Xiaodong Liu

List of Publications by Year
in descending order

127 papers	3,007 citations	186209 28 h-index	189801 50 g-index
127 all docs	127 docs citations	127 times ranked	2106 citing authors

#	Article	IF	Citations
1	Approaches to quadratic stability conditions and H//subâˆž/ control designs for T-S fuzzy systems. IEEE Transactions on Fuzzy Systems, 2003, 11, 830-839.	6.5	213
2	A Pearsonâ€™s correlation coefficient based decision tree and its parallel implementation. Information Sciences, 2018, 435, 40-58.	4.0	191
3	Selection of logistics center location using Axiomatic Fuzzy Set and TOPSIS methodology in logistics management. Expert Systems With Applications, 2011, 38, 7901-7908.	4.4	115
4	Using interval information granules to improve forecasting in fuzzy time series. International Journal of Approximate Reasoning, 2015, 57, 1-18.	1.9	109
5	Fuzzy C-Means clustering of incomplete data based on probabilistic information granules of missing values. Knowledge-Based Systems, 2016, 99, 51-70.	4.0	97
6	Concept analysis via rough set and AFS algebra. Information Sciences, 2008, 178, 4125-4137.	4.0	95
7	The modeling of time series based on fuzzy information granules. Expert Systems With Applications, 2014, 41, 3799-3808.	4.4	92
8	Time series long-term forecasting model based on information granules and fuzzy clustering. Engineering Applications of Artificial Intelligence, 2015, 41, 17-24.	4.3	83
9	The modeling and prediction of time series based on synergy of high-order fuzzy cognitive map and fuzzy c-means clustering. Knowledge-Based Systems, 2014, 70, 242-255.	4.0	81
10	A generalized method for forecasting based on fuzzy time series. Expert Systems With Applications, 2011, 38, 10446-10453.	4.4	79
11	The Fuzzy Clustering Analysis Based on AFS Theory. IEEE Transactions on Systems, Man, and Cybernetics, 2005, 35, 1013-1027.	5.5	78
12	The development of fuzzy decision trees in the framework of Axiomatic Fuzzy Set logic. Applied Soft Computing Journal, 2007, 7, 325-342.	4.1	73
13	Extraction of fuzzy rules from fuzzy decision trees: An axiomatic fuzzy sets (AFS) approach. Data and Knowledge Engineering, 2013, 84, 1-25.	2.1	72
14	Fuzzy rule based decision trees. Pattern Recognition, 2015, 48, 50-59.	5.1	69
15	Determination of temporal information granules to improve forecasting in fuzzy time series. Expert Systems With Applications, 2014, 41, 3134-3142.	4.4	68
16	Adaptive neuro-fuzzy algorithm to estimate effective wind speed and optimal rotor speed for variable-speed wind turbine. Neurocomputing, 2018, 272, 495-504.	3.5	68
17	Approaches to the representations and logic operations of fuzzy concepts in the framework of axiomatic fuzzy set theory I. Information Sciences, 2007, 177, 1007-1026.	4.0	63
18	Axiomatic Fuzzy Set Theory and Its Applications. Studies in Fuzziness and Soft Computing, 2009, , .	0.6	51

