

# Alfredo Vellido Alcacena

## List of Publications by Year in descending order

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Version: 2024-02-01

77  
papers

1,248  
citations

361296

20  
h-index

414303

32  
g-index

83  
all docs

83  
docs citations

83  
times ranked

1175  
citing authors

#	ARTICLE	IF	CITATIONS
1	Extraction of artefactual MRS patterns from a large database using non-negative matrix factorization. NMR in Biomedicine, 2022, 35, e4193.	1.6	6
2	A self-organizing world: special issue of the 13th edition of the workshop on self-organizing maps and learning vector quantization, clustering and data visualization, WSOM+2019. Neural Computing and Applications, 2022, 34, 1-3.	3.2	4
3	Visual Mining of Industrial Gas Turbines Sensor Data as an Industry 4.0 Application. Advances in Intelligent Systems and Computing, 2022, , 101-111.	0.5	0
4	The Need for Interpretable and Explainable Deep Learning in Medicine and Healthcare. , 2022, , 247-264.		1
5	Artificial Intelligence in Critical Care. , 2022, , 1469-1477.		0
6	A Deep Learning-Based Method for Uncovering GPCR Ligand-Induced Conformational States Using Interpretability Techniques. Lecture Notes in Computer Science, 2022, , 275-287.	1.0	1
7	Machine Learning for Clinical Decision-Making: Challenges and Opportunities in Cardiovascular Imaging. Frontiers in Cardiovascular Medicine, 2021, 8, 765693.	1.1	26
8	The importance of interpretability and visualization in machine learning for applications in medicine and health care. Neural Computing and Applications, 2020, 32, 18069-18083.	3.2	262
9	Unraveling response to temozolomide in preclinical GL261 glioblastoma with MRI/MRSI using radiomics and signal source extraction. Scientific Reports, 2020, 10, 19699.	1.6	7
10	Interpreting response to TMZ therapy in murine GL261 glioblastoma by combining Radiomics, Convex-NMF and feature selection in MRI/MRSI data analysis. , 2020, , .		0
11	Leveraging Data Science for a Personalized Haemodialysis. Kidney Diseases (Basel, Switzerland), 2020, 6, 385-394.	1.2	7
12	Artificial Intelligence and Dialysis. Kidney Diseases (Basel, Switzerland), 2019, 5, 1-2.	1.2	2
13	Blood Pressure Assessment with Differential Pulse Transit Time and Deep Learning: A Proof of Concept. Kidney Diseases (Basel, Switzerland), 2019, 5, 23-27.	1.2	18
14	Societal Issues Concerning the Application of Artificial Intelligence in Medicine. Kidney Diseases (Basel, Switzerland), 2019, 5, 11-17.	1.2	66
15	Systematic Analysis of Primary Sequence Domain Segments for the Discrimination Between Class C GPCR Subtypes. Interdisciplinary Sciences, Computational Life Sciences, 2018, 10, 43-52.	2.2	7
16	Artificial Intelligence for the Artificial Kidney: Pointers to the Future of a Personalized Hemodialysis Therapy. Kidney Diseases (Basel, Switzerland), 2018, 4, 1-9.	1.2	24
17	Machine learning in critical care: state-of-the-art and a sepsis case study. BioMedical Engineering OnLine, 2018, 17, 135.	1.3	33
18	Feature selection for the accurate prediction of septic and cardiogenic shock ICU mortality in the acute phase. PLoS ONE, 2018, 13, e0199089.	1.1	21

