , .		0
108	Erratum for â€˜Alzheimer's disease detection in functional images using 2D Gabor wavelet analysisâ€™. Electronics Letters, 2010, 46, 1038.	0.5	0

#	Article	IF	Citations
109	A comparison among several methods for building templates in functional brain imaging. , 2015, , .		0
110	Simulating functional brain images in Alzheimer's disease. , 2016, , .		0
111	Statistical feature selection and classification models for Alzheimer's disease progression assessment. , 2016, , .		0
112	Case-Based Statistical Learning: A Non Parametric Implementation Applied to SPECT Images. Lecture Notes in Computer Science, 2017, , 305-313.	1.0	0
113	Analysis of ^{18}F-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
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	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
117	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
118	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
119	Automatic Orientation of Functional Brain Images for Multiplataform Software. Lecture Notes in Computer Science, 2013, , 406-411.	1.0	0
120	A Posterization Strategy for the Registration of [123I]FP-CIT SPECT Brain Images. , 2015, , .		0
121	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