Willem Waegeman

List of Publications by Year
in descending order

89 papers	3,077 citations	236925 25 h-index	182427 51 g-index
98 all docs	98 docs citations	98 times ranked	4237 citing authors

#	Article	IF	Citations
1	Valid prediction intervals for regression problems. Artificial Intelligence Review, 2023, 56, 577-613.	15.7	6
2	Novel Transformer Networks for Improved Sequence Labeling in genomics. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2022, 19, 97-106.	3.0	15
3	Heterogeneity hampers the identification of general pressure injury risk factors in intensive care populations: A predictive modelling analysis. Intensive and Critical Care Nursing, 2022, 68, 103117.	2.9	17
4	CpG Transformer for imputation of single-cell methylomes. Bioinformatics, 2022, 38, 597-603.	4.1	17
5	Multi-target prediction for dummies using two-branch neural networks. Machine Learning, 2022, 111, 651-684.	5.4	5
6	High-Resolution Surveying With Small-Loop Frequency Domain Electromagnetic Systems: Efficient Survey Design and Adaptive Processing. IEEE Geoscience and Remote Sensing Magazine, 2021, 9, 167-183.	9.6	6
7	Cytometric fingerprints of gut microbiota predict Crohnâ€™s disease state. ISME Journal, 2021, 15, 354-358.	9.8	19
8	PhenoGMM: Gaussian Mixture Modeling of Cytometry Data Quantifies Changes in Microbial Community Structure. MSphere, 2021, 6, .	2.9	21
9	Aleatoric and epistemic uncertainty in machine learning: an introduction to concepts and methods. Machine Learning, 2021, 110, 457-506.	5.4	487
10	Ambient temperature and relative humidityâ€“based drift correction in frequency domain electromagnetics using machine learning. Near Surface Geophysics, 2021, 19, 541-556.	1.2	5
11	Explainability in transformer models for functional genomics. Briefings in Bioinformatics, 2021, 22, .	6.5	19
12	Efficient set-valued prediction in multi-class classification. Data Mining and Knowledge Discovery, 2021, 35, 1435-1469.	3.7	12
13	Pressure injury prediction models for critically-ill patients should consider both the case-mix and local factors. Intensive and Critical Care Nursing, 2021, 65, 103033.	2.9	13
14	Predicting the Presence and Abundance of Bacterial Taxa in Environmental Communities through Flow Cytometric Fingerprinting. MSystems, 2021, 6, e0055121.	3.8	9
15	Improving the performance of machine learning models for biotechnology: The quest for deus ex machina. Biotechnology Advances, 2021, 53, 107858.	11.7	7
16	Bacterial species identification using MALDI-TOF mass spectrometry and machine learning techniques: A large-scale benchmarking study. Computational and Structural Biotechnology Journal, 2021, 19, 6157-6168.	4.1	20
17	Discriminating Bacterial Phenotypes at the Population and Singleâ€Cell Level: A Comparison of Flow Cytometry and Raman Spectroscopy Fingerprinting. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2020, 97, 713-726.	1.5	16
18	Predictive design of sigma factor-specific promoters. Nature Communications, 2020, 11, 5822.	12.8	31

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19	Using structured pathology data to predict hospital-wide mortality at admission. PLoS ONE, 2020, 15, e0235117.	2.5	6
20	Fast Pathogen Identification Using Single-Cell Matrix-Assisted Laser Desorption/Ionization-Aerosol Time-of-Flight Mass Spectrometry Data and Deep Learning Methods. Analytical Chemistry, 2020, 92, 7523-7531.	6.5	30
21	Using structured pathology data to predict hospital-wide mortality at admission. , 2020, 15, e0235117.		0
22	Using structured pathology data to predict hospital-wide mortality at admission. , 2020, 15, e0235117.		0
23	Using structured pathology data to predict hospital-wide mortality at admission. , 2020, 15, e0235117.		0
24	Using structured pathology data to predict hospital-wide mortality at admission. , 2020, 15, e0235117.		0
25	A protocol for automated timber species identification using metabolome profiling. Wood Science and Technology, 2019, 53, 953-965.	3.2	27
26	Learning Singleâ€€Cell Distances from Cytometry Data. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2019, 95, 782-791.	1.5	4
27	Coculturing Bacteria Leads to Reduced Phenotypic Heterogeneities. Applied and Environmental Microbiology, 2019, 85, .	3.1	37
28	A hospital wide predictive model for unplanned readmission using hierarchical ICD data. Computer Methods and Programs in Biomedicine, 2019, 173, 177-183.	4.7	18
29	DeepRibo: a neural network for precise gene annotation of prokaryotes by combining ribosome profiling signal and binding site patterns. Nucleic Acids Research, 2019, 47, e36-e36.	14.5	58
30	Multi-target prediction: a unifying view on problems and methods. Data Mining and Knowledge Discovery, 2019, 33, 293-324.	3.7	55
31	Randomized Lasso Links Microbial Taxa with Aquatic Functional Groups Inferred from Flow Cytometry. MSystems, 2019, 4, .	3.8	14
32	Global hydro-climatic biomes identified via multitask learning. Geoscientific Model Development, 2018, 11, 4139-4153.	3.6	14
33	Terrestrial evaporation response to modes of climate variability. Npj Climate and Atmospheric Science, 2018, 1, .	6.8	49
34	Algebraic shortcuts for leave-one-out cross-validation in supervised network inference. Briefings in Bioinformatics, 2018, , .	6.5	8
35	Label-free Raman characterization of bacteria calls for standardized procedures. Journal of Microbiological Methods, 2018, 151, 69-75.	1.6	38
36	Detection of microbial disturbances in a drinking water microbial community through continuous acquisition and advanced analysis of flow cytometry data. Water Research, 2018, 145, 73-82.	11.3	29