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19	The Development of Fuzzy Rough Sets with the Use of Structures and Algebras of Axiomatic Fuzzy Sets. IEEE Transactions on Knowledge and Data Engineering, 2009, 21, 443-462.	4.0	50
20	Fuzzy forecasting based on automatic clustering and axiomatic fuzzy set classification. Information Sciences, 2015, 294, 78-94.	4.0	49
21	An integrated multiple criteria decision making model applying axiomatic fuzzy set theory. Applied Mathematical Modelling, 2012, 36, 5046-5058.	2.2	45
22	From numeric data to information granules: A design through clustering and the principle of justifiable granularity. Knowledge-Based Systems, 2016, 101, 100-113.	4.0	41
23	Supplier selection using axiomatic fuzzy set and TOPSIS methodology in supply chain management. Fuzzy Optimization and Decision Making, 2012, 11, 147-176.	3.4	40
24	Hidden Markov Models Based Approaches to Long-Term Prediction for Granular Time Series. IEEE Transactions on Fuzzy Systems, 2018, 26, 2807-2817.	6.5	40
25	Estimation of wind speed probability distribution and wind energy potential using adaptive neuro-fuzzy methodology. Neurocomputing, 2018, 287, 58-67.	3.5	34
26	Estimation of wind turbine power coefficient by adaptive neuro-fuzzy methodology. Neurocomputing, 2017, 238, 227-233.	3.5	31
27	Forecasting shanghai composite index based on fuzzy time series and improved C-fuzzy decision trees. Expert Systems With Applications, 2012, 39, 7680-7689.	4.4	29
28	Local analysis of continuous-time Takagiâ€“Sugeno fuzzy system with disturbances bounded by magnitude or energy: A Lagrange multiplier method. Information Sciences, 2013, 248, 89-102.	4.0	29
29	Mining axiomatic fuzzy set association rules for classification problems. European Journal of Operational Research, 2012, 218, 202-210.	3.5	28
30	Image retrieval based on effective feature extraction and diffusion process. Multimedia Tools and Applications, 2019, 78, 6163-6190.	2.6	28
31	A new fuzzy model of pattern recognition and hitch diagnoses of complex systems. Fuzzy Sets and Systems, 1999, 104, 289-296.	1.6	27
32	Human-centric analysis and interpretation of time series: a perspective of granular computing. Soft Computing, 2014, 18, 2397-2411.	2.1	26
33	Fuzzy time series forecasting based on axiomatic fuzzy set theory. Neural Computing and Applications, 2019, 31, 3921-3932.	3.2	25
34	Ensemble approach for short term load forecasting in wind energy system using hybrid algorithm. Journal of Ambient Intelligence and Humanized Computing, 2020, 11, 5297-5314.	3.3	25
35	Improved Gathâ€“Geva clustering for fuzzy segmentation of hydrometeorological time series. Stochastic Environmental Research and Risk Assessment, 2012, 26, 139-155.	1.9	24
36	A parsimony fuzzy rule-based classifier using axiomatic fuzzy set theory and support vector machines. Information Sciences, 2011, 181, 5180-5193.	4.0	23

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37	A parallel C4.5 decision tree algorithm based on MapReduce. Concurrency Computation Practice and Experience, 2017, 29, e4015.	1.4	23
38	Approaches to the representations and logic operations of fuzzy concepts in the framework of axiomatic fuzzy set theory II. Information Sciences, 2007, 177, 1027-1045.	4.0	22
39	Information Granulation-Based Fuzzy Clustering of Time Series. IEEE Transactions on Cybernetics, 2021, 51, 6253-6261.	6.2	21
40	Novel artificial intelligent techniques via AFS theory: Feature selection, concept categorization and characteristic description. Applied Soft Computing Journal, 2010, 10, 793-805.	4.1	20
41	The granular extension of Sugeno-type fuzzy models based on optimal allocation of information granularity and its application to forecasting of time series. Applied Soft Computing Journal, 2016, 42, 38-52.	4.1	20
42	A spectral clustering method with semantic interpretation based on axiomatic fuzzy set theory. Applied Soft Computing Journal, 2018, 64, 59-74.	4.1	20
43	Applications of axiomatic fuzzy set clustering method on management strategic analysis. European Journal of Operational Research, 2009, 198, 297-304.	3.5	19
44	A new algebraic structure for formal concept analysis. Information Sciences, 2010, 180, 4865-4876.	4.0	19
45	Fuzzy clustering with semantic interpretation. Applied Soft Computing Journal, 2015, 26, 21-30.	4.1	19
46	Granular Fuzzy Modeling for Multidimensional Numeric Data: A Layered Approach Based on Hyperbox. IEEE Transactions on Fuzzy Systems, 2019, 27, 775-789.	6.5	19
47	Adaptive reconfigurable control of systems with timeâ€varying delay against unknown actuator faults. International Journal of Adaptive Control and Signal Processing, 2014, 28, 1206-1226.	2.3	17
48	Further studies on Hâˆž observer design for continuous-time Takagiâ€“Sugeno fuzzy model. Information Sciences, 2018, 422, 396-407.	4.0	17
49	The Learning of Fuzzy Cognitive Maps With Noisy Data: A Rapid and Robust Learning Method With Maximum Entropy. IEEE Transactions on Cybernetics, 2021, 51, 2080-2092.	6.2	17
50	An improved PROMETHEE II method based on Axiomatic Fuzzy Sets. Neural Computing and Applications, 2014, 25, 1675-1683.	3.2	16
51	Knowledge discovery and semantic learning in the framework of axiomatic fuzzy set theory. Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery, 2018, 8, e1268.	4.6	16
52	Credit Rating Analysis with AFS Fuzzy Logic. Lecture Notes in Computer Science, 2005, , 1198-1204.	1.0	15
53	The use of axiomatic fuzzy set theory in AHP and TOPSIS methodology to determine strategies priorities by SWOT analysis. Quality and Quantity, 2013, 47, 2671-2685.	2.0	15
54	Nearness approximation space based on axiomatic fuzzy sets. International Journal of Approximate Reasoning, 2012, 53, 200-211.	1.9	14

