Kate A Smith-Miles

List of Publications by Year
in descending order

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145 papers	6,205 citations	101543 36 h-index	76900 74 g-index
154 all docs	154 docs citations	154 times ranked	4640 citing authors

#	Article	IF	Citations
1	Automatic Age Estimation Based on Facial Aging Patterns. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2007, 29, 2234-2240.	13.9	780
2	Characteristic-Based Clustering for Time Series Data. Data Mining and Knowledge Discovery, 2006, 13, 335-364.	3.7	435
3	Cross-disciplinary perspectives on meta-learning for algorithm selection. ACM Computing Surveys, 2009, 41, 1-25.	23.0	343
4	On learning algorithm selection for classification. Applied Soft Computing Journal, 2006, 6, 119-138.	7.2	342
5	Neural Networks for Combinatorial Optimization: A Review of More Than a Decade of Research. INFORMS Journal on Computing, 1999, 11, 15-34.	1.7	291
6	Neural networks in business: techniques and applications for the operations researcher. Computers and Operations Research, 2000, 27, 1023-1044.	4.0	215
7	On chaotic simulated annealing. IEEE Transactions on Neural Networks, 1998, 9, 716-718.	4.2	173
8	Measuring instance difficulty for combinatorial optimization problems. Computers and Operations Research, 2012, 39, 875-889.	4.0	155
9	Rule induction for forecasting method selection: Meta-learning the characteristics of univariate time series. Neurocomputing, 2009, 72, 2581-2594.	5.9	136
10	Towards objective measures of algorithm performance across instance space. Computers and Operations Research, 2014, 45, 12-24.	4.0	130
11	Static and dynamic channel assignment using neural networks. IEEE Journal on Selected Areas in Communications, 1997, 15, 238-249.	14.0	116
12	Visualising forecasting algorithm performance using time series instance spaces. International Journal of Forecasting, 2017, 33, 345-358.	6.5	109
13	Neural techniques for combinatorial optimization with applications. IEEE Transactions on Neural Networks, 1998, 9, 1301-1318.	4.2	105
14	Web page clustering using a self-organizing map of user navigation patterns. Decision Support Systems, 2003, 35, 245-256.	5.9	103
15	A meta-learning approach to automatic kernel selection for support vector machines. Neurocomputing, 2006, 70, 173-186.	5.9	103
16	An analysis of customer retention and insurance claim patterns using data mining: a case study. Journal of the Operational Research Society, 2000, 51, 532-541.	3.4	89
17	Instance spaces for machine learning classification. Machine Learning, 2018, 107, 109-147.	5.4	87
18	A transformation technique for the clustered generalized traveling salesman problem with applications to logistics. European Journal of Operational Research, 2020, 285, 444-457.	5.7	84

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19	Experimental analysis of chaotic neural network models for combinatorial optimization under a unifying framework. Neural Networks, 2000, 13, 731-744.	5.9	81
20	Discovering the suitability of optimisation algorithms by learning from evolved instances. Annals of Mathematics and Artificial Intelligence, 2011, 61, 87-104.	1.3	79
21	A unified framework for chaotic neural-network approaches to combinatorial optimization. IEEE Transactions on Neural Networks, 1999, 10, 978-981.	4.2	76
22	Intelligent web traffic mining and analysis. Journal of Network and Computer Applications, 2005, 28, 147-165.	9.1	66
23	Predicting solutions of large-scale optimization problems via machine learning: A case study in blood supply chain management. Computers and Operations Research, 2020, 119, 104941.	4.0	65
24	Hopfield neural networks for timetabling: formulations, methods, and comparative results. Computers and Industrial Engineering, 2003, 44, 283-305.	6.3	60
25	Towards insightful algorithm selection for optimisation using meta-learning concepts. , 2008, , .		60
26	Generating new test instances by evolving in instance space. Computers and Operations Research, 2015, 63, 102-113.	4.0	57
27	Redundant association rules reduction techniques. International Journal of Business Intelligence and Data Mining, 2007, 2, 29.	0.2	55
28	Understanding TSP Difficulty by Learning from Evolved Instances. Lecture Notes in Computer Science, 2010, , 266-280.	1.3	55
29	Neural versus traditional approaches to the location of interacting hub facilities. Location Science, 1996, 4, 155-171.	0.1	52
30	Face Image Modeling by Multilinear Subspace Analysis With Missing Values. IEEE Transactions on Systems, Man, and Cybernetics, 2011, 41, 881-892.	5.0	51
31	Facial age estimation by nonlinear aging pattern subspace. , 2008, , .		49
32	Manufacturing cell formation using a new self-organizing neural network. Computers and Industrial Engineering, 2002, 42, 377-382.	6.3	47
33	Performance Analysis of Continuous Black-Box Optimization Algorithms via Footprints in Instance Space. Evolutionary Computation, 2017, 25, 529-554.	3.0	44
34	A hybrid neural approach to combinatorial optimization. Computers and Operations Research, 1996, 23, 597-610.	4.0	43
35	Traditional heuristic versus Hopfield neural network approaches to a car sequencing problem. European Journal of Operational Research, 1996, 93, 300-316.	5.7	43
36	Resilient Identity Crime Detection. IEEE Transactions on Knowledge and Data Engineering, 2012, 24, 533-546.	5.7	43

