Amparo Alonso Betanzos

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

172 papers	3,480 citations	28 h-index	55 g-index
194 ext. papers	4,378 ext. citations	5.3 avg, IF	5.93 L-index

#	Paper	IF	Citations
172	Feature Selection: From the Past to the Future. *Learning and Analytics in Intelligent Systems*, **2022**, 11-34	0.3	0
171	Anomaly Detection on Natural Language Processing to Improve Predictions on Tourist Preferences. *Electronics (Switzerland)*, **2022**, 11, 779	2.6	1
170	Low-precision feature selection on microarray data: an information theoretic approach.. *Medical and Biological Engineering and Computing*, **2022**, 60, 1333	3.1	
169	Wavefront Marching Methods: A Unified Algorithm to Solve Eikonal and Static Hamilton-Jacobi Equations. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **2021**, 43, 4177-4188	13.3	1
168	Applying machine learning to detect early stages of cardiac remodelling and dysfunction. *European Heart Journal Cardiovascular Imaging*, **2021**, 22, 1208-1217	4.1	5
167	Scalable feature selection using ReliefF aided by locality-sensitive hashing. *International Journal of Intelligent Systems*, **2021**, 36, 6161-6179	8.4	3
166	Dealing with heterogeneity in the context of distributed feature selection for classification. *Knowledge and Information Systems*, **2021**, 63, 233-276	2.4	0
165	How important is data quality? Best classifiers vs best features. *Neurocomputing*, **2021**, 470, 365-365	5.4	0
164	Machine learning techniques to predict different levels of hospital care of CoVid-19. *Applied Intelligence*, **2021**, 1-19	4.9	1
163	Generating a Synthetic Population of Agents Through Decision Trees and Socio Demographic Data. *Lecture Notes in Computer Science*, **2021**, 128-140	0.9	
162	Feature selection with limited bit depth mutual information for portable embedded systems. *Knowledge-Based Systems*, **2020**, 197, 105885	7.3	3
161	Community detection and social network analysis based on the Italian wars of the 15th century. *Future Generation Computer Systems*, **2020**, 113, 25-40	7.5	5
160	Fast Distributed k NN Graph Construction Using Auto-tuned Locality-sensitive Hashing. *ACM Transactions on Intelligent Systems and Technology*, **2020**, 11, 1-18	8	2
159	When Size Matters: Markov Blanket with Limited Bit Depth Conditional Mutual Information. *Communications in Computer and Information Science*, **2020**, 243-255	0.3	1
158	A scalable saliency-based feature selection method with instance-level information. *Knowledge-Based Systems*, **2020**, 192, 105326	7.3	7
157	One-Class Convex Hull-Based Algorithm for Classification in Distributed Environments. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, **2020**, 50, 386-396	7.3	12
156	Performance evaluation of unsupervised techniques in cyber-attack anomaly detection. *Journal of Ambient Intelligence and Humanized Computing*, **2020**, 11, 4477-4489	3.7	14

