Willem Waegeman

List of Publications by Year in Descending Order

88 papers	1,832 citations	22 h-index	40 g-index
98 ext. papers	2,440 ext. citations	5.6 avg, IF	5.56 L-index

#	Paper	IF	Citations
88	Multi-target prediction for dummies using two-branch neural networks. *Machine Learning*, **2022**, 111, 651	4	0
87	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	6.8	1
86	Improving the performance of machine learning models for biotechnology: The quest for deus ex machina. *Biotechnology Advances*, **2021**, 53, 107858	17.8	0
85	Aleatoric and epistemic uncertainty in machine learning: an introduction to concepts and methods. *Machine Learning*, **2021**, 110, 457-506	4	98
84	Ambient temperature and relative humidity‐based drift correction in frequency domain electromagnetics using machine learning. *Near Surface Geophysics*, **2021**, 19, 541-556	1.6	2
83	Explainability in transformer models for functional genomics. *Briefings in Bioinformatics*, **2021**, 22,	13.4	6
82	Efficient set-valued prediction in multi-class classification. *Data Mining and Knowledge Discovery*, **2021**, 35, 1435	5.6	3
81	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	8.9	2
80	Cytometric fingerprints of gut microbiota predict Crohn's disease state. *ISME Journal*, **2021**, 15, 354-358	11.9	6
79	PhenoGMM: Gaussian Mixture Modeling of Cytometry Data Quantifies Changes in Microbial Community Structure. *MSphere*, **2021**, 6,	5	6
78	Heterogeneity hampers the identification of general pressure injury risk factors in intensive care populations: A predictive modelling analysis. *Intensive and Critical Care Nursing*, **2021**, 103117	3.1	2
77	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	3.1	4
76	Predicting the Presence and Abundance of Bacterial Taxa in Environmental Communities through Flow Cytometric Fingerprinting. *MSystems*, **2021**, 6, e0055121	7.6	1
75	Using structured pathology data to predict hospital-wide mortality at admission. *PLoS ONE*, **2020**, 15, e0235117	3.7	4
74	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	7.8	16
73	Discriminating Bacterial Phenotypes at the Population and Single-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	4.6	9
72	Predictive design of sigma factor-specific promoters. *Nature Communications*, **2020**, 11, 5822	17.4	12

71	Novel transformer networks for improved sequence labeling in genomics. *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, **2020**, PP,	3	3
70	Using structured pathology data to predict hospital-wide mortality at admission **2020**, 15, e0235117		
69	Using structured pathology data to predict hospital-wide mortality at admission **2020**, 15, e0235117		
68	Using structured pathology data to predict hospital-wide mortality at admission **2020**, 15, e0235117		
67	Using structured pathology data to predict hospital-wide mortality at admission **2020**, 15, e0235117		
66	A protocol for automated timber species identification using metabolome profiling. *Wood Science and Technology*, **2019**, 53, 953-965	2.5	10
65	Learning Single-Cell Distances from Cytometry Data. *Cytometry Part A: the Journal of the International Society for Analytical Cytology*, **2019**, 95, 782-791	4.6	3
64	Coculturing Bacteria Leads to Reduced Phenotypic Heterogeneities. *Applied and Environmental Microbiology*, **2019**, 85,	4.8	22
63	A hospital wide predictive model for unplanned readmission using hierarchical ICD data. *Computer Methods and Programs in Biomedicine*, **2019**, 173, 177-183	6.9	13
62	Randomized Lasso Links Microbial Taxa with Aquatic Functional Groups Inferred from Flow Cytometry. *MSystems*, **2019**, 4,	7.6	10
61	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	20.1	30
60	Multi-target prediction: a unifying view on problems and methods. *Data Mining and Knowledge Discovery*, **2019**, 33, 293-324	5.6	33
59	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	12.5	18
58	A Comparative Study of Pairwise Learning Methods Based on Kernel Ridge Regression. *Neural Computation*, **2018**, 30, 2245-2283	2.9	12
57	Effects of chlorhexidine gluconate oral care on hospital mortality: a hospital-wide, observational cohort study. *Intensive Care Medicine*, **2018**, 44, 1017-1026	14.5	57
56	Interpretation and visualisation of data from dairy herds. *In Practice*, **2018**, 40, 195-203	0.3	3
55	Global hydro-climatic biomes identified via multitask learning. *Geoscientific Model Development*, **2018**, 11, 4139-4153	6.3	10
54	Terrestrial evaporation response to modes of climate variability. *Npj Climate and Atmospheric Science*, **2018**, 1,	8	30