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37	Solving boundary value problems, integral, and integro-differential equations using Gegenbauer integration matrices. Journal of Computational and Applied Mathematics, 2013, 237, 307-325.	2.0	43
38	Classes of structures in the stable atmospheric boundary layer. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 2057-2069.	2.7	39
39	A cross-entropy method for optimising robotic automated storage and retrieval systems. International Journal of Production Research, 2018, 56, 6450-6472.	7.5	39
40	Stochastic optimization of two-machine flow shop robotic cells with controllable inspection times: From theory toward practice. Robotics and Computer-Integrated Manufacturing, 2020, 61, 101822.	9.9	39
41	Individual Stable Space: An Approach to Face Recognition Under Uncontrolled Conditions. IEEE Transactions on Neural Networks, 2008, 19, 1354-1368.	4.2	37
42	On normalization and algorithm selection for unsupervised outlier detection. Data Mining and Knowledge Discovery, 2020, 34, 309-354.	3.7	36
43	Anomaly Detection in Streaming Nonstationary Temporal Data. Journal of Computational and Graphical Statistics, 2020, 29, 13-27.	1.7	35
44	Mathematical modelling of stem cell differentiation: the PU.1â€“GATA-1 interaction. Journal of Mathematical Biology, 2012, 64, 449-468.	1.9	33
45	Assessing partnership savings in horizontal cooperation by planning linked deliveries. Transportation Research, Part A: Policy and Practice, 2014, 66, 268-279.	4.2	33
46	An argument for abandoning the travelling salesman problem as a neural-network benchmark. IEEE Transactions on Neural Networks, 1996, 7, 1542-1544.	4.2	32
47	Correction to "Automatic Age Estimation Based on Facial Aging Patterns". IEEE Transactions on Pattern Analysis and Machine Intelligence, 2008, 30, 368-368.	13.9	31
48	Detecting and Classifying Events in Noisy Time Series. Journals of the Atmospheric Sciences, 2014, 71, 1090-1104.	1.7	31
49	Facial age estimation by multilinear subspace analysis. , 2009, , .		29
50	Context-aware fusion: A case study on fusion of gait and face for human identification in video. Pattern Recognition, 2010, 43, 3660-3673.	8.1	28
51	Optimal Gegenbauer quadrature over arbitrary integration nodes. Journal of Computational and Applied Mathematics, 2013, 242, 82-106.	2.0	28
52	Mathematical modeling of GATA-switching for regulating the differentiation of hematopoietic stem cell. BMC Systems Biology, 2014, 8, S8.	3.0	28
53	Anomaly Detection in High-Dimensional Data. Journal of Computational and Graphical Statistics, 2021, 30, 360-374.	1.7	28
54	Generating New Space-Filling Test Instances for Continuous Black-Box Optimization. Evolutionary Computation, 2020, 28, 379-404.	3.0	27