155	Challenges and Future Trends for Microarray Analysis. *Methods in Molecular Biology*, **2019**, 1986, 283-293	1.4	5
154	Feature Selection Applied to Microarray Data. *Methods in Molecular Biology*, **2019**, 1986, 123-152	1.4	0
153	Large scale anomaly detection in mixed numerical and categorical input spaces. *Information Sciences*, **2019**, 487, 115-127	7.7	9
152	Biases in feature selection with missing data. *Neurocomputing*, **2019**, 342, 97-112	5.4	7
151	Optimizing novelty and diversity in recommendations. *Progress in Artificial Intelligence*, **2019**, 8, 101-109	4	3
150	A Review of Microarray Datasets: Where to Find Them and Specific Characteristics. *Methods in Molecular Biology*, **2019**, 1986, 65-85	1.4	7
149	A scalable decision-tree-based method to explain interactions in dyadic data. *Decision Support Systems*, **2019**, 127, 113141	5.6	5
148	Ensembles for feature selection: A review and future trends. *Information Fusion*, **2019**, 52, 1-12	16.7	153
147	Distributed classification based on distances between probability distributions in feature space. *Information Sciences*, **2019**, 496, 431-450	7.7	2
146	Distributed correlation-based feature selection in spark. *Information Sciences*, **2019**, 496, 287-299	7.7	18
145	Insights into distributed feature ranking. *Information Sciences*, **2019**, 496, 378-398	7.7	4
144	On developing an automatic threshold applied to feature selection ensembles. *Information Fusion*, **2019**, 45, 227-245	16.7	38
143	On the scalability of feature selection methods on high-dimensional data. *Knowledge and Information Systems*, **2018**, 56, 395-442	2.4	20
142	Recent Advances in Ensembles for Feature Selection. *Intelligent Systems Reference Library*, **2018**,	0.8	7
141	Emerging Challenges. *Intelligent Systems Reference Library*, **2018**, 173-205	0.8	
140	An Information Theory-Based Feature Selection Framework for Big Data Under Apache Spark. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, **2018**, 48, 1441-1453	7.3	37
139	Big-Data Analysis, Cluster Analysis, and Machine-Learning Approaches. *Advances in Experimental Medicine and Biology*, **2018**, 1065, 607-626	3.6	18
138	Foundations of Ensemble Learning. *Intelligent Systems Reference Library*, **2018**, 39-51	0.8	

137	Feature Selection. *Intelligent Systems Reference Library*, **2018**, 13-37	0.8	1
136	Software Tools. *Intelligent Systems Reference Library*, **2018**, 157-171	0.8	
135	Other Ensemble Approaches. *Intelligent Systems Reference Library*, **2018**, 115-138	0.8	
134	Applications of Ensembles Versus Traditional Approaches: Experimental Results. *Intelligent Systems Reference Library*, **2018**, 139-156	0.8	
133	Ensembles for Feature Selection. *Intelligent Systems Reference Library*, **2018**, 53-81	0.8	
132	Combination of Outputs. *Intelligent Systems Reference Library*, **2018**, 83-96	0.8	
131	Evaluation of Ensembles for Feature Selection. *Intelligent Systems Reference Library*, **2018**, 97-113	0.8	2
130	Preprocessing in High Dimensional Datasets. *Intelligent Systems Reference Library*, **2018**, 247-271	0.8	2
129	Empirically-Derived Behavioral Rules in Agent-Based Models Using Decision Trees Learned from Questionnaire Data. *Understanding Complex Systems*, **2017**, 53-76	0.4	3
128	Interactions Matter: Modelling Everyday Pro-environmental Norm Transmission and Diffusion in Workplace Networks. *Understanding Complex Systems*, **2017**, 27-52	0.4	
127	Testing Different Ensemble Configurations for Feature Selection. *Neural Processing Letters*, **2017**, 46, 857-880	2.4	25
126	Ensemble feature selection: Homogeneous and heterogeneous approaches. *Knowledge-Based Systems*, **2017**, 118, 124-139	7.3	113
125	On the use of different base classifiers in multiclass problems. *Progress in Artificial Intelligence*, **2017**, 6, 315-323	4	3
124	On the use of feature selection to improve the detection of sea oil spills in SAR images. *Computers and Geosciences*, **2017**, 100, 166-178	4.5	28
123	Volume, variety and velocity in Data Science. *Knowledge-Based Systems*, **2017**, 117, 1-2	7.3	4
122	Can classification performance be predicted by complexity measures? A study using microarray data. *Knowledge and Information Systems*, **2017**, 51, 1067-1090	2.4	26
121	Medical Expert Systems **2017**, 1-15		1
120	Exploring the consequences of distributed feature selection in DNA microarray data **2017**,		8