#	Reference		
53	Algebraic shortcuts for leave-one-out cross-validation in supervised network inference. *Briefings in Bioinformatics*, **2018**,	13.4	5
52	Label-free Raman characterization of bacteria calls for standardized procedures. *Journal of Microbiological Methods*, **2018**, 151, 69-75	2.8	24
51	Novel approaches to assess the quality of fertility data stored in dairy herd management software. *Journal of Dairy Science*, **2017**, 100, 4078-4089	4	7
50	Linear filtering reveals false negatives in species interaction data. *Scientific Reports*, **2017**, 7, 45908	4.9	13
49	A non-linear Granger-causality framework to investigate climate☐vegetation dynamics. *Geoscientific Model Development*, **2017**, 10, 1945-1960	6.3	56
48	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	4.6	10
47	Potentials and Limitations of Existing Forecasting Models for Alternaria on Potatoes: Challenges for Model Improvement. *Potato Research*, **2017**, 60, 61-76	3.2	4
46	Absolute quantification of microbial taxon abundances. *ISME Journal*, **2017**, 11, 584-587	11.9	169
45	A non-linear data-driven approach to reveal global vegetation sensitivity to climate **2017**,		2
44	Flow Cytometric Single-Cell Identification of Populations in Synthetic Bacterial Communities. *PLoS ONE*, **2017**, 12, e0169754	3.7	24
43	miSTAR: miRNA target prediction through modeling quantitative and qualitative miRNA binding site information in a stacked model structure. *Nucleic Acids Research*, **2017**, 45, e51	20.1	12
42	Data-driven recipe completion using machine learning methods. *Trends in Food Science and Technology*, **2016**, 49, 1-13	15.3	11
41	Consistency of Probabilistic Classifier Trees. *Lecture Notes in Computer Science*, **2016**, 511-526	0.9	7
40	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	5.6	1
39	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	6.5	12
38	Predicting spatio-temporal Culicoides imicola distributions in Spain based on environmental habitat characteristics and species dispersal. *Ecological Informatics*, **2014**, 22, 69-80	4.2	7
37	Identification of Functionally Related Enzymes by Learning-to-Rank Methods. *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, **2014**, 11, 1157-69	3	4
36	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	0.9	11

35	Efficient regularized least-squares algorithms for conditional ranking on relational data. *Machine Learning*, **2013**, 93, 321-356	4	24
34	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	6.5	20
33	Combined exposure to cyanobacteria and carbaryl results in antagonistic effects on the reproduction of Daphnia pulex. *Environmental Toxicology and Chemistry*, **2013**, 32, 2153-8	3.8	14
32	Exploration and prediction of interactions between methanotrophs and heterotrophs. *Research in Microbiology*, **2013**, 164, 1045-54	4	44
31	Habitat prediction and knowledge extraction for spawning European grayling (Thymallus thymallus L.) using a broad range of species distribution models. *Environmental Modelling and Software*, **2013**, 47, 1-6	5.2	91
30	Influence of maize/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	2.7	27
29	Ordinal regression models for predicting deoxynivalenol in winter wheat. *Plant Pathology*, **2013**, 62, 1319-1329	2.3	20
28	Learning partial ordinal class memberships with kernel-based proportional odds models. *Computational Statistics and Data Analysis*, **2012**, 56, 928-942	1.6	18
27	A Kernel-Based Framework for Learning Graded Relations From Data. *IEEE Transactions on Fuzzy Systems*, **2012**, 20, 1090-1101	8.3	15
26	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, 5845-65	4	15
25	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	1.5	22
24	On label dependence and loss minimization in multi-label classification. *Machine Learning*, **2012**, 88, 5-45	4	184
23	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	2.7	37
22	Bacterial species identification from MALDI-TOF mass spectra through data analysis and machine learning. *Systematic and Applied Microbiology*, **2011**, 34, 20-9	4.2	139
21	Effect of model formulation on the optimization of a genetic Takagi-Sugeno fuzzy system for fish habitat suitability evaluation. *Ecological Modelling*, **2011**, 222, 1401-1413	3	42
20	Supervised learning algorithms for multi-class classification problems with partial class memberships. *Fuzzy Sets and Systems*, **2011**, 184, 106-125	3.7	11
19	A discussion on the accuracy-complexity relationship in modelling fish habitat preference using genetic Takagi-Sugeno fuzzy systems **2011**,		1
18	On the ERA ranking representability of pairwise bipartite ranking functions. *Artificial Intelligence*, **2011**, 175, 1223-1250	3.6	7

17	An experimental comparison of cross-validation techniques for estimating the area under the ROC curve. *Computational Statistics and Data Analysis*, **2011**, 55, 1828-1844	1.6	80
16	On the role of cost-sensitive learning in multi-class brain-computer interfaces. *Biomedizinische Technik*, **2010**, 55, 163-72	1.3	2
15	From learning taxonomies to phylogenetic learning: integration of 16S rRNA gene data into FAME-based bacterial classification. *BMC Bioinformatics*, **2010**, 11, 69	3.6	15
14	Learning intransitive reciprocal relations with kernel methods. *European Journal of Operational Research*, **2010**, 206, 676-685	5.6	26
13	A transitivity analysis of bipartite rankings in pairwise multi-class classification. *Information Sciences* , **2010**, 180, 4099-4117	7.7	10
12	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	0.9	13
11	Conditional Ranking on Relational Data. *Lecture Notes in Computer Science*, **2010**, 499-514	0.9	10
10	A Survey on ROC-based Ordinal Regression **2010**, 127-154		1
9	Kernel-based learning methods for preference aggregation. *4or*, **2009**, 7, 169-189	1.4	19
8	Learning to rank: a ROC-based graph-theoretic approach. *4or*, **2009**, 7, 399-402	1.4	
7	ROC analysis in ordinal regression learning. *Pattern Recognition Letters*, **2008**, 29, 1-9	4.7	77
6	Learning layered ranking functions with structured support vector machines. *Neural Networks*, **2008**, 21, 1511-23	9.1	12
5	On the scalability of ordered multi-class ROC analysis. *Computational Statistics and Data Analysis*, **2008**, 52, 3371-3388	1.6	19
4	Classifying carpets based on laser scanner data. *Engineering Applications of Artificial Intelligence*, **2008**, 21, 907-918	7.2	9
3	PhenoGMM: Gaussian mixture modelling of microbial cytometry data enables efficient predictions of biodiversity		1
2	Novel transformer networks for improved sequence labeling in genomics		2
1	Valid prediction intervals for regression problems. *Artificial Intelligence Review*,1	9.7	0