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37	A Comparative Study of Pairwise Learning Methods Based on Kernel Ridge Regression. Neural Computation, 2018, 30, 2245-2283.	2.2	19
38	Effects of chlorhexidine gluconate oral care on hospital mortality: a hospital-wide, observational cohort study. Intensive Care Medicine, 2018, 44, 1017-1026.	8.2	102
39	Interpretation and visualisation of data from dairy herds. In Practice, 2018, 40, 195-203.	0.2	5
40	Novel approaches to assess the quality of fertility data stored in dairy herd management software. Journal of Dairy Science, 2017, 100, 4078-4089.	3.4	9
41	Linear filtering reveals false negatives in species interaction data. Scientific Reports, 2017, 7, 45908.	3.3	18
42	Stripping flow cytometry: How many detectors do we need for bacterial identification?. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2017, 91, 1184-1191.	1.5	17
43	Potentials and Limitations of Existing Forecasting Models for Alternaria on Potatoes: Challenges for Model Improvement. Potato Research, 2017, 60, 61-76.	2.7	6
44	Absolute quantification of microbial taxon abundances. ISME Journal, 2017, 11, 584-587.	9.8	273
45	A non-linear data-driven approach to reveal global vegetation sensitivity to climate. , 2017, , .		2
46	A non-linear Granger-causality framework to investigate climateâ€“vegetation dynamics. Geoscientific Model Development, 2017, 10, 1945-1960.	3.6	110
47	Flow Cytometric Single-Cell Identification of Populations in Synthetic Bacterial Communities. PLoS ONE, 2017, 12, e0169754.	2.5	31
48	miSTAR: miRNA target prediction through modeling quantitative and qualitative miRNA binding site information in a stacked model structure. Nucleic Acids Research, 2016, 45, gkw1260.	14.5	18
49	Exact and efficient top-K inference for multi-target prediction by querying separable linear relational models. Data Mining and Knowledge Discovery, 2016, 30, 1370-1394.	3.7	1
50	Data-driven recipe completion using machine learning methods. Trends in Food Science and Technology, 2016, 49, 1-13.	15.1	18
51	Consistency of Probabilistic Classifier Trees. Lecture Notes in Computer Science, 2016, , 511-526.	1.3	7
52	Prediction of subacute ruminal acidosis based on milk fatty acids: A comparison of linear discriminant and support vector machine approaches for model development. Computers and Electronics in Agriculture, 2015, 111, 179-185.	7.7	19
53	Identification of Functionally Related Enzymes by Learning-to-Rank Methods. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2014, 11, 1157-1169.	3.0	4
54	Predicting spatio-temporal Culicoides imicola distributions in Spain based on environmental habitat characteristics and species dispersal. Ecological Informatics, 2014, 22, 69-80.	5.2	7

