Kate A Smith-Miles

List of Publications by Year
in descending order

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	Enhanced instance space analysis for the maximum flow problem. European Journal of Operational Research, 2023, 304, 411-428.	5.7	11
2	Analyzing randomness effects on the reliability of exploratory landscape analysis. Natural Computing, 2022, 21, 131-154.	3.0	5
3	Algorithm selection and instance space analysis for curriculum-based course timetabling. Journal of Scheduling, 2022, 25, 35-58.	1.9	12
4	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
5	Coordinated Control Can Deliver Synergies Across Multiple Rainwater Storages. Water Resources Research, 2022, 58, .	4.2	8
6	Relating instance hardness to classification performance in a dataset: a visual approach. Machine Learning, 2022, 111, 3085-3123.	5.4	8
7	Instance space analysis for a personnel scheduling problem. Annals of Mathematics and Artificial Intelligence, 2021, 89, 617-637.	1.3	7
8	Anomaly Detection in High-Dimensional Data. Journal of Computational and Graphical Statistics, 2021, 30, 360-374.	1.7	28
9	Revisiting where are the hard knapsack problems? via Instance Space Analysis. Computers and Operations Research, 2021, 128, 105184.	4.0	15
10	Towards Understanding Clustering Problems and Algorithms: An Instance Space Analysis. Algorithms, 2021, 14, 95.	2.1	6
11	An Instance Space Analysis of Regression Problems. ACM Transactions on Knowledge Discovery From Data, 2021, 15, 1-25.	3.5	9
12	On the diversity and robustness of parameterised multi-objective test suites. Applied Soft Computing Journal, 2021, 110, 107613.	7.2	3
13	Anomaly Detection in Streaming Nonstationary Temporal Data. Journal of Computational and Graphical Statistics, 2020, 29, 13-27.	1.7	35
14	Generation techniques for linear programming instances with controllable properties. Mathematical Programming Computation, 2020, 12, 389-415.	4.8	5
15	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
16	On normalization and algorithm selection for unsupervised outlier detection. Data Mining and Knowledge Discovery, 2020, 34, 309-354.	3.7	36
17	Generating New Space-Filling Test Instances for Continuous Black-Box Optimization. Evolutionary Computation, 2020, 28, 379-404.	3.0	27
18	Instance Space Analysis of Combinatorial Multi-objective Optimization Problems. , 2020, , .		4

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19	Early classification of spatio-temporal events using partial information. PLoS ONE, 2020, 15, e0236331.	2.5	1
20	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
21	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
22	Parameter estimation for a point-source diffusion-decay morphogen model. Journal of Mathematical Biology, 2020, 80, 2227-2255.	1.9	0
23	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
24	Symmetry breaking of identical projects in the high-multiplicity RCPSP/max. Journal of the Operational Research Society, 2019, , 1-22.	3.4	3
25	Instance spaces for machine learning classification. Machine Learning, 2018, 107, 109-147.	5.4	87
26	The School Bus Routing Problem: AnÂAnalysis and Algorithm. Lecture Notes in Computer Science, 2018, , 287-298.	1.3	2
27	Integrating Game Theory and Data Mining for Dynamic Distribution of Police to Combat Crime. , 2018, , .		1
28	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
29	A cross-entropy method for optimising robotic automated storage and retrieval systems. International Journal of Production Research, 2018, 56, 6450-6472.	7.5	39
30	Mapping the Effectiveness of Automated Test Suite Generation Techniques. IEEE Transactions on Reliability, 2018, 67, 771-785.	4.6	18
31	Dynamic algorithm selection for pareto optimal set approximation. Journal of Global Optimization, 2017, 67, 263-282.	1.8	4
32	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
33	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
34	Visualising forecasting algorithm performance using time series instance spaces. International Journal of Forecasting, 2017, 33, 345-358.	6.5	109
35	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
36	Generating custom classification datasets by targeting the instance space. , 2017, , .		5