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19	Using machine learning tools for protein database biocuration assistance. Scientific Reports, 2018, 8, 10148.	1.6	5
20	Machine Learning for Critical Care: An Overview and a Sepsis Case Study. Lecture Notes in Computer Science, 2017, , 15-30.	1.0	1
21	Intelligent data analysis approaches to churn as a business problem: a survey. Knowledge and Information Systems, 2017, 51, 719-774.	2.1	42
22	Using random forests for assistance in the curation of G-protein coupled receptor databases. BioMedical Engineering OnLine, 2017, 16, 75.	1.3	6
23	Applying Conditional Independence Maps to Improve Sepsis Prognosis. , 2016, , .		5
24	Random Forests for Quality Control in G-Protein Coupled Receptor Databases. Lecture Notes in Computer Science, 2016, , 707-718.	1.0	1
25	Automated Quality Control for Proton Magnetic Resonance Spectroscopy Data Using Convex Non-negative Matrix Factorization. Lecture Notes in Computer Science, 2016, , 719-727.	1.0	4
26	Label noise in subtype discrimination of class C G protein-coupled receptors: A systematic approach to the analysis of classification errors. BMC Bioinformatics, 2015, 16, 314.	1.2	8
27	The extracellular N-terminal domain suffices to discriminate class C G Protein-Coupled Receptor subtypes from n-grams of their sequences. , 2015, , .		3
28	The influence of alignment-free sequence representations on the semi-supervised classification of class C G protein-coupled receptors. Medical and Biological Engineering and Computing, 2015, 53, 137-149.	1.6	11
29	Making nonlinear manifold learning models interpretable: The manifold grand tour. Expert Systems With Applications, 2015, 42, 8982-8988.	4.4	2
30	Visual Characterization of Misclassified Class C GPCRs through Manifold-based Machine Learning Methods. Genomics and Computational Biology, 2015, 1, 19.	0.7	3
31	Reducing the n-gram feature space of class C GPCRs to subtype-discriminating patterns. Journal of Integrative Bioinformatics, 2014, 11, 99-115.	1.0	4
32	Automated classification of brain tumours from short echo time in vivo MRS data using Gaussian Decomposition and Bayesian Neural Networks. Expert Systems With Applications, 2014, 41, 5296-5307.	4.4	18
33	Sepsis mortality prediction with the Quotient Basis Kernel. Artificial Intelligence in Medicine, 2014, 61, 45-52.	3.8	29
34	Probability Ridges and Distortion Flows: Visualizing Multivariate Time Series Using a Variational Bayesian Manifold Learning Method. Advances in Intelligent Systems and Computing, 2014, , 55-64.	0.5	1
35	Cartogram visualization for nonlinear manifold learning models. Data Mining and Knowledge Discovery, 2013, 27, 22-54.	2.4	4
36	Discriminant Convex Non-negative Matrix Factorization for the classification of human brain tumours. Pattern Recognition Letters, 2013, 34, 1734-1747.	2.6	15

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37	A Novel Semi-Supervised Methodology for Extracting Tumor Type-Specific MRS Sources in Human Brain Data. PLoS ONE, 2013, 8, e83773.	1.1	18
38	SVM-Based Classification of Class C GPCRs from Alignment-Free Physicochemical Transformations of Their Sequences. Lecture Notes in Computer Science, 2013, , 336-343.	1.0	8
39	Generative Manifold Learning for the Exploration of Partially Labeled Data. Computacion Y Sistemas, 2013, 17, 641-653.	0.2	0
40	Classifying malignant brain tumours from $^1\text{H}$ -MRS data using Breadth Ensemble Learning. , 2012, , .		1
41	Towards interpretable classifiers with blind signal separation. , 2012, , .		3
42	Non-negative matrix factorisation methods for the spectral decomposition of MRS data from human brain tumours. BMC Bioinformatics, 2012, 13, 38.	1.2	28
43	Convex Non-Negative Matrix Factorization for Brain Tumor Delimitation from MRSI Data. PLoS ONE, 2012, 7, e47824.	1.1	39
44	Severe sepsis mortality prediction with logistic regression over latent factors. Expert Systems With Applications, 2012, 39, 1937-1943.	4.4	25
45	Classification of human brain tumours from MRS data using Discrete Wavelet Transform and Bayesian Neural Networks. Expert Systems With Applications, 2012, 39, 5223-5232.	4.4	40
46	Robust discrimination of glioblastomas from metastatic brain tumors on the basis of single-voxel $^1\text{H}$ MRS. NMR in Biomedicine, 2012, 25, 819-828.	1.6	27
47	Complementing Kernel-Based Visualization of Protein Sequences with Their Phylogenetic Tree. Lecture Notes in Computer Science, 2012, , 136-149.	1.0	3
48	On the Use of Graphical Models to Study ICU Outcome Prediction in Septic Patients Treated with Statins. Lecture Notes in Computer Science, 2012, , 98-111.	1.0	3
49	Intelligent Management of Sepsis in the Intensive Care Unit. Advances in Medical Technologies and Clinical Practice Book Series, 2012, , 1-16.	0.3	0
50	Discovering Hidden Pathways in Bioinformatics. Lecture Notes in Computer Science, 2012, , 49-60.	1.0	0
51	On the use of decision trees for ICU outcome prediction in sepsis patients treated with statins. , 2011, , .		7
52	Brain Tumor Pathological Area Delimitation through Non-negative Matrix Factorization. , 2011, , .		0
53	Brain tumour classification using Gaussian decomposition and neural networks. , 2011, 2011, 5645-8.		3
54	SEMI-SUPERVISED ANALYSIS OF HUMAN BRAIN TUMOURS FROM PARTIALLY LABELED MRS INFORMATION, USING MANIFOLD LEARNING MODELS. International Journal of Neural Systems, 2011, 21, 17-29.	3.2	26