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55	H â^ž Filtering Design for 2-D Discrete-Time Linear Systems with Polytopic Uncertainty. Circuits, Systems, and Signal Processing, 2013, 32, 333-345.	1.2	13
56	Dynamic programming approach for segmentation of multivariate time series. Stochastic Environmental Research and Risk Assessment, 2015, 29, 265-273.	1.9	13
57	Possibility-Based ELECTRE II Method with Uncertain Linguistic Fuzzy Variables. International Journal of Pattern Recognition and Artificial Intelligence, 2017, 31, 1759016.	0.7	13
58	AFSNN: A Classification Algorithm Using Axiomatic Fuzzy Sets and Neural Networks. IEEE Transactions on Fuzzy Systems, 2018, 26, 3151-3163.	6.5	13
59	Online banking performance evaluation using data envelopment analysis and axiomatic fuzzy set clustering. Quality and Quantity, 2013, 47, 1259-1273.	2.0	12
60	Fast and Effective Learning for Fuzzy Cognitive Maps: A Method Based on Solving Constrained Convex Optimization Problems. IEEE Transactions on Fuzzy Systems, 2020, 28, 2958-2971.	6.5	12
61	A parallel fuzzy rule-base based decision tree in the framework of map-reduce. Pattern Recognition, 2020, 103, 107326.	5.1	12
62	Deep Fuzzy Rule-Based Classification System With Improved Wangâ€“Mendel Method. IEEE Transactions on Fuzzy Systems, 2022, 30, 2957-2970.	6.5	12
63	The framework of axiomatics fuzzy sets based fuzzy classifiers. Journal of Industrial and Management Optimization, 2008, 4, 581-609.	0.8	12
64	Gain Scheduled State Feedback Control for Discrete-Time-Varying Polytopic Systems Subject to Input Saturation. Circuits, Systems, and Signal Processing, 2011, 30, 1165-1182.	1.2	11
65	Granular Description With Multigranularity for Multidimensional Data: A Cone-Shaped Fuzzy Set-Based Method. IEEE Transactions on Fuzzy Systems, 2021, 29, 1786-1801.	6.5	11
66	Granular Fuzzy Modeling Guided Through the Synergy of Granulating Output Space and Clustering Input Subspaces. IEEE Transactions on Cybernetics, 2021, 51, 2625-2638.	6.2	11
67	Axiomatics fuzzy sets logic. , 0, , .		10
68	Multivariate time series prediction using a hybridization of VARMA models and Bayesian networks. Journal of Applied Statistics, 2016, 43, 2897-2909.	0.6	10
69	Parameter-varying state feedback control for discrete-time polytopic systems. International Journal of Systems Science, 2011, 42, 997-1005.	3.7	9
70	The linguistic forecasting of time series based on fuzzy cognitive maps. , 2013, , .		9
71	Shadow determination and compensation for face recognition. International Journal of Machine Learning and Cybernetics, 2014, 5, 599-605.	2.3	9
72	A Global Clustering Approach Using Hybrid Optimization for Incomplete Data Based on Interval Reconstruction of Missing Value. International Journal of Intelligent Systems, 2016, 31, 297-313.	3.3	9