119	Paving the way for providing teaching feedback in automatic evaluation of open response assignments **2017**,		1
118	Testing Scenarios to Achieve Workplace Sustainability Goals Using Backcasting and Agent-Based Modeling. *Environment and Behavior*, **2017**, 49, 1007-1037	5.6	6
117	Content-based methods in peer assessment of open-response questions to grade students as authors and as graders. *Knowledge-Based Systems*, **2017**, 117, 79-87	7.3	6
116	Centralized vs. distributed feature selection methods based on data complexity measures. *Knowledge-Based Systems*, **2017**, 117, 27-45	7.3	36
115	Fast-mRMR: Fast Minimum Redundancy Maximum Relevance Algorithm for High-Dimensional Big Data. *International Journal of Intelligent Systems*, **2017**, 32, 134-152	8.4	76
114	A comparison of performance of K-complex classification methods using feature selection. *Information Sciences*, **2016**, 328, 1-14	7.7	27
113	A unified pipeline for online feature selection and classification. *Expert Systems With Applications*, **2016**, 55, 532-545	7.8	11
112	Selection of the Best Base Classifier in One-Versus-One Using Data Complexity Measures. *Lecture Notes in Computer Science*, **2016**, 110-120	0.9	1
111	Using Data Complexity Measures for Thresholding in Feature Selection Rankers. *Lecture Notes in Computer Science*, **2016**, 121-131	0.9	7
110	Feature selection for high-dimensional data. *Progress in Artificial Intelligence*, **2016**, 5, 65-75	4	60
109	Multithreaded and Spark parallelization of feature selection filters. *Journal of Computational Science*, **2016**, 17, 609-619	3.4	26
108	Fault detection via recurrence time statistics and one-class classification. *Pattern Recognition Letters*, **2016**, 84, 8-14	4.7	13
107	Data discretization: taxonomy and big data challenge. *Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery*, **2016**, 6, 5-21	6.9	71
106	An Agent-Based Model for Simulating Environmental Behavior in an Educational Organization. *Neural Processing Letters*, **2015**, 42, 89-118	2.4	12
105	Stream change detection via passive-aggressive classification and Bernoulli CUSUM. *Information Sciences*, **2015**, 305, 130-145	7.7	6
104	A factorization approach to evaluate open-response assignments in MOOCs using preference learning on peer assessments. *Knowledge-Based Systems*, **2015**, 85, 322-328	7.3	18
103	A Distributed Feature Selection Approach Based on a Complexity Measure. *Lecture Notes in Computer Science*, **2015**, 15-28	0.9	7
102	Feature Selection for High-Dimensional Data. *The Artificial Intelligence: Foundationsory, and Algorithms*, **2015**,	43	76

101	Foundations of Feature Selection. *The Artificial Intelligence: Foundationsory, and Algorithms*, **2015**, 13-28	43	5
100	Feature Selection in DNA Microarray Classification. *The Artificial Intelligence: Foundationsory, and Algorithms*, **2015**, 61-94	43	4
99	A Critical Review of Feature Selection Methods. *The Artificial Intelligence: Foundationsory, and Algorithms*, **2015**, 29-60	43	2
98	Dealing with inter-expert variability in retinopathy of prematurity: A machine learning approach. *Computer Methods and Programs in Biomedicine*, **2015**, 122, 1-15	6.9	28
97	Ensemble Feature Selection for Rankings of Features. *Lecture Notes in Computer Science*, **2015**, 29-42	0.9	8
96	An insight on complexity measures and classification in microarray data **2015**,		5
95	Exploring Guidelines for Classification of Major Heart Failure Subtypes by Using Machine Learning. *Clinical Medicine Insights: Cardiology*, **2015**, 9, 57-71	3.2	15
94	Recent advances and emerging challenges of feature selection in the context of big data. *Knowledge-Based Systems*, **2015**, 86, 33-45	7.3	158
93	A Time Efficient Approach for Distributed Feature Selection Partitioning by Features. *Lecture Notes in Computer Science*, **2015**, 245-254	0.9	4
92	Distributed Entropy Minimization Discretizer for Big Data Analysis under Apache Spark **2015**,		15
91	Real-Time Tear Film Classification Through Cost-Based Feature Selection. *Lecture Notes in Computer Science*, **2015**, 78-98	0.9	2
90	Distributed feature selection: An application to microarray data classification. *Applied Soft Computing Journal*, **2015**, 30, 136-150	7.5	116
89	Designing Decision Trees for Representing Sustainable Behaviours in Agents. *Advances in Intelligent Systems and Computing*, **2015**, 169-176	0.4	1
88	Emerging Challenges. *The Artificial Intelligence: Foundationsory, and Algorithms*, **2015**, 125-132	43	3
87	A framework for cost-based feature selection. *Pattern Recognition*, **2014**, 47, 2481-2489	7.7	48
86	A methodology for improving tear film lipid layer classification. *IEEE Journal of Biomedical and Health Informatics*, **2014**, 18, 1485-93	7.2	21
85	Data classification using an ensemble of filters. *Neurocomputing*, **2014**, 135, 13-20	5.4	57
84	A review of microarray datasets and applied feature selection methods. *Information Sciences*, **2014**, 282, 111-135	7.7	352

