Lev V Utkin

List of Publications by Year
in descending order

133	1,581	331259	433756
papers	citations	21 h-index	31 g-index

136	136	136	949
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Interval-Valued Finite Markov Chains. Reliable Computing, 2002, 8, 97-113.	0.8	100
2	A general formal approach for fuzzy reliability analysis in the possibility context. Fuzzy Sets and Systems, 1996, 83, 203-213.	1.6	77
3	Interpretable machine learning with an ensemble of gradient boosting machines. Knowledge-Based Systems, 2021, 222, 106993.	4.0	60
4	Imprecise reliability: An introductory overview. Studies in Computational Intelligence, 2007, , 261-306.	0.7	49
5	An imprecise extension of SVM-based machine learning models. Neurocomputing, 2019, 331, 18-32.	3.5	47
6	SurvLIME: A method for explaining machine learning survival models. Knowledge-Based Systems, 2020, 203, 106164.	4.0	44
7	A Siamese Deep Forest. Knowledge-Based Systems, 2018, 139, 13-22.	4.0	42
8	Fuzzy reliability of repairable systems in the possibility context. Microelectronics Reliability, 1994, 34, 1865-1876.	0.9	39
9	Decision making under incomplete data using the imprecise Dirichlet model. International Journal of Approximate Reasoning, 2007, 44, 322-338.	1.9	31
10	Binary classification SVM-based algorithms with interval-valued training data using triangular and Epanechnikov kernels. Neural Networks, 2016, 80, 53-66.	3.3	31
11	A weighted random survival forest. Knowledge-Based Systems, 2019, 177, 136-144.	4.0	29
12	An approach to combining unreliable pieces of evidence and their propagation in a system response analysis. Reliability Engineering and System Safety, 2004, 85, 103-112.	5.1	27
13	On new cautious structural reliability models in the framework of imprecise probabilities. Structural Safety, 2010, 32, 411-416.	2.8	27
14	A method for processing the unreliable expert judgments about parameters of probability distributions. European Journal of Operational Research, 2006, 175, 385-398.	3.5	26
15	An one-class classification support vector machine model by interval-valued training data. Knowledge-Based Systems, 2017, 120, 43-56.	4.0	26
16	A deep forest classifier with weights of class probability distribution subsets. Knowledge-Based Systems, 2019, 173, 15-27.	4.0	26
17	Imprecise Reliability of General Structures. Knowledge and Information Systems, 1999, 1, 459-480.	2.1	25
18	Extensions of belief functions and possibility distributions by using the imprecise Dirichlet model. Fuzzy Sets and Systems, 2005, 154, 413-431.	1.6	24

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19	A framework for imprecise robust one-class classification models. International Journal of Machine Learning and Cybernetics, 2014, 5, 379-393.	2.3	24
20	A robust weighted SVR-based software reliability growth model. Reliability Engineering and System Safety, 2018, 176, 93-101.	5.1	24
21	A new ranking procedure by incomplete pairwise comparisons using preference subsets. Intelligent Data Analysis, 2009, 13, 229-241.	0.4	22
22	Interval reliability of typical systems with partially known probabilities. European Journal of Operational Research, 2004, 153, 790-802.	3.5	21
23	Improving over-fitting in ensemble regression by imprecise probabilities. Information Sciences, 2015, 317, 315-328.	4.0	21
24	RISK ANALYSIS UNDER PARTIAL PRIOR INFORMATION AND NONMONOTONE UTILITY FUNCTIONS. International Journal of Information Technology and Decision Making, 2007, 06, 625-647.	2.3	20
25	Computing expectations with continuous p-boxes: Univariate case. International Journal of Approximate Reasoning, 2009, 50, 778-798.	1.9	20
26	Knowledge based fuzzy reliability assessment. Microelectronics Reliability, 1994, 34, 863-874.	0.9	19
27	A method to solve fuzzy reliability optimization problem. Microelectronics Reliability, 1995, 35, 171-181.	0.9	19
28	Optimal reliability allocation of redundant units and repair facilities by arbitrary failure and repair distributions. Microelectronics Reliability, 1995, 35, 1451-1460.	0.9	18
29	THE DS/AHP METHOD UNDER PARTIAL INFORMATION ABOUT CRITERIA AND ALTERNATIVES BY SEVERAL LEVELS OF CRITERIA. International Journal of Information Technology and Decision Making, 2012, 11, 307-326.	2.3	18
30	Stress-strength reliability models under incomplete information. International Journal of General Systems, 2002, 31, 549-568.	1.2	17
31	Imprecise reliability of cold standby systems. International Journal of Quality and Reliability Management, 2003, 20, 722-739.	1.3	17
32	The natural language explanation algorithms for the lung cancer computer-aided diagnosis system. Artificial Intelligence in Medicine, 2020, 108, 101952.	3.8	17
33	Cold standby systems with imperfect and noninstantaneous switch-over mechanism. Microelectronics Reliability, 1996, 36, 1425-1438.	0.9	16
34	Processing unreliable judgements with an imprecise hierarchical model. Risk, Decision and Policy, 2002, 7, 325-339.	0.1	16
35	Imprecise Second-Order Hierarchical Uncertainty Model. International Journal of Uncertainty, Fuzziness and Knowlege-Based Systems, 2003, 11, 301-317.	0.9	16
36	Detection of anomalous behavior in a robot system based on deep learning elements. Automatic Control and Computer Sciences, 2016, 50, 726-733.	0.4	16