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73	iPseU-Layer: Identifying RNA Pseudouridine Sites Using Layered Ensemble Model. Interdisciplinary Sciences, Computational Life Sciences, 2020, 12, 193-203.	2.2	9
74	Top-Down Granulation Modeling Based on the Principle of Justifiable Granularity. IEEE Transactions on Fuzzy Systems, 2022, 30, 701-713.	6.5	9
75	Stability analysis for discreteâ€time fuzzy system by utilizing homogeneous polynomial matrix function. Asian Journal of Control, 2009, 11, 700-706.	1.9	8
76	An Efficient Load Forecasting in Predictive Control Strategy Using Hybrid Neural Network. Journal of Circuits, Systems and Computers, 2020, 29, 2050010.	1.0	8
77	Optimal electrical load forecasting for hybrid renewable resources through a hybrid memetic cuckoo search approach. Soft Computing, 2020, 24, 13099-13114.	2.1	8
78	Observer-based tracking control for a class of switched fuzzy systems with fast switching controller. Transactions of the Institute of Measurement and Control, 2015, 37, 230-241.	1.1	7
79	AFSSE: An Interpretable Classifier With Axiomatic Fuzzy Set and Semantic Entropy. IEEE Transactions on Fuzzy Systems, 2020, 28, 2825-2840.	6.5	7
80	Semisupervised Learning via Axiomatic Fuzzy Set Theory and SVM. IEEE Transactions on Cybernetics, 2022, 52, 4661-4674.	6.2	7
81	Hierarchical Axiomatic Fuzzy Set Granulation for Financial Time Series Clustering. IEEE Transactions on Fuzzy Systems, 2022, 30, 755-766.	6.5	7
82	The Fuzzy Clustering Algorithm Based on AFS Topology. Lecture Notes in Computer Science, 2006, , 89-98.	1.0	6
83	A Human-Computer Cooperation Fuzzy c-Means Clustering with Interval-Valued Weights. International Journal of Intelligent Systems, 2015, 30, 81-98.	3.3	6
84	Ranking alternative strategies by SWOT analysis in the framework of the axiomatic fuzzy set theory and the ER approach. Journal of Intelligent and Fuzzy Systems, 2015, 28, 1775-1784.	0.8	6
85	A method for constructing the Composite Indicator of business cycles based on information granulation and Dynamic Time Warping. Knowledge-Based Systems, 2016, 101, 135-141.	4.0	6
86	A hybrid segmentation method for multivariate time series based on the dynamic factor model. Stochastic Environmental Research and Risk Assessment, 2017, 31, 1291-1304.	1.9	6
87	Information granulation-based fuzzy partition in decision tree induction. Information Sciences, 2022, 608, 1651-1674.	4.0	6
88	High-Order Fuzzy Time Series Model Based on Generalized Fuzzy Logical Relationship. Mathematical Problems in Engineering, 2013, 2013, 1-11.	0.6	5
89	Further study on local stabilization of continuous-time nonlinear systems presented as Takagi-Sugeno fuzzy model. Journal of Intelligent and Fuzzy Systems, 2015, 29, 283-292.	0.8	5
90	Dynamic programming-based optimization for segmentation and clustering of hydrometeorological time series. Stochastic Environmental Research and Risk Assessment, 2016, 30, 1875-1887.	1.9	5

