Ignacio A Illan

List of Publications by Year
in descending order

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108	2,561	159358	205818
papers	citations	30 h-index	48 g-index

111	111	111	2063
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Statistical Agnostic Mapping: A framework in neuroimaging based on concentration inequalities. Information Fusion, 2021, 66, 198-212.	11.7	19
2	Autosomal dominantly inherited alzheimer disease: Analysis of genetic subgroups by machine learning. Information Fusion, 2020, 58, 153-167.	11.7	17
3	Granger causality-based information fusion applied to electrical measurements from power transformers. Information Fusion, 2020, 57, 59-70.	11.7	9
4	Optimized One vs One Approach in Multiclass Classification for Early Alzheimerâ€™s Disease and Mild Cognitive Impairment Diagnosis. IEEE Access, 2020, 8, 96981-96993.	2.6	19
5	Estimating the Severity of Alzheimer's Disease Using Convolutional Neural Networks and Magnetic Resonance Imaging Data. , 2020, , .		0
6	Case-Based Support Vector Optimization for Medical-Imaging Imbalanced Datasets. Advances in Intelligent Systems and Computing, 2019, , 221-229.	0.5	0
7	Periodogram Connectivity of EEG Signals for the Detection of Dyslexia. Lecture Notes in Computer Science, 2019, , 350-359.	1.0	9
8	Support Vector Machine Failure in Imbalanced Datasets. Lecture Notes in Computer Science, 2019, , 412-419.	1.0	1
9	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
10	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
11	Automated Detection and Segmentation of Nonmass-Enhancing Breast Tumors with Dynamic Contrast-Enhanced Magnetic Resonance Imaging. Contrast Media and Molecular Imaging, 2018, 2018, 1-11.	0.4	14
12	Machine learning for accurate differentiation of benign and malignant breast tumors presenting as non-mass enhancement. , 2018, , .		4
13	Reproducible Evaluation of Registration Algorithms for Movement Correction in Dynamic Contrast Enhancing Magnetic Resonance Imaging for Breast Cancer Diagnosis. Lecture Notes in Computer Science, 2018, , 124-131.	1.0	0
14	Case-based statistical learning applied to SPECT image classification. , 2017, , .		2
15	Case-Based Statistical Learning: A Non Parametric Implementation Applied to SPECT Images. Lecture Notes in Computer Science, 2017, , 305-313.	1.0	0
16	A semi-supervised learning approach for model selection based on class-hypothesis testing. Expert Systems With Applications, 2017, 90, 40-49.	4.4	14
17	Case-Based Statistical Learning: A Non-Parametric Implementation With a Conditional-Error Rate SVM. IEEE Access, 2017, 5, 11468-11478.	2.6	31
18	Independent Component Analysis-Support Vector Machine-Based Computer-Aided Diagnosis System for Alzheimerâ€™s with Visual Support. International Journal of Neural Systems, 2017, 27, 1650050.	3.2	74

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19	Dynamical Graph Theory Networks Methods for the Analysis of Sparse Functional Connectivity Networks and for Determining Pinning Observability in Brain Networks. Frontiers in Computational Neuroscience, 2017, 11, 87.	1.2	10
20	Functional Brain Imaging Synthesis Based on Image Decomposition and Kernel Modeling: Application to Neurodegenerative Diseases. Frontiers in Neuroinformatics, 2017, 11, 65.	1.3	15
21	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
22	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
23	A 3D Convolutional Neural Network Approach for the Diagnosis of Parkinsonâ€™s Disease. Lecture Notes in Computer Science, 2017, , 324-333.	1.0	25
24	Automatic Separation of Parkinsonian Patients and Control Subjects Based on the Striatal Morphology. Lecture Notes in Computer Science, 2017, , 345-352.	1.0	3
25	Evaluating Alzheimerâ€™s Disease Diagnosis Using Texture Analysis. Communications in Computer and Information Science, 2017, , 470-481.	0.4	4
26	Tree-Based Ensemble Learning Techniques in the Analysis of Parkinsonian Syndromes. Communications in Computer and Information Science, 2017, , 459-469.	0.4	0
27	Simulating functional brain images in Alzheimer's disease. , 2016, , .		0
28	Statistical feature selection and classification models for Alzheimer's disease progression assessment. , 2016, , .		0
29	MRI brain segmentation using hidden Markov random fields with alpha-stable distributions. , 2016, , .		2
30	PETRA: A web-based system supporting computer aided diagnosis of alzheimer's disease. , 2016, , .		1
31	Exploratory graphical models of functional and structural connectivity patterns for Alzheimer's Disease diagnosis. Frontiers in Computational Neuroscience, 2015, 9, 132.	1.2	51
32	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.	1.2	23
33	Independent Component Analysis-Based Classification of Alzheimerâ€™s Disease from Segmented MRI Data. Lecture Notes in Computer Science, 2015, , 78-87.	1.0	6
34	A Volumetric Radial LBP Projection of MRI Brain Images for the Diagnosis of Alzheimerâ€™s Disease. Lecture Notes in Computer Science, 2015, , 19-28.	1.0	3
35	Building a FP-CIT SPECT Brain Template Using a Posterization Approach. Neuroinformatics, 2015, 13, 391-402.	1.5	31
36	Digital image analysis for automatic enumeration of malaria parasites using morphological operations. Expert Systems With Applications, 2015, 42, 3041-3047.	4.4	65