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37	A robust algorithm for explaining unreliable machine learning survival models using the Kolmogorovâ€“Smirnov bounds. Neural Networks, 2020, 132, 1-18.	3.3	16
38	Imprecise weighted extensions of random forests for classification and regression. Applied Soft Computing Journal, 2020, 92, 106324.	4.1	16
39	Imprecise reliability for some new lifetime distribution classes. Journal of Statistical Planning and Inference, 2002, 105, 215-232.	0.4	15
40	Reliability models of m-out-of-n systems under incomplete information. Computers and Operations Research, 2004, 31, 1681-1702.	2.4	15
41	Computing System Reliability Given Interval-Valued Characteristics of the Components. Reliable Computing, 2005, 11, 19-34.	0.8	14
42	New Reliability Models Based on Imprecise Probabilities. Fuzzy Logic Systems Institute, 2000, , 110-139.	0.1	14
43	Prediction of deleterious mutations in coding regions of mammals with transfer learning. Evolutionary Applications, 2019, 12, 18-28.	1.5	13
44	A new method to compute reliability of repairable series systems by arbitrary distributions. Microelectronics Reliability, 1995, 35, 81-85.	0.9	12
45	The time-dependent availability of repairable m-out-of-n and cold standby systems by arbitrary distributions and repair facilities. Microelectronics Reliability, 1995, 35, 1377-1393.	0.9	12
46	A FUZZY SOFTWARE RELIABILITY MODEL WITH MULTIPLE-ERROR INTRODUCTION AND REMOVAL. International Journal of Reliability, Quality and Safety Engineering, 2002, 09, 215-227.	0.4	12
47	A new robust model of one-class classification by interval-valued training data using the triangular kernel. Neural Networks, 2015, 69, 99-110.	3.3	12
48	An imprecise deep forest for classification. Expert Systems With Applications, 2020, 141, 112978.	4.4	12
49	An uncertainty model of structural reliability with imprecise parameters of probability distributions. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2004, 84, 688-699.	0.9	11
50	Redundancy optimization by fuzzy reliability and cost of system components. Microelectronics Reliability, 1994, 34, 53-59.	0.9	10
51	A second-order uncertainty model for calculation of the interval system reliability. Reliability Engineering and System Safety, 2003, 79, 341-351.	5.1	10
52	A Siamese Autoencoder Preserving Distances for Anomaly Detection in Multi-robot Systems. , 2017, , .		10
53	Discriminative Metric Learning with Deep Forest. International Journal on Artificial Intelligence Tools, 2019, 28, 1950007.	0.7	10
54	Artïï¬cial intelligence in medicine: current state and main directions of development of the intellectual diagnostics. Diagnostic Radiology and Radiotherapy, 2020, 11, 9-17.	0.0	10