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55	A variational Bayesian approach for the robust analysis of the cortical silent period from EMC recordings of brain stroke patients. <i>Neurocomputing</i> , 2011, 74, 1301-1314.	3.5	7
56	Severe sepsis mortality prediction with relevance vector machines. , 2011, 2011, 100-3.		27
57	Spectral decomposition methods for the analysis of MRS information from human brain tumors. , 2011, , .		4
58	Binary classification of brain tumours using a Discrete Wavelet Transform and energy criteria. , 2011, , .		12
59	On the Computation of the Geodesic Distance with an Application to Dimensionality Reduction in a Neuro-Oncology Problem. <i>Lecture Notes in Computer Science</i> , 2011, , 483-490.	1.0	1
60	Comparative Diagnostic Accuracy of Linear and Nonlinear Feature Extraction Methods in a Neuro-oncology Problem. <i>Lecture Notes in Computer Science</i> , 2011, , 34-41.	1.0	0
61	Data Mining in Cancer Research [Application Notes. <i>IEEE Computational Intelligence Magazine</i> , 2010, 5, 14-18.	3.4	31
62	Feature and model selection with discriminatory visualization for diagnostic classification of brain tumors. <i>Neurocomputing</i> , 2010, 73, 622-632.	3.5	38
63	Semi-supervised geodesic Generative Topographic Mapping. <i>Pattern Recognition Letters</i> , 2010, 31, 202-209.	2.6	9
64	Diagnosis of brain tumours from magnetic resonance spectroscopy using wavelets and Neural Networks. , 2010, 2010, 6074-7.		10
65	Outlier exploration and diagnostic classification of a multi-centre 1H-MRS brain tumour database. <i>Neurocomputing</i> , 2009, 72, 3085-3097.	3.5	24
66	Variational Bayesian Generative Topographic Mapping. <i>Mathematical Modelling and Algorithms</i> , 2008, 7, 371-387.	0.5	16
67	Advances in clustering and visualization of time series using GTM through time. <i>Neural Networks</i> , 2008, 21, 904-913.	3.3	29
68	The effect of noise and sample size on an unsupervised feature selection method for manifold learning. , 2008, , .		2
69	A variational formulation for GTM through time. , 2008, , .		5
70	On the benefits for model regularization of a variational formulation of GTM. , 2008, , .		2
71	Determination of feature relevance for the grouping of motor unit action potentials through a generative mixture model. <i>Biomedical Signal Processing and Control</i> , 2007, 2, 111-121.	3.5	5
72	Handling outliers in brain tumour MRS data analysis through robust topographic mapping. <i>Computers in Biology and Medicine</i> , 2006, 36, 1049-1063.	3.9	23

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73	Missing data imputation through GTM as a mixture of $t$ -distributions. Neural Networks, 2006, 19, 1624-1635.	3.3	37
74	Robust analysis of MRS brain tumour data using $t$ -GTM. Neurocomputing, 2006, 69, 754-768.	3.5	24
75	Quantitative Characterization and Prediction of On-Line Purchasing Behavior: A Latent Variable Approach. International Journal of Electronic Commerce, 2000, 4, 83-104.	1.4	57
76	A systematic quantitative methodology for characterizing the business-to-consumer e-commerce market. ACM SIGBIO Newsletter, 2000, 20, 24.	0.1	2
77	Kernel Generative Topographic Mapping of Protein Sequences. , 0, , 817-830.		0