83	A review of feature selection methods on synthetic data. *Knowledge and Information Systems*, **2013**, 34, 483-519	2.4	381
82	Toward the scalability of neural networks through feature selection. *Expert Systems With Applications*, **2013**, 40, 2807-2816	7.8	9
81	A minimum volume covering approach with a set of ellipsoids. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **2013**, 35, 2997-3009	13.3	4
80	Automatic bearing fault diagnosis based on one-class ESVM. *Computers and Industrial Engineering*, **2013**, 64, 357-365	6.4	106
79	Up-to-Date Feature Selection Methods for Scalable and Efficient Machine Learning **2013**, 1-26		3
78	A Decision-Making Model for Environmental Behavior in Agent-Based Modeling. *Lecture Notes in Computer Science*, **2013**, 152-160	0.9	1
77	Exact Incremental Learning for a Single Non-linear Neuron Based on Taylor Expansion and Greville Formula. *Lecture Notes in Computer Science*, **2013**, 149-158	0.9	1
76	An ensemble of filters and classifiers for microarray data classification. *Pattern Recognition*, **2012**, 45, 531-539	7.7	117
75	Nonlinear single layer neural network training algorithm for incremental, nonstationary and distributed learning scenarios. *Pattern Recognition*, **2012**, 45, 4536-4546	7.7	14
74	Information Theoretic Learning and local modeling for binary and multiclass classification. *Progress in Artificial Intelligence*, **2012**, 1, 315-328	4	2
73	Interferential Tear Film Lipid Layer Classification: An Automatic Dry Eye Test **2012**,		2
72	An Agent-Based Prototype for Enhancing Sustainability Behavior at an Academic Environment. *Advances in Intelligent and Soft Computing*, **2012**, 257-264		1
71	Power wind mill fault detection via one-class ESVM vibration signal analysis **2011**,		9
70	A study of performance on microarray data sets for a classifier based on information theoretic learning. *Neural Networks*, **2011**, 24, 888-96	9.1	10
69	Feature selection and classification in multiple class datasets: An application to KDD Cup 99 dataset. *Expert Systems With Applications*, **2011**, 38, 5947-5957	7.8	117
68	Efficiency of local models ensembles for time series prediction. *Expert Systems With Applications*, **2011**, 38, 6884-6894	7.8	16
67	Toward an ensemble of filters for classification **2011**,		1
66	Reducing dimensionality in a database of sleep EEG arousals. *Expert Systems With Applications*, **2011**, 38, 7746-7754	7.8	17