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91	Trend-Based Granular Representation of Time Series and its Application in Clustering. IEEE Transactions on Cybernetics, 2022, 52, 9101-9110.	6.2	5
92	Trend analysis of land surface temperatures using time series segmentation algorithm. Journal of Intelligent and Fuzzy Systems, 2016, 31, 1121-1131.	0.8	4
93	A parallel tree node splitting criterion for fuzzy decision trees. Concurrency Computation Practice and Experience, 2019, 31, e5268.	1.4	4
94	Further study on local analysis of continuousâ€time Tâ€S fuzzy models with bounded disturbances. IET Control Theory and Applications, 2019, 13, 403-410.	1.2	4
95	AFS Graph: Multidimensional Axiomatic Fuzzy Set Knowledge Graph for Open-Domain Question Answering. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 10904-10918.	7.2	4
96	Robust control for a class of uncertain time-delay switched fuzzy systems. , 2009, , .		3
97	The Global k-Means Clustering Analysis Based on Multi-Granulations Nearness Neighborhood. Mathematics in Computer Science, 2013, 7, 113-124.	0.2	3
98	Relaxed stability and stabilisation conditions for continuousâ€time Takagiâ€“Sugeno fuzzy systems using multipleâ€parameterised approach. IET Control Theory and Applications, 2017, 11, 774-780.	1.2	3
99	A fast rank mutual information based decision tree and its implementation via Mapâ€Reduce. Concurrency Computation Practice and Experience, 2018, 30, e4387.	1.4	3
100	An extended approach to controller designÂof continuous-time Takagi-Sugeno fuzzy model. Journal of Intelligent and Fuzzy Systems, 2018, 34, 2235-2246.	0.8	3
101	Dynamic time alignment kernel-based fuzzy clustering of non-equal length vector time series. International Journal of Machine Learning and Cybernetics, 2019, 10, 3167-3179.	2.3	3
102	Dynamic programming based fuzzy partition in fuzzy decision tree induction. Journal of Intelligent and Fuzzy Systems, 2020, 39, 6757-6772.	0.8	3
103	Development of Near Sets Within the Framework of Axiomatic Fuzzy Sets. Fundamenta Informaticae, 2012, 118, 291-304.	0.3	2
104	Observer-Based Robust Control of Uncertain Switched Fuzzy Systems with Combined Switching Controller. Mathematical Problems in Engineering, 2013, 2013, 1-13.	0.6	2
105	THE LINGUISTIC FORECASTING OF TIME SERIES USING IMPROVED FUZZY COGNITIVE MAP. International Journal of Computational Intelligence and Applications, 2013, 12, 1350014.	0.6	2
106	An interpretable classifier with linear discriminant analysis based on AFS theory. , 2019, , .		2
107	An optimization algorithm based on text clustering for warehouse storage location allocation. , 2019, , .		2
108	A Text-Granulation Clustering Approach With Semantics for E-Commerce Intelligent Storage Allocation. IEEE Access, 2020, 8, 164282-164291.	2.6	2

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109	H/sub /spl infin// control and parametric controllers for descriptor systems. , 2002, , .		1
110	Reliable descriptor systems design using redundant controllers. , 0, , .		1
111	Fuzzy Clustering Approaches Based on AFS Fuzzy Logic I. , 2006, , .		1
112	Robust reliable control for a class of uncertain switched fuzzy systems based on observers switching. , 2010, , .		1
113	Admissibility conditions of dynamic input-output economic model with multiple delays. , 2013, , .		1
114	Observer-based tracking control usingÂunmeasurable premise variables forÂtime-delay switched fuzzy systems. Journal of Intelligent and Fuzzy Systems, 2017, 32, 3973-3985.	0.8	1
115	A novel model to determine the optimal number of servers in finite input source fuzzy queueing system. , 2017, , .		1
116	An approach to scene matching algorithm for UAV autonomous navigation. , 2018, , .		1
117	Futures Price Forecasting Based on the Feature Fusion LSTM Model Using Long-Term Price Patterns. , 2021, , .		1
118	Deep convolutional fuzzy systems of stock value prediction based on AFS theory. , 2021, , .		1
119	Study on the data filling model for the turning motion of the training boat with missing observations. , 2020, , .		1
120	A New Approach to H<inf>∞</inf>Control Design for T-S Fuzzy Time-delay Systems. , 2006, , .		0
121	The Fuzzy Clustering Analysis Based on AFS Structure and the Topology of EI Algebra. , 2006, , .		0
122	Relaxed stability and stabilization conditions for a class of switched fuzzy discrete systems. , 2009, , .		0
123	Predicting freight with fuzzy granular computing and support vector machine model. , 2013, , .		0
124	Research on fuzzy rules extraction of futures trading based on MapReduce. , 2017, , .		0
125	The trading strategy of inflection point futures analysis based on AFS theory. , 2020, , .		0
126	An Integrated Scheme for Designing Ship Straight Track Controller Based on Sliding Mode and Neural Network. , 2020, , .		0

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127	A new construction method of futures trading strategy construction based on AFS theory. , 2020, , .		0