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37	Intensity normalization in the analysis of functional DaTSCAN SPECT images: The Î±-stable distribution-based normalization method vs other approaches. Neurocomputing, 2015, 150, 4-15.	3.5	13
38	Spatial component analysis of MRI data for Alzheimer's disease diagnosis: a Bayesian network approach. Frontiers in Computational Neuroscience, 2014, 8, 156.	1.2	14
39	Automatic detection of Parkinsonism using significance measures and component analysis in DaTSCAN imaging. Neurocomputing, 2014, 126, 58-70.	3.5	49
40	Early diagnosis of Alzheimerâ€™s disease based on Partial Least Squares and Support Vector Machine. Expert Systems With Applications, 2013, 40, 677-683.	4.4	39
41	Application of Empirical Mode Decomposition (EMD) on DaTSCAN SPECT images to explore Parkinson Disease. Expert Systems With Applications, 2013, 40, 2756-2766.	4.4	63
42	Functional activity maps based on significance measures and Independent Component Analysis. Computer Methods and Programs in Biomedicine, 2013, 111, 255-268.	2.6	19
43	Computer-aided diagnosis of Alzheimerâ€™s type dementia combining support vector machines and discriminant set of features. Information Sciences, 2013, 237, 59-72.	4.0	111
44	Linear intensity normalization of FP-CIT SPECT brain images using the Î±-stable distribution. NeuroImage, 2013, 65, 449-455.	2.1	45
45	Texture Features Based Detection of Parkinsonâ€™s Disease on DaTSCAN Images. Lecture Notes in Computer Science, 2013, , 266-277.	1.0	8
46	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
47	Early Computer Aided Diagnosis of Parkinsonâ€™s Disease Based on Nearest Neighbor Strategy and striatum Activation Threshold. Lecture Notes in Computer Science, 2013, , 258-265.	1.0	0
48	Automatic Orientation of Functional Brain Images for Multiplataform Software. Lecture Notes in Computer Science, 2013, , 406-411.	1.0	0
49	Automatic assistance to ParkinsonËˆs disease diagnosis in DaTSCAN SPECT imaging. Medical Physics, 2012, 39, 5971-5980.	1.6	92
50	Empirical Mode Decomposition as a feature extraction method for Alzheimer's Disease Diagnosis. , 2012, , .		1
51	FDG and PIB biomarker PET analysis for the Alzheimer's disease detection using Association Rules. , 2012, , .		10
52	Intensity normalization of FP-CIT SPECT in patients with Parkinsonism using the α-stable distribution. , 2012, , .		2
53	Improved Parkinsonism diagnosis using a partial least squares based approach. Medical Physics, 2012, 39, 4395-4403.	1.6	55
54	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

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55	Functional brain image classification using association rules defined over discriminant regions. Pattern Recognition Letters, 2012, 33, 1666-1672.	2.6	18
56	Effective diagnosis of Alzheimerâ€™s disease by means of large margin-based methodology. BMC Medical Informatics and Decision Making, 2012, 12, 79.	1.5	6
57	On the empirical mode decomposition applied to the analysis of brain SPECT images. Expert Systems With Applications, 2012, 39, 13451-13461.	4.4	17
58	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
59	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
60	Two approaches to selecting set of voxels for the diagnosis of AlzheimerÊ¼s disease using brain SPECT images. , 2011, 21, 746-755.		4
61	18F-FDG PET imaging analysis for computer aided Alzheimerâ€™s diagnosis. Information Sciences, 2011, 181, 903-916.	4.0	101
62	Computer aided diagnosis of Alzheimerâ€™s disease using component based SVM. Applied Soft Computing Journal, 2011, 11, 2376-2382.	4.1	59
63	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
64	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
65	Effective Diagnosis of Alzheimerâ€™s Disease by Means of Distance Metric Learning and Random Forest. Lecture Notes in Computer Science, 2011, , 59-67.	1.0	3
66	Feature selection using factor analysis for Alzheimer's diagnosis using PET images. Medical Physics, 2010, 37, 6084-6095.	1.6	63
67	Projecting independent components of SPECT images for computer aided diagnosis of Alzheimerâ€™s disease. Pattern Recognition Letters, 2010, 31, 1342-1347.	2.6	38
68	Machine learning for very early Alzheimer's Disease diagnosis; a ¹⁸F-FDG and PiB PET comparison. , 2010, , .		4
69	Alzheimer's disease detection in functional images using 2D Gabor wavelet analysis. Electronics Letters, 2010, 46, 556.	0.5	13
70	Improving the convergence rate in affine registration of PET brain images using histogram matching. , 2010, , .		0
71	Erratum for â€˜Alzheimer's disease detection in functional images using 2D Gabor wavelet analysisâ€™. Electronics Letters, 2010, 46, 1038.	0.5	0
72	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