65	Combining functional networks and sensitivity analysis as wrapper method for feature selection. *Expert Systems With Applications*, **2011**, 38, 12930-12938	7.8	1
64	A robust incremental learning method for non-stationary environments. *Neurocomputing*, **2011**, 74, 1800-1808	5.4	29
63	On the behavior of feature selection methods dealing with noise and relevance over synthetic scenarios **2011**,		3
62	Scalability Analysis of ANN Training Algorithms with Feature Selection. *Lecture Notes in Computer Science*, **2011**, 84-93	0.9	3
61	Local Modeling Classifier for Microarray Gene-Expression Data. *Lecture Notes in Computer Science*, **2010**, 11-20	0.9	1
60	Multiclass classifiers vs multiple binary classifiers using filters for feature selection **2010**,		4
59	On the effectiveness of discretization on gene selection of microarray data **2010**,		15
58	A new convex objective function for the supervised learning of single-layer neural networks. *Pattern Recognition*, **2010**, 43, 1984-1992	7.7	29
57	Fault Prognosis of Mechanical Components Using On-Line Learning Neural Networks. *Lecture Notes in Computer Science*, **2010**, 60-66	0.9	5
56	A Log Analyzer Agent for Intrusion Detection in a Multi-Agent System. *Lecture Notes in Computer Science*, **2010**, 168-177	0.9	1
55	A Snort-based agent for a JADE multi-agent intrusion detection system. *International Journal of Intelligent Information and Database Systems*, **2009**, 3, 107	0.3	6
54	Conversion methods for symbolic features: A comparison applied to an intrusion detection problem. *Expert Systems With Applications*, **2009**, 36, 10612-10617	7.8	28
53	A Wrapper Method for Feature Selection in Multiple Classes Datasets. *Lecture Notes in Computer Science*, **2009**, 456-463	0.9	8
52	A combination of discretization and filter methods for improving classification performance in KDD Cup 99 dataset **2009**,		12
51	**2009**,		4
50	Combining Feature Selection and Local Modelling in the KDD Cup 99 Dataset. *Lecture Notes in Computer Science*, **2009**, 824-833	0.9	4
49	A JADE-Based Framework for Developing Evolutionary Multi-Agent Systems. *Advances in Intelligent and Soft Computing*, **2009**, 339-348		
48	Multispectral classification of grass weeds and wheat (Triticum durum) using linear and nonparametric functional discriminant analysis and neural networks. *Weed Research*, **2008**, 48, 28-37	1.9	37

47	Functional network topology learning and sensitivity analysis based on ANOVA decomposition. *Neural Computation*, **2007**, 19, 231-57	2.9	9
46	Filter Methods for Feature Selection A Comparative Study **2007**, 178-187		89
45	A Comparative Study of Local Classifiers Based on Clustering Techniques and One-Layer Neural Networks **2007**, 168-177		
44	A Misuse Detection Agent for Intrusion Detection in a Multi-agent Architecture. *Lecture Notes in Computer Science*, **2007**, 466-475	0.9	4
43	An Improved Version of the Wrapper Feature Selection Method Based on Functional Decomposition. *Lecture Notes in Computer Science*, **2007**, 240-249	0.9	1
42	Feature Selection Based on Sensitivity Analysis. *Lecture Notes in Computer Science*, **2007**, 239-248	0.9	4
41	A Fast Classification Algorithm Based on Local Models. *Lecture Notes in Computer Science*, **2006**, 249-256	0.9	
40	Functional Networks and Analysis of Variance for Feature Selection. *Lecture Notes in Computer Science*, **2006**, 1031-1038	0.9	3
39	Linear-least-squares initialization of multilayer perceptrons through backpropagation of the desired response. *IEEE Transactions on Neural Networks*, **2005**, 16, 325-337		38
38	Modelling Engineering Problems Using Dimensional Analysis for Feature Extraction. *Lecture Notes in Computer Science*, **2005**, 949-954	0.9	
37	A new method for sleep apnea classification using wavelets and feedforward neural networks. *Artificial Intelligence in Medicine*, **2005**, 34, 65-76	7.4	61
36	A measure of fault tolerance for functional networks. *Neurocomputing*, **2004**, 62, 327-347	5.4	8
35	An intelligent system for forest fire risk prediction and fire fighting management in Galicia. *Expert Systems With Applications*, **2003**, 25, 545-554	7.8	68
34	Linear Least-Squares Based Methods for Neural Networks Learning. *Lecture Notes in Computer Science*, **2003**, 84-91	0.9	8
33	A Bayesian Neural Network Approach for Sleep Apnea Classification. *Lecture Notes in Computer Science*, **2003**, 284-293	0.9	0
32	Recovering Missing Data with Functional and Bayesian Networks. *Lecture Notes in Computer Science* , **2003**, 489-496	0.9	1
31	A new learning method for single layer neural networks based on a regularized cost function. *Lecture Notes in Computer Science*, **2003**, 270-277	0.9	1
30	Empirical evaluation of a hybrid intelligent monitoring system using different measures of effectiveness. *Artificial Intelligence in Medicine*, **2002**, 24, 71-96	7.4	13