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55	Automatic parameter selection for polynomial kernel. , 0, , .		26
56	A Knowledge Discovery Approach to Understanding Relationships between Scheduling Problem Structure and Heuristic Performance. Lecture Notes in Computer Science, 2009, , 89-103.	1.3	25
57	On the communal analysis suspicion scoring for identity crime in streaming credit applications. European Journal of Operational Research, 2009, 195, 595-612.	5.7	24
58	Generalising Algorithm Performance in Instance Space: A Timetabling Case Study. Lecture Notes in Computer Science, 2011, , 524-538.	1.3	21
59	Self-organizing circuitry and emergent computation in mouse embryonic stem cells. Stem Cell Research, 2012, 8, 324-333.	0.7	21
60	Approximate Bayesian computation schemes for parameter inference of discrete stochastic models using simulated likelihood density. BMC Bioinformatics, 2014, 15, S3.	2.6	21
61	Scheduling of two-machine robotic rework cells: In-process, post-process and in-line inspection scenarios. Robotics and Autonomous Systems, 2017, 91, 210-225.	5.1	21
62	A Noisy Self-Organizing Neural Network With Bifurcation Dynamics for Combinatorial Optimization. IEEE Transactions on Neural Networks, 2004, 15, 84-98.	4.2	20
63	Measuring algorithm footprints in instance space. , 2012, , .		20
64	PPDAM. International Journal of Intelligent Information Technologies, 2005, 1, 49-69.	0.8	19
65	Optimization via Intermittency with a Self-Organizing Neural Network. Neural Computation, 2005, 17, 2454-2481.	2.2	18
66	Improved Support Vector Machine Generalization Using Normalized Input Space. Lecture Notes in Computer Science, 2006, , 362-371.	1.3	18
67	Fast, accurate, and small-scale direct trajectory optimization using a Gegenbauer transcription method. Journal of Computational and Applied Mathematics, 2013, 251, 93-116.	2.0	18
68	Mapping the Effectiveness of Automated Test Suite Generation Techniques. IEEE Transactions on Reliability, 2018, 67, 771-785.	4.6	18
69	Artificial Neural Networks and Job-specific Modules to Assess Occupational Exposure. Annals of Occupational Hygiene, 2004, 48, 595-600.	1.9	17
70	Adaptive Fusion of Gait and Face for Human Identification in Video. , 2008, , .		17
71	Notes on Feasibility and Optimality Conditions of Small-Scale Multifunction Robotic Cell Scheduling Problems With Pickup Restrictions. IEEE Transactions on Industrial Informatics, 2015, 11, 821-829.	11.3	17
72	Kernal Width Selection for SVM Classification. International Journal of Data Warehousing and Mining, 2005, 1, 78-97.	0.6	17

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73	On Sampling Methods for Costly Multi-Objective Black-Box Optimization. Springer Optimization and Its Applications, 2016, , 273-296.	0.9	16
74	Coordinated scheduling of production and delivery from multiple plants and with time windows using genetic algorithms. , 0, , .		15
75	Revisiting where are the hard knapsack problems? via Instance Space Analysis. Computers and Operations Research, 2021, 128, 105184.	4.0	15
76	Generating Applicable Synthetic Instances for Branch Problems. Operations Research, 2013, 61, 563-577.	1.9	14
77	A mathematical programming approach to optimise insurance premium pricing within a data mining framework. Journal of the Operational Research Society, 2002, 53, 1197-1203.	3.4	13
78	A framework for stochastic scheduling of two-machine robotic rework cells with in-process inspection system. Computers and Industrial Engineering, 2017, 112, 492-502.	6.3	13
79	A Featureâ€Based Procedure for Detecting Technical Outliers in Waterâ€Quality Data From In Situ Sensors. Water Resources Research, 2019, 55, 8547-8568.	4.2	12
80	Algorithm selection and instance space analysis for curriculum-based course timetabling. Journal of Scheduling, 2022, 25, 35-58.	1.9	12
81	HDGSOMr: A High Dimensional Growing Self-Organizing Map Using Randomness for Efficient Web and Text Mining. , 0, , .		11
82	Enhanced instance space analysis for the maximum flow problem. European Journal of Operational Research, 2023, 304, 411-428.	5.7	11
83	A clustering algorithm based on an estimated distribution model. International Journal of Business Intelligence and Data Mining, 2005, 1, 229.	0.2	10
84	An approach to the mean shift outlier model by Tikhonov regularization and conic programming. Intelligent Data Analysis, 2014, 18, 79-94.	0.9	10
85	On optimal degree selection for polynomial kernel with support vector machines: Theoretical and empirical investigations. International Journal of Knowledge-Based and Intelligent Engineering Systems, 2007, 11, 1-18.	1.0	9
86	A novel Episodic Associative Memory model for enhanced classification accuracy. Pattern Recognition Letters, 2007, 28, 1193-1202.	4.2	9
87	Meta-learning for data summarization based on instance selection method. , 2010, , .		9
88	Method for Optimizing Coating Properties Based on an Evolutionary Algorithm Approach. Analytical Chemistry, 2011, 83, 6373-6380.	6.5	9
89	Increasing Throughput for a Class of Two-Machine Robotic Cells Served by a Multifunction Robot. IEEE Transactions on Automation Science and Engineering, 2017, 14, 1150-1159.	5.2	9
90	An Instance Space Analysis of Regression Problems. ACM Transactions on Knowledge Discovery From Data, 2021, 15, 1-25.	3.5	9

