

Fermã-n Segovia Romã;n

List of Publications by Year in descending order

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72
papers

2,033
citations

257450

24
h-index

243625

44
g-index

74
all docs

74
docs citations

74
times ranked

1753
citing authors

#	ARTICLE	IF	CITATIONS
1	Early diagnosis of Alzheimer's disease based on partial least squares, principal component analysis and support vector machine using segmented MRI images. <i>Neurocomputing</i> , 2015, 151, 139-150.	5.9	214
2	Principal component analysis-based techniques and supervised classification schemes for the early detection of Alzheimer's disease. <i>Neurocomputing</i> , 2011, 74, 1260-1271.	5.9	141
3	SVM-based computer-aided diagnosis of the Alzheimer's disease using t-test NMSE feature selection with feature correlation weighting. <i>Neuroscience Letters</i> , 2009, 461, 293-297.	2.1	123
4	Computer aided diagnosis system for the Alzheimer's disease based on partial least squares and random forest SPECT image classification. <i>Neuroscience Letters</i> , 2010, 472, 99-103.	2.1	110
5	SVM-based CAD system for early detection of the Alzheimer's disease using kernel PCA and LDA. <i>Neuroscience Letters</i> , 2009, 464, 233-238.	2.1	107
6	18F-FDG PET imaging analysis for computer aided Alzheimer's diagnosis. <i>Information Sciences</i> , 2011, 181, 903-916.	6.9	101
7	Automatic assistance to Parkinson's disease diagnosis in DaTSCAN SPECT imaging. <i>Medical Physics</i> , 2012, 39, 5971-5980.	3.0	92
8	Automatic tool for Alzheimer's disease diagnosis using PCA and Bayesian classification rules. <i>Electronics Letters</i> , 2009, 45, 389.	1.0	82
9	GMM based SPECT image classification for the diagnosis of Alzheimer's disease. <i>Applied Soft Computing Journal</i> , 2011, 11, 2313-2325.	7.2	80
10	Feature selection using factor analysis for Alzheimer's diagnosis using PET images. <i>Medical Physics</i> , 2010, 37, 6084-6095.	3.0	63
11	Computer aided diagnosis of Alzheimer's disease using component based SVM. <i>Applied Soft Computing Journal</i> , 2011, 11, 2376-2382.	7.2	59
12	Alzheimer's diagnosis using eigenbrains and support vector machines. <i>Electronics Letters</i> , 2009, 45, 342.	1.0	56
13	Improved Parkinsonism diagnosis using a partial least squares based approach. <i>Medical Physics</i> , 2012, 39, 4395-4403.	3.0	55
14	A comparative study of feature extraction methods for the diagnosis of Alzheimer's disease using the ADNI database. <i>Neurocomputing</i> , 2012, 75, 64-71.	5.9	55
15	Computer-aided diagnosis of Alzheimer's disease using support vector machines and classification trees. <i>Physics in Medicine and Biology</i> , 2010, 55, 2807-2817.	3.0	50
16	Robust Ensemble Classification Methodology for I123-Ioflupane SPECT Images and Multiple Heterogeneous Biomarkers in the Diagnosis of Parkinson's Disease. <i>Frontiers in Neuroinformatics</i> , 2018, 12, 53.	2.5	47
17	Classification of functional brain images using a GMM-based multi-variate approach. <i>Neuroscience Letters</i> , 2010, 474, 58-62.	2.1	40
18	Early diagnosis of Alzheimer's disease based on Partial Least Squares and Support Vector Machine. <i>Expert Systems With Applications</i> , 2013, 40, 677-683.	7.6	39