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55	Robust boosting classification models with local sets of probability distributions. Knowledge-Based Systems, 2014, 61, 59-75.	4.0	9
56	Siamese neural network for intelligent information security control in multi-robot systems. Automatic Control and Computer Sciences, 2017, 51, 881-887.	0.4	9
57	A new efficient algorithm for computing the imprecise reliability of monotone systems. Reliability Engineering and System Safety, 2004, 86, 179-190.	5.1	8
58	Constructing imprecise probability distributions. International Journal of General Systems, 2005, 34, 401-408.	1.2	8
59	Imprecise prior knowledge incorporating into one-class classification. Knowledge and Information Systems, 2014, 41, 53-76.	2.1	8
60	Uncertainty importance of system components by fuzzy and interval probability. Microelectronics Reliability, 1993, 33, 1357-1364.	0.9	7
61	Probabilities of judgments provided by unknown experts by using the imprecise Dirichlet model. Risk, Decision and Policy, 2004, 9, 371-389.	0.1	7
62	Load-share reliability models with the piecewise constant load. International Journal of Reliability and Safety, 2012, 6, 338.	0.2	7
63	A New Adaptive Weighted Deep Forest and Its Modifications. International Journal of Information Technology and Decision Making, 2020, 19, 963-986.	2.3	7
64	Counterfactual Explanation of Machine Learning Survival Models. Informatica, 2021, 32, 817-847.	1.5	7
65	SurvNAM: The machine learning survival model explanation. Neural Networks, 2022, 147, 81-102.	3.3	7
66	Uncertainty importance of multistate system components. Microelectronics Reliability, 1993, 33, 2021-2029.	0.9	6
67	Steady-state reliability of repairable systems by combined probability and possibility assumptions. Fuzzy Sets and Systems, 1998, 97, 193-202.	1.6	6
68	CAUTIOUS RELIABILITY ANALYSIS OF MULTI-STATE AND CONTINUUM-STATE SYSTEMS BASED ON THE IMPRECISE DIRICHLET MODEL. International Journal of Reliability, Quality and Safety Engineering, 2006, 13, 433-453.	0.4	6
69	Regression analysis using the imprecise Bayesian normal model. International Journal of Data Analysis Techniques and Strategies, 2010, 2, 356.	0.2	6
70	Combining of judgments in imprecise voting multi-criteria decision problems. International Journal of Applied Decision Sciences, 2012, 5, 199.	0.2	6
71	Fuzzy One-Class Classification Model Using Contamination Neighborhoods. Advances in Fuzzy Systems, 2012, 2012, 1-10.	0.6	6
72	Reliability analysis of load-sharing m-out-of-n systems with arbitrary load and different probability distributions of time to failure. International Journal of Reliability and Safety, 2015, 9, 21.	0.2	6

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73	Deep Forest as a framework for a new class of machine-learning models. National Science Review, 2019, 6, 186-187.	4.6	6
74	Reliability of systems by mixture forms of uncertainty. Microelectronics Reliability, 1997, 37, 779-783.	0.9	5
75	IMPRECISE SECOND-ORDER MODEL FOR A SYSTEM OF INDEPENDENT RANDOM VARIABLES. International Journal of Uncertainty, Fuzziness and Knowlege-Based Systems, 2005, 13, 177-193.	0.9	5
76	Ranking procedures by pairwise comparison using random sets and the imprecise Dirichlet model. Applied Mathematics and Computation, 2006, 183, 394-408.	1.4	5
77	A machine learning algorithm for classification under extremely scarce information. International Journal of Data Analysis Techniques and Strategies, 2012, 4, 115.	0.2	5
78	Fuzzy decision making using the imprecise Dirichlet model. International Journal of Mathematics in Operational Research, 2013, 5, 74.	0.1	5
79	The imprecise Dirichlet model as a basis for a new boosting classification algorithm. Neurocomputing, 2015, 151, 1374-1383.	3.5	5
80	CONDITIONAL PREVISIONS IN IMPRECISE RELIABILITY. , 2000, , .		5
81	Multi-attention multiple instance learning. Neural Computing and Applications, 2022, 34, 14029-14051.	3.2	5
82	The paradox of monotony of systems by fuzzy probability. Microelectronics Reliability, 1993, 33, 951-955.	0.9	4
83	A new method to compute reliability of repairable m-out-of-n systems by arbitrary distributions. Microelectronics Reliability, 1994, 34, 1877-1889.	0.9	4
84	Two-sided bounds of reliability for large systems. Microelectronics Reliability, 1995, 35, 841-845.	0.9	4
85	CAUTIOUS ANALYSIS OF PROJECT RISKS BY INTERVAL-VALUED INITIAL DATA. International Journal of Uncertainty, Fuzziness and Knowlege-Based Systems, 2006, 14, 663-685.	0.9	4
86	Robust novelty detection in the framework of a contamination neighbourhood. International Journal of Intelligent Information and Database Systems, 2013, 7, 205.	0.3	4
87	Classification With Support Vector Machines and Kolmogorovâ€“Smirnov Bounds. Journal of Statistical Theory and Practice, 2014, 8, 297-318.	0.3	4
88	A continuous extension of a load-share reliability model based on a condition of the residual lifetime conservation. European Journal of Industrial Engineering, 2014, 8, 349.	0.5	4
89	Interval SVM-Based Classification Algorithm Using the Uncertainty Trick. International Journal on Artificial Intelligence Tools, 2017, 26, 1750014.	0.7	4
90	The rules selection algorithm for network traffic of robot groups in intelligent transportation systems. , 2017, , .		4