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91	Predicting Metaheuristic Performance on Graph Coloring Problems Using Data Mining. Studies in Computational Intelligence, 2013, , 417-432.	0.9	8
92	Effects of function translation and dimensionality reduction on landscape analysis. , 2015, , .		8
93	Support Vector Machines for Characterising Whipple Shield Performance. Procedia Engineering, 2015, 103, 522-529.	1.2	8
94	Coordinated Control Can Deliver Synergies Across Multiple Rainwater Storages. Water Resources Research, 2022, 58, .	4.2	8
95	Relating instance hardness to classification performance in a dataset: a visual approach. Machine Learning, 2022, 111, 3085-3123.	5.4	8
96	Modeling the Effect of Premium Changes on Motor Insurance Customer Retention Rates Using Neural Networks. Lecture Notes in Computer Science, 2001, , 390-399.	1.3	7
97	Communal Detection of Implicit Personal Identity Streams. , 2006, , .		7
98	Future trends in business analytics and optimization. Intelligent Data Analysis, 2011, 15, 1001-1017.	0.9	7
99	A heuristic algorithm for finding cost-effective solutions to real-world school bus routing problems. Journal of Discrete Algorithms, 2018, 52-53, 2-17.	0.7	7
100	Instance space analysis for a personnel scheduling problem. Annals of Mathematics and Artificial Intelligence, 2021, 89, 617-637.	1.3	7
101	Resolution of deadlocks in a robotic cell scheduling problem with post-process inspection system: Avoidance and recovery scenarios. , 2015, , .		6
102	Towards Understanding Clustering Problems and Algorithms: An Instance Space Analysis. Algorithms, 2021, 14, 95.	2.1	6
103	Revisiting Facial Age Estimation With New Insights From Instance Space Analysis. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, 44, 2689-2697.	13.9	6
104	A new parallel genetic algorithm. , 0, , .		5
105	The VSA Process for Oxygen Enrichment: Process Description and Dynamic Modeling Using Neural Networks. International Journal of Smart Engineering System Design, 2003, 5, 1-9.	0.2	5
106	Adaptive communal detection in search of adversarial identity crime. , 2007, , .		5
107	Face image modeling by multilinear subspace analysis with missing values. , 2009, , .		5
108	Identifying patterns in primary care consultations: a cluster analysis. Journal of Evaluation in Clinical Practice, 2009, 15, 558-564.	1.8	5