29	Intelligent analysis and pattern recognition in cardiotocographic signals using a tightly coupled hybrid system. *Artificial Intelligence*, **2002**, 136, 1-27	3.6	40
28	A global optimum approach for one-layer neural networks. *Neural Computation*, **2002**, 14, 1429-49	2.9	44
27	Symbolic, Neural and Neuro-fuzzy Approaches to Pattern Recognition in Cardiotocograms. *International Series in Intelligent Technologies*, **2002**, 489-500		3
26	Local Modeling Using Self-Organizing Maps and Single Layer Neural Networks. *Lecture Notes in Computer Science*, **2002**, 945-950	0.9	2
25	Adaptive pattern recognition in the analysis of cardiotocographic records. *IEEE Transactions on Neural Networks*, **2001**, 12, 1188-95		13
24	An Auto-learning System for the Classification of Fetal Heart Rate Decelerative Patterns. *Lecture Notes in Computer Science*, **2001**, 393-400	0.9	
23	A Measure of Noise Immunity for Functional Networks. *Lecture Notes in Computer Science*, **2001**, 293-300	0.9	1
22	Analysis and evaluation of hard and fuzzy clustering segmentation techniques in burned patient images. *Image and Vision Computing*, **2000**, 18, 1045-1054	3.7	19
21	Applying statistical, uncertainty-based and connectionist approaches to the prediction of fetal outcome: a comparative study. *Artificial Intelligence in Medicine*, **1999**, 17, 37-57	7.4	6
20	EECB: a knowledge elicitation tool based on repertory grid and city block metric. *Expert Systems With Applications*, **1998**, 14, 249-258	7.8	2
19	A hybrid intelligent system for the pre-processing of Fetal Heart rate signals in antenatal testing. *Lecture Notes in Computer Science*, **1997**, 628-633	0.9	2
18	A comparative analysis of the neonatal prognosis problem using artificial neural networks, statistical techniques and certainty management techniques. *Lecture Notes in Computer Science*, **1997**, 995-1004	0.9	
17	. *IEEE Computer Applications in Power*, **1997**, 10, 36-41		3
16	Information analysis and validation of intelligent monitoring systems in intensive care units. *IEEE Transactions on Information Technology in Biomedicine*, **1997**, 1, 87-99		17
15	The NST-EXPERT project: the need to evolve. *Artificial Intelligence in Medicine*, **1995**, 7, 297-313	7.4	25
14	Automated analog-to-digital conversion of graphical cardiotocographic records. *Journal of Clinical Engineering*, **1995**, 20, 57-65	0.4	1
13	. *IEEE Engineering in Medicine and Biology Magazine*, **1993**, 12, 59-68		11
12	PATRICIA: An expert system that incorporates a patient-oriented approach for the management of ICU patients **1992**,		2

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11	A connectionist approach to predict antenatal outcome **1992**,		2
10	Foetos: an expert system for fetal assessment. *IEEE Transactions on Biomedical Engineering*, **1991**, 38, 199-211	5	10
9	Uncertainty based approach for symbolic classification of numeric variables in intensive care units. *Journal of Clinical Engineering*, **1990**, 15, 361-9	0.4	6
8	An Approach to Intensive Care Monitoring That Combines Deterministic And Heuristic Techniques. *Journal of Clinical Engineering*, **1990**, 15, 35-44	0.4	6
7	FOETOS in clinical practice: A retrospective analysis of its performance. *Artificial Intelligence in Medicine*, **1989**, 1, 93-99	7.4	8
6	ESTER: an expert system for management of respiratory weaning therapy. *IEEE Transactions on Biomedical Engineering*, **1989**, 36, 559-64	5	27
5	Automatic unit for monitoring and diagnosis with the contraction stress test. *Medical and Biological Engineering and Computing*, **1988**, 26, 410-5	3.1	3
4	Accurate initialization of neural network weights by backpropagation of the desired response		3
3	A tool for agent communication in Mozart/Oz		1
2			3
1	Intelligent Monitoring and Symbolic Representation of Clinical Knowledge: An Application in Acute Ventilatory Management39-39-7		2