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37	Performance Analysis of Continuous Black-Box Optimization Algorithms via Footprints in Instance Space. Evolutionary Computation, 2017, 25, 529-554.	3.0	44
38	Realistic Projection on Casual Dual-Planar Surfaces with Global Illumination Compensation. International Journal of Image and Graphics, 2016, 16, 1650014.	1.5	0
39	On Sampling Methods for Costly Multi-Objective Black-Box Optimization. Springer Optimization and Its Applications, 2016, , 273-296.	0.9	16
40	Effects of function translation and dimensionality reduction on landscape analysis. , 2015, , .		8
41	Resolution of deadlocks in a robotic cell scheduling problem with post-process inspection system: Avoidance and recovery scenarios. , 2015, , .		6
42	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
43	Classes of structures in the stable atmospheric boundary layer. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 2057-2069.	2.7	39
44	Generating new test instances by evolving in instance space. Computers and Operations Research, 2015, 63, 102-113.	4.0	57
45	Support Vector Machines for Characterising Whipple Shield Performance. Procedia Engineering, 2015, 103, 522-529.	1.2	8
46	An approach to the mean shift outlier model by Tikhonov regularization and conic programming. Intelligent Data Analysis, 2014, 18, 79-94.	0.9	10
47	A note on the relationship between turbulent coherent structures and phase correlation. Chaos, 2014, 24, 023114.	2.5	1
48	Special Issue on Business Analytics and Intelligent Optimization. Intelligent Data Analysis, 2014, 18, 1-2.	0.9	1
49	Detecting and Classifying Events in Noisy Time Series. Journals of the Atmospheric Sciences, 2014, 71, 1090-1104.	1.7	31
50	Mathematical modeling of GATA-switching for regulating the differentiation of hematopoietic stem cell. BMC Systems Biology, 2014, 8, S8.	3.0	28
51	Managing uncertainty in early estimation of epidemic behaviors using scenario trees. IIE Transactions, 2014, 46, 828-842.	2.1	2
52	Assessing partnership savings in horizontal cooperation by planning linked deliveries. Transportation Research, Part A: Policy and Practice, 2014, 66, 268-279.	4.2	33
53	Towards objective measures of algorithm performance across instance space. Computers and Operations Research, 2014, 45, 12-24.	4.0	130
54	Exploring the role of graph spectra in graph coloring algorithm performance. Discrete Applied Mathematics, 2014, 176, 107-121.	0.9	3

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55	Approximate Bayesian computation schemes for parameter inference of discrete stochastic models using simulated likelihood density. BMC Bioinformatics, 2014, 15, S3.	2.6	21
56	Efficient Identification of the Pareto Optimal Set. Lecture Notes in Computer Science, 2014, , 341-352.	1.3	4
57	Stochastic modelling of biochemical systems of multi-step reactions using a simplified two-variable model. BMC Systems Biology, 2013, 7, S14.	3.0	3
58	Approximate Bayesian computation for estimating rate constants in biochemical reaction systems. , 2013, , .		1
59	Multi-user natural interaction with sensor on activity. , 2013, , .		4
60	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
61	On the optimization of Gegenbauer operational matrix of integration. Advances in Computational Mathematics, 2013, 39, 511-524.	1.6	3
62	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
63	Optimal Gegenbauer quadrature over arbitrary integration nodes. Journal of Computational and Applied Mathematics, 2013, 242, 82-106.	2.0	28
64	Selecting suitable solution strategies for Classes of graph coloring instances using data mining. , 2013, , .		0
65	Predicting Metaheuristic Performance on Graph Coloring Problems Using Data Mining. Studies in Computational Intelligence, 2013, , 417-432.	0.9	8
66	How to extract meaningful shapes from noisy time-series subsequences?. , 2013, , .		0
67	Generating Applicable Synthetic Instances for Branch Problems. Operations Research, 2013, 61, 563-577.	1.9	14
68	Measuring algorithm footprints in instance space. , 2012, , .		20
69	Mathematical modelling of stem cell differentiation: the PU.1â€“GATA-1 interaction. Journal of Mathematical Biology, 2012, 64, 449-468.	1.9	33
70	A two-variable model for stochastic modelling of chemical events with multi-step reactions. , 2012, , .		1
71	Towards objective data selection in bankruptcy prediction. , 2012, , .		0
72	Resilient Identity Crime Detection. IEEE Transactions on Knowledge and Data Engineering, 2012, 24, 533-546.	5.7	43