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109	Generating custom classification datasets by targeting the instance space. , 2017, , .		5
110	Generation techniques for linear programming instances with controllable properties. Mathematical Programming Computation, 2020, 12, 389-415.	4.8	5
111	Analyzing randomness effects on the reliability of exploratory landscape analysis. Natural Computing, 2022, 21, 131-154.	3.0	5
112	A neural clustering approach to iso-resource grouping for acute healthcare in Australia. , 0, , .		4
113	Multi-user natural interaction with sensor on activity. , 2013, , .		4
114	Dynamic algorithm selection for pareto optimal set approximation. Journal of Global Optimization, 2017, 67, 263-282.	1.8	4
115	Instance Space Analysis of Combinatorial Multi-objective Optimization Problems. , 2020, , .		4
116	Efficient Identification of the Pareto Optimal Set. Lecture Notes in Computer Science, 2014, , 341-352.	1.3	4
117	Functionalization of microarray devices: Process optimization using a multiobjective PSO and multiresponse MARS modeling. , 2010, , .		3
118	Projection defocus correction using adaptive kernel sampling and geometric correction in dual-planar environments. , 2011, , .		3
119	Stochastic modelling of biochemical systems of multi-step reactions using a simplified two-variable model. BMC Systems Biology, 2013, 7, S14.	3.0	3
120	On the optimization of Gegenbauer operational matrix of integration. Advances in Computational Mathematics, 2013, 39, 511-524.	1.6	3
121	Exploring the role of graph spectra in graph coloring algorithm performance. Discrete Applied Mathematics, 2014, 176, 107-121.	0.9	3
122	Symmetry breaking of identical projects in the high-multiplicity RCPSP/max. Journal of the Operational Research Society, 2019, , 1-22.	3.4	3
123	On the diversity and robustness of parameterised multi-objective test suites. Applied Soft Computing Journal, 2021, 110, 107613.	7.2	3
124	Clustering Massive High Dimensional Data with Dynamic Feature Maps. Lecture Notes in Computer Science, 2006, , 814-823.	1.3	3
125	SpecVCMV: Improving cluster visualisation. , 2011, , .		2
126	Managing uncertainty in early estimation of epidemic behaviors using scenario trees. IIE Transactions, 2014, 46, 828-842.	2.1	2

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127	The School Bus Routing Problem: AnÂAnalysis and Algorithm. Lecture Notes in Computer Science, 2018, , 287-298.	1.3	2
128	Meta-Learning of Instance Selection for Data Summarization. Studies in Computational Intelligence, 2011, , 77-95.	0.9	2
129	Characteristic updating-normalisation dynamics of a self-organising neural network for enhanced combinatorial optimisation. , 0, , .		1
130	Computation of Meta-Learning Classifiers in Distributed Data Mining using a Novel Cognitive Memory Model. , 0, , .		1
131	Meta-Learning: From Classification to Forecasting, to Optimization, and Beyond. , 2007, , .		1
132	A two-variable model for stochastic modelling of chemical events with multi-step reactions. , 2012, , .		1
133	Approximate Bayesian computation for estimating rate constants in biochemical reaction systems. , 2013, , .		1
134	A note on the relationship between turbulent coherent structures and phase correlation. Chaos, 2014, 24, 023114.	2.5	1
135	Special Issue on Business Analytics and Intelligent Optimization. Intelligent Data Analysis, 2014, 18, 1-2.	0.9	1
136	Integrating Game Theory and Data Mining for Dynamic Distribution of Police to Combat Crime. , 2018, , .		1
137	Early classification of spatio-temporal events using partial information. PLoS ONE, 2020, 15, e0236331.	2.5	1
138	Two stage partial classification for inconsistent and imbalanced classes. , 2006, , .		0
139	Utility of real-time decision-making in commercial data stream mining domains. , 2008, , .		0
140	Towards objective data selection in bankruptcy prediction. , 2012, , .		0
141	Selecting suitable solution strategies for Classes of graph coloring instances using data mining. , 2013, , .		0
142	How to extract meaningful shapes from noisy time-series subsequences?. , 2013, , .		0
143	Realistic Projection on Casual Dual-Planar Surfaces with Global Illumination Compensation. International Journal of Image and Graphics, 2016, 16, 1650014.	1.5	0
144	Parameter estimation for a point-source diffusion-decay morphogen model. Journal of Mathematical Biology, 2020, 80, 2227-2255.	1.9	0

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145	Genetic Line Search. Lecture Notes in Computer Science, 2001, , 318-326.	1.3	0