#	ARTICLE	IF	CITATIONS
19	Projecting independent components of SPECT images for computer aided diagnosis of Alzheimer's disease. Pattern Recognition Letters, 2010, 31, 1342-1347.	4.2	38
20	Analysis of SPECT brain images for the diagnosis of Alzheimer's disease using moments and support vector machines. Neuroscience Letters, 2009, 461, 60-64.	2.1	35
21	SPECT image classification using random forests. Electronics Letters, 2009, 45, 604.	1.0	35
22	Multivariate Analysis of 18F-DMFP PET Data to Assist the Diagnosis of Parkinsonism. Frontiers in Neuroinformatics, 2017, 11, 23.	2.5	32
23	Combining PET Images and Neuropsychological Test Data for Automatic Diagnosis of Alzheimer's Disease. PLoS ONE, 2014, 9, e88687.	2.5	31
24	Identifying endophenotypes of autism: a multivariate approach. Frontiers in Computational Neuroscience, 2014, 8, 60.	2.1	27
25	A 3D Convolutional Neural Network Approach for the Diagnosis of Parkinson's Disease. Lecture Notes in Computer Science, 2017, , 324-333.	1.3	25
26	Distinguishing Parkinson's disease from atypical parkinsonian syndromes using PET data and a computer system based on support vector machines and Bayesian networks. Frontiers in Computational Neuroscience, 2015, 9, 137.	2.1	23
27	Visual neglect: Is there a relationship between impaired spatial working memory and re-cancellation?. Experimental Brain Research, 2014, 232, 3333-3343.	1.5	19
28	Support for distinct subcomponents of spatial working memory: A double dissociation between spatial simultaneous and spatial sequential performance in unilateral neglect. Cognitive Neuropsychology, 2015, 32, 14-28.	1.1	19
29	Analysis of SPECT brain images for the diagnosis of Alzheimer's disease based on NMF for feature extraction. Neuroscience Letters, 2010, 479, 192-196.	2.1	18
30	Autosomal dominantly inherited alzheimer disease: Analysis of genetic subgroups by machine learning. Information Fusion, 2020, 58, 153-167.	19.1	17
31	Computer aided diagnosis of the Alzheimer's disease combining SPECT-based feature selection and random forest classifiers. , 2009, , .		13
32	Alzheimer's disease detection in functional images using 2D Gabor wavelet analysis. Electronics Letters, 2010, 46, 556.	1.0	13
33	Preprocessing of 18F-DMFP-PET Data Based on Hidden Markov Random Fields and the Gaussian Distribution. Frontiers in Aging Neuroscience, 2017, 9, 326.	3.4	12
34	Automatic System for Alzheimer's Disease Diagnosis Using Eigenbrains and Bayesian Classification Rules. Lecture Notes in Computer Science, 2009, , 949-956.	1.3	9
35	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.	1.3	9
36	Effective Diagnosis of Alzheimer's Disease by Means of Association Rules. Lecture Notes in Computer Science, 2010, , 452-459.	1.3	9

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37	Multivariate approaches for Alzheimer's disease diagnosis using Bayesian classifiers. , 2009, , .		8
38	Early Detection of the Alzheimer Disease Combining Feature Selection and Kernel Machines. Lecture Notes in Computer Science, 2009, , 410-417.	1.3	8
39	An Optimal Approach for Selecting Discriminant Regions for the Diagnosis of Alzheimer's Disease. Current Alzheimer Research, 2016, 13, 838-844.	1.4	8
40	Neurological image classification for the Alzheimer's Disease diagnosis using Kernel PCA and Support Vector Machines. , 2009, , .		7
41	SPECT image classification based on NMSE feature correlation weighting and SVM. , 2009, , .		7
42	Automatic Classification System for the Diagnosis of Alzheimer Disease Using Component-Based SVM Aggregations. Lecture Notes in Computer Science, 2009, , 402-409.	1.3	7
43	Early Alzheimer's disease diagnosis using partial least squares and random forests. , 2010, , .		6
44	Multiclass classification of 18F-DMFP-PET data to assist the diagnosis of parkinsonism. , 2016, , .		6
45	Functional Brain Image Classification Techniques for Early Alzheimer Disease Diagnosis. Lecture Notes in Computer Science, 2009, , 150-157.	1.3	5
46	Machine learning for very early Alzheimer's Disease diagnosis; a ¹⁸ F-FDG and PiB PET comparison. , 2010, , .		4
47	Two approaches to selecting set of voxels for the diagnosis of Alzheimer's disease using brain SPECT images. , 2011, 21, 746-755.		4
48	Effective Detection of the Alzheimer Disease by Means of Coronal NMSE SVM Feature Classification. Lecture Notes in Computer Science, 2009, , 337-344.	1.3	4
49	Classification of SPECT Images Using Clustering Techniques Revisited. Lecture Notes in Computer Science, 2009, , 168-178.	1.3	4
50	SPECT Image Classification Techniques for Computer Aided Diagnosis of the Alzheimer Disease. Lecture Notes in Computer Science, 2009, , 941-948.	1.3	4
51	Computer Aided Diagnosis of Alzheimer Disease Using Support Vector Machines and Classification Trees. Lecture Notes in Computer Science, 2009, , 418-425.	1.3	4
52	Skewness as feature for the diagnosis of Alzheimer's disease using SPECT images. , 2009, , .		3
53	Posters Group 1. European Journal of Nuclear Medicine and Molecular Imaging, 2012, 39, 384-497.	6.4	3
54	PET imaging analysis using a parcelation approach and multiple kernel classification. , 2014, , .		3