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73	Measuring instance difficulty for combinatorial optimization problems. Computers and Operations Research, 2012, 39, 875-889.	4.0	155
74	Self-organizing circuitry and emergent computation in mouse embryonic stem cells. Stem Cell Research, 2012, 8, 324-333.	0.7	21
75	Projection defocus correction using adaptive kernel sampling and geometric correction in dual-planar environments. , 2011, , .		3
76	Method for Optimizing Coating Properties Based on an Evolutionary Algorithm Approach. Analytical Chemistry, 2011, 83, 6373-6380.	6.5	9
77	Generalising Algorithm Performance in Instance Space: A Timetabling Case Study. Lecture Notes in Computer Science, 2011, , 524-538.	1.3	21
78	Face Image Modeling by Multilinear Subspace Analysis With Missing Values. IEEE Transactions on Systems, Man, and Cybernetics, 2011, 41, 881-892.	5.0	51
79	Future trends in business analytics and optimization. Intelligent Data Analysis, 2011, 15, 1001-1017.	0.9	7
80	Discovering the suitability of optimisation algorithms by learning from evolved instances. Annals of Mathematics and Artificial Intelligence, 2011, 61, 87-104.	1.3	79
81	SpecVCMV: Improving cluster visualisation. , 2011, , .		2
82	Meta-Learning of Instance Selection for Data Summarization. Studies in Computational Intelligence, 2011, , 77-95.	0.9	2
83	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
84	Functionalization of microarray devices: Process optimization using a multiobjective PSO and multiresponse MARS modeling. , 2010, , .		3
85	Meta-learning for data summarization based on instance selection method. , 2010, , .		9
86	Understanding TSP Difficulty by Learning from Evolved Instances. Lecture Notes in Computer Science, 2010, , 266-280.	1.3	55
87	Face image modeling by multilinear subspace analysis with missing values. , 2009, , .		5
88	Rule induction for forecasting method selection: Meta-learning the characteristics of univariate time series. Neurocomputing, 2009, 72, 2581-2594.	5.9	136
89	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
90	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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91	Cross-disciplinary perspectives on meta-learning for algorithm selection. ACM Computing Surveys, 2009, 41, 1-25.	23.0	343
92	Facial age estimation by multilinear subspace analysis. , 2009, , .		29
93	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
94	Towards insightful algorithm selection for optimisation using meta-learning concepts. , 2008, , .		60
95	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
96	Adaptive Fusion of Gait and Face for Human Identification in Video. , 2008, , .		17
97	Facial age estimation by nonlinear aging pattern subspace. , 2008, , .		49
98	Individual Stable Space: An Approach to Face Recognition Under Uncontrolled Conditions. IEEE Transactions on Neural Networks, 2008, 19, 1354-1368.	4.2	37
99	Utility of real-time decision-making in commercial data stream mining domains. , 2008, , .		0
100	Adaptive communal detection in search of adversarial identity crime. , 2007, , .		5
101	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
102	Redundant association rules reduction techniques. International Journal of Business Intelligence and Data Mining, 2007, 2, 29.	0.2	55
103	Automatic Age Estimation Based on Facial Aging Patterns. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2007, 29, 2234-2240.	13.9	780
104	Meta-Learning: From Classification to Forecasting, to Optimization, and Beyond. , 2007, , .		1
105	A novel Episodic Associative Memory model for enhanced classification accuracy. Pattern Recognition Letters, 2007, 28, 1193-1202.	4.2	9
106	Two stage partial classification for inconsistent and imbalanced classes. , 2006, , .		0
107	On learning algorithm selection for classification. Applied Soft Computing Journal, 2006, 6, 119-138.	7.2	342
108	Improved Support Vector Machine Generalization Using Normalized Input Space. Lecture Notes in Computer Science, 2006, , 362-371.	1.3	18