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55	A Two-Step Learning Approach for Solving Full and Almost Full Cold Start Problems in Dyadic Prediction. Lecture Notes in Computer Science, 2014, , 517-532.	1.3	12
56	Efficient regularized least-squares algorithms for conditional ranking on relational data. Machine Learning, 2013, 93, 321-356.	5.4	27
57	A field-specific web tool for the prediction of Fusarium head blight and deoxynivalenol content in Belgium. Computers and Electronics in Agriculture, 2013, 93, 140-148.	7.7	27
58	Erratum to â€œThe logistic curve as a tool to describe the daily ruminal pH pattern and its link with milk fatty acidsâ€•(J. Dairy Sci. 95:5845â€“5865). Journal of Dairy Science, 2013, 96, 1323.	3.4	0
59	Combined exposure to cyanobacteria and carbaryl results in antagonistic effects on the reproduction of daphnia pulex. Environmental Toxicology and Chemistry, 2013, 32, 2153-2158.	4.3	14
60	Exploration and prediction of interactions between methanotrophs and heterotrophs. Research in Microbiology, 2013, 164, 1045-1054.	2.1	57
61	Habitat prediction and knowledge extraction for spawning European grayling (Thymallus thymallus) Tj ETQq1 1 0.784314 rgBT /Overl 47, 1-6.	4.5	111
62	Influence of maizeâ€“wheat rotation systems on Fusarium head blight infection and deoxynivalenol content in wheat under low versus high disease pressure. Crop Protection, 2013, 52, 14-21.	2.1	36
63	Ordinal regression models for predicting deoxynivalenol in winter wheat. Plant Pathology, 2013, 62, 1319-1329.	2.4	22
64	A Kernel-Based Framework for Learning Graded Relations From Data. IEEE Transactions on Fuzzy Systems, 2012, 20, 1090-1101.	9.8	16
65	The logistic curve as a tool to describe the daily ruminal pH pattern and its link with milk fatty acids. Journal of Dairy Science, 2012, 95, 5845-5865.	3.4	19
66	Toward a Reliable Evaluation of Forecasting Systems for Plant Diseases: A Case Study Using Fusarium Head Blight of Wheat. Plant Disease, 2012, 96, 889-896.	1.4	23
67	On label dependence and loss minimization in multi-label classification. Machine Learning, 2012, 88, 5-45.	5.4	215
68	Learning partial ordinal class memberships with kernel-based proportional odds models. Computational Statistics and Data Analysis, 2012, 56, 928-942.	1.2	27
69	ERA ranking representability: The missing link between ordinal regression and multi-class classification. , 2011, , .		0
70	A discussion on the accuracy-complexity relationship in modelling fish habitat preference using genetic Takagi-Sugeno fuzzy systems. , 2011, , .		1
71	Connection between primary Fusarium inoculum on gramineous weeds, crop residues and soil samples and the final population on wheat ears in Flanders, Belgium. Crop Protection, 2011, 30, 1297-1305.	2.1	48
72	Bacterial species identification from MALDI-TOF mass spectra through data analysis and machine learning. Systematic and Applied Microbiology, 2011, 34, 20-29.	2.8	181

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73	Effect of model formulation on the optimization of a genetic Takagiâ€“Sugeno fuzzy system for fish habitat suitability evaluation. Ecological Modelling, 2011, 222, 1401-1413.	2.5	52
74	Supervised learning algorithms for multi-class classification problems with partial class memberships. Fuzzy Sets and Systems, 2011, 184, 106-125.	2.7	15
75	On the ERA ranking representability of pairwise bipartite ranking functions. Artificial Intelligence, 2011, 175, 1223-1250.	5.8	10
76	An experimental comparison of cross-validation techniques for estimating the area under the ROC curve. Computational Statistics and Data Analysis, 2011, 55, 1828-1844.	1.2	116
77	From learning taxonomies to phylogenetic learning: Integration of 16S rRNA gene data into FAME-based bacterial classification. BMC Bioinformatics, 2010, 11, 69.	2.6	15
78	Learning intransitive reciprocal relations with kernel methods. European Journal of Operational Research, 2010, 206, 676-685.	5.7	28
79	A transitivity analysis of bipartite rankings in pairwise multi-class classification. Information Sciences, 2010, 180, 4099-4117.	6.9	10
80	On the role of cost-sensitive learning in multi-class brain-computer interfaces. Biomedizinische Technik, 2010, 55, 163-172.	0.8	2
81	Regret Analysis for Performance Metrics in Multi-Label Classification: The Case of Hamming and Subset Zero-One Loss. Lecture Notes in Computer Science, 2010, , 280-295.	1.3	24
82	Conditional Ranking on Relational Data. Lecture Notes in Computer Science, 2010, , 499-514.	1.3	10
83	A Survey on ROC-based Ordinal Regression. , 2010, , 127-154.		3
84	Kernel-based learning methods for preference aggregation. 4or, 2009, 7, 169-189.	1.6	22
85	Learning to rank: a ROC-based graph-theoretic approach. 4or, 2009, 7, 399-402.	1.6	1
86	ROC analysis in ordinal regression learning. Pattern Recognition Letters, 2008, 29, 1-9.	4.2	94
87	Learning layered ranking functions with structured support vector machines. Neural Networks, 2008, 21, 1511-1523.	5.9	12
88	On the scalability of ordered multi-class ROC analysis. Computational Statistics and Data Analysis, 2008, 52, 3371-3388.	1.2	26
89	Classifying carpets based on laser scanner data. Engineering Applications of Artificial Intelligence, 2008, 21, 907-918.	8.1	12