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73	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
74	Classification of functional brain images using a GMM-based multi-variate approach. Neuroscience Letters, 2010, 474, 58-62.	1.0	40
75	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
76	Early Alzheimer's disease diagnosis using partial least squares and random forests. , 2010, , .		6
77	Selecting Regions of Interest in SPECT Images Using Wilcoxon Test for the Diagnosis of Alzheimerâ€™s Disease. Lecture Notes in Computer Science, 2010, , 446-451.	1.0	9
78	Effective Diagnosis of Alzheimerâ€™s Disease by Means of Association Rules. Lecture Notes in Computer Science, 2010, , 452-459.	1.0	9
79	Partial Least Squares for Feature Extraction of SPECT Images. Lecture Notes in Computer Science, 2010, , 476-483.	1.0	1
80	NMF-Based Analysis of SPECT Brain Images for the Diagnosis of Alzheimerâ€™s Disease. Lecture Notes in Computer Science, 2010, , 468-475.	1.0	0
81	Exploring Symmetry to Assist Alzheimerâ€™s Disease Diagnosis. Lecture Notes in Computer Science, 2010, , 516-523.	1.0	1
82	Skewness as feature for the diagnosis of Alzheimer's disease using SPECT images. , 2009, , .		3
83	Computer aided diagnosis of the Alzheimer's disease combining SPECT-based feature selection and random forest classifiers. , 2009, , .		13
84	Neurological image classification for the Alzheimer's Disease diagnosis using Kernel PCA and Support Vector Machines. , 2009, , .		7
85	Automatic selection of ROIs using a model-based clustering approach. , 2009, , .		2
86	fMRI data analysis using a novel clustering technique. , 2009, , .		1
87	DIELECTRIC BRANES IN NONTRIVIAL BACKGROUNDS. Modern Physics Letters A, 2009, 24, 1411-1424.	0.5	2
88	Alzheimer's diagnosis using eigenbrains and support vector machines. Electronics Letters, 2009, 45, 342.	0.5	56
89	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
90	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

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91	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
92	SPECT image classification using random forests. Electronics Letters, 2009, 45, 604.	0.5	35
93	Automatic tool for Alzheimer's disease diagnosis using PCA and Bayesian classification rules. Electronics Letters, 2009, 45, 389.	0.5	82
94	SPECT image classification based on NMSE feature correlation weighting and SVM. , 2009, , .		7
95	Multivariate approaches for Alzheimer's disease diagnosis using Bayesian classifiers. , 2009, , .		8
96	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
97	Functional Brain Image Classification Techniques for Early Alzheimer Disease Diagnosis. Lecture Notes in Computer Science, 2009, , 150-157.	1.0	5
98	Automatic System for Alzheimerâ€™s Disease Diagnosis Using Eigenbrains and Bayesian Classification Rules. Lecture Notes in Computer Science, 2009, , 949-956.	1.0	9
99	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
100	Alzheimerâ€™s Diagnosis Using Eigenbrains and Support Vector Machines. Lecture Notes in Computer Science, 2009, , 973-980.	1.0	11
101	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
102	Early Detection of the Alzheimer Disease Combining Feature Selection and Kernel Machines. Lecture Notes in Computer Science, 2009, , 410-417.	1.0	8
103	Computer Aided Diagnosis of Alzheimer Disease Using Support Vector Machines and Classification Trees. Lecture Notes in Computer Science, 2009, , 418-425.	1.0	4
104	Selecting Regions of Interest for the Diagnosis of Alzheimer Using Brain SPECT Images. Lecture Notes in Computer Science, 2009, , 399-406.	1.0	0
105	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
106	Automatic computer aided diagnosis tool using component-based SVM. , 2008, , .		32
107	On the gauge invariance and coordinate transformations of non-abelian D-brane actions. Journal of High Energy Physics, 2005, 2005, 022-022.	1.6	7
108	NESTED 3D NEURAL NETWORKS FOR KIDNEY AND TUMOR SEGMENTATION. , 0, , .		1