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109	Characteristic-Based Clustering for Time Series Data. Data Mining and Knowledge Discovery, 2006, 13, 335-364.	3.7	435
110	A meta-learning approach to automatic kernel selection for support vector machines. Neurocomputing, 2006, 70, 173-186.	5.9	103
111	Communal Detection of Implicit Personal Identity Streams. , 2006, , .		7
112	Clustering Massive High Dimensional Data with Dynamic Feature Maps. Lecture Notes in Computer Science, 2006, , 814-823.	1.3	3
113	A clustering algorithm based on an estimated distribution model. International Journal of Business Intelligence and Data Mining, 2005, 1, 229.	0.2	10
114	Intelligent web traffic mining and analysis. Journal of Network and Computer Applications, 2005, 28, 147-165.	9.1	66
115	Optimization via Intermittency with a Self-Organizing Neural Network. Neural Computation, 2005, 17, 2454-2481.	2.2	18
116	Kernal Width Selection for SVM Classification. International Journal of Data Warehousing and Mining, 2005, 1, 78-97.	0.6	17
117	PPDAM. International Journal of Intelligent Information Technologies, 2005, 1, 49-69.	0.8	19
118	Artificial Neural Networks and Job-specific Modules to Assess Occupational Exposure. Annals of Occupational Hygiene, 2004, 48, 595-600.	1.9	17
119	A Noisy Self-Organizing Neural Network With Bifurcation Dynamics for Combinatorial Optimization. IEEE Transactions on Neural Networks, 2004, 15, 84-98.	4.2	20
120	Web page clustering using a self-organizing map of user navigation patterns. Decision Support Systems, 2003, 35, 245-256.	5.9	103
121	Hopfield neural networks for timetabling: formulations, methods, and comparative results. Computers and Industrial Engineering, 2003, 44, 283-305.	6.3	60
122	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
123	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
124	Manufacturing cell formation using a new self-organizing neural network. Computers and Industrial Engineering, 2002, 42, 377-382.	6.3	47
125	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
126	Genetic Line Search. Lecture Notes in Computer Science, 2001, , 318-326.	1.3	0

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127	Neural networks in business: techniques and applications for the operations researcher. Computers and Operations Research, 2000, 27, 1023-1044.	4.0	215
128	Experimental analysis of chaotic neural network models for combinatorial optimization under a unifying framework. Neural Networks, 2000, 13, 731-744.	5.9	81
129	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
130	A unified framework for chaotic neural-network approaches to combinatorial optimization. IEEE Transactions on Neural Networks, 1999, 10, 978-981.	4.2	76
131	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
132	On chaotic simulated annealing. IEEE Transactions on Neural Networks, 1998, 9, 716-718.	4.2	173
133	Neural techniques for combinatorial optimization with applications. IEEE Transactions on Neural Networks, 1998, 9, 1301-1318.	4.2	105
134	Static and dynamic channel assignment using neural networks. IEEE Journal on Selected Areas in Communications, 1997, 15, 238-249.	14.0	116
135	Neural versus traditional approaches to the location of interacting hub facilities. Location Science, 1996, 4, 155-171.	0.1	52
136	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
137	A hybrid neural approach to combinatorial optimization. Computers and Operations Research, 1996, 23, 597-610.	4.0	43
138	Traditional heuristic versus Hopfield neural network approaches to a car sequencing problem. European Journal of Operational Research, 1996, 93, 300-316.	5.7	43
139	A neural clustering approach to iso-resource grouping for acute healthcare in Australia. , 0, , .		4
140	Characteristic updating-normalisation dynamics of a self-organising neural network for enhanced combinatorial optimisation. , 0, , .		1
141	Coordinated scheduling of production and delivery from multiple plants and with time windows using genetic algorithms. , 0, , .		15
142	A new parallel genetic algorithm. , 0, , .		5
143	Automatic parameter selection for polynomial kernel. , 0, , .		26
144	Computation of Meta-Learning Classifiers in Distributed Data Mining using a Novel Cognitive Memory Model. , 0, , .		1

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145	HDGSOMr: A High Dimensional Growing Self-Organizing Map Using Randomness for Efficient Web and Text Mining. , 0, , .		11