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55	Cortical and subcortical contributions to state- and strength-based perceptual judgments. <i>Neuropsychologia</i> , 2014, 64, 145-156.	1.6	3
56	Automatic Separation of Parkinsonian Patients and Control Subjects Based on the Striatal Morphology. <i>Lecture Notes in Computer Science</i> , 2017, , 345-352.	1.3	3
57	Effective Diagnosis of Alzheimer's Disease by Means of Distance Metric Learning and Random Forest. <i>Lecture Notes in Computer Science</i> , 2011, , 59-67.	1.3	3
58	Combining Feature Extraction Methods to Assist the Diagnosis of Alzheimer's Disease. <i>Current Alzheimer Research</i> , 2016, 13, 831-837.	1.4	3
59	Automatic selection of ROIs using a model-based clustering approach. , 2009, , .		2
60	Intensity normalization of FP-CIT SPECT in patients with Parkinsonism using the α-stable distribution. , 2012, , .		2
61	Case-based statistical learning applied to SPECT image classification. , 2017, , .		2
62	Assisting the Diagnosis of Neurodegenerative Disorders Using Principal Component Analysis and TensorFlow. <i>Advances in Intelligent Systems and Computing</i> , 2017, , 43-52.	0.6	2
63	fMRI data analysis using a novel clustering technique. , 2009, , .		1
64	A DSP embedded system. Application to digital communication systems. , 2012, , .		1
65	Automatic Differentiation between Alzheimer's Disease and Mild Cognitive Impairment Combining PET Data and Psychological Scores. , 2013, , .		1
66	[123I]FP-CIT SPECT brain imaging for Parkinson's diagnosis using contour lines. , 2018, , .		1
67	Partial Least Squares for Feature Extraction of SPECT Images. <i>Lecture Notes in Computer Science</i> , 2010, , 476-483.	1.3	1
68	Improving the convergence rate in affine registration of PET brain images using histogram matching. , 2010, , .		0
69	Selecting Regions of Interest for the Diagnosis of Alzheimer Using Brain SPECT Images. <i>Lecture Notes in Computer Science</i> , 2009, , 399-406.	1.3	0
70	Analysis of Brain SPECT Images for the Diagnosis of Alzheimer Disease Using First and Second Order Moments. <i>Lecture Notes in Computer Science</i> , 2009, , 124-133.	1.3	0
71	NMF-Based Analysis of SPECT Brain Images for the Diagnosis of Alzheimer's Disease. <i>Lecture Notes in Computer Science</i> , 2010, , 468-475.	1.3	0
72	Automatic Orientation of Functional Brain Images for Multiplatform Software. <i>Lecture Notes in Computer Science</i> , 2013, , 406-411.	1.3	0