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91	A Deep Forest for Transductive Transfer Learning by Using a Consensus Measure. Communications in Computer and Information Science, 2018, , 194-208.	0.4	4
92	An Explanation Method for Siamese Neural Networks. Smart Innovation, Systems and Technologies, 2021, , 219-230.	0.5	4
93	A Hierarchical Uncertainty Model under Essentially Incomplete Information. Advances in Intelligent and Soft Computing, 2002, , 156-163.	0.2	4
94	Imprecise Calculation with the Qualitative Information about Probability Distributions. Advances in Intelligent and Soft Computing, 2002, , 164-169.	0.2	4
95	Reliability analysis of systems with fuzzy times of structure modifications. Microelectronics Reliability, 1994, 34, 1745-1754.	0.9	3
96	Reliability of repairable systems with periodic modifications. Microelectronics Reliability, 1996, 36, 27-35.	0.9	3
97	Reliability growth in the probability and possibility contexts. Microelectronics Reliability, 1996, 36, 1155-1166.	0.9	3
98	Analysis of computer integrated manufacturing systems by fuzzy human operator behaviour. Journal of Quality in Maintenance Engineering, 1997, 3, 189-198.	1.0	3
99	Reducing the Pareto optimal set in MCDM using imprecise probabilities. International Journal of Operational Research, 2014, 19, 21.	0.1	3
100	Reliability of repairable reserved systems with failure aftereffect. Automation and Remote Control, 2017, 78, 113-124.	0.4	3
101	An anomalous behavior detection of a robot system by using a hierarchical Siamese neural network. , 2017, , .		3
102	A Robust Interval Autoencoder. , 2017, , .		3
103	A Generalized Stacking for Implementing Ensembles of Gradient Boosting Machines. Studies in Systems, Decision and Control, 2021, , 3-16.	0.8	3
104	Combining an Autoencoder and a Variational Autoencoder for Explaining the Machine Learning Model Predictions. , 2021, , .		3
105	A new heuristic method redundancy optimization in a consecutive-k-out-of-n:F system by fuzzy probability. Microelectronics Reliability, 1993, 33, 2197-2205.	0.9	2
106	Reliability of composite software by different forms of uncertainty. Microelectronics Reliability, 1996, 36, 1459-1473.	0.9	2
107	Reliability and optimization of systems with periodic modifications in the probability and possibility contexts. Microelectronics Reliability, 1997, 37, 801-808.	0.9	2
108	Comments on the paper â€œA behavioural model for vague probability assessmentsâ€•by Gert de Cooman. Fuzzy Sets and Systems, 2005, 154, 367-369.	1.6	2

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109	A HIERARCHICAL MODEL OF RELIABILITY BY IMPRECISE PARAMETERS OF LIFETIME DISTRIBUTIONS. International Journal of Reliability, Quality and Safety Engineering, 2005, 12, 167-187.	0.4	2
110	New interval Bayesian models for software reliability based on non-homogeneous Poisson processes. Automation and Remote Control, 2010, 71, 935-944.	0.4	2
111	A classification model based on incomplete information on features in the form of their average values. Scientific and Technical Information Processing, 2012, 39, 336-344.	0.3	2
112	AN IMPRECISE BOOSTING-LIKE APPROACH TO CLASSIFICATION. International Journal of Pattern Recognition and Artificial Intelligence, 2013, 27, 1351005.	0.7	2
113	Robust transfer learning in multi-robot systems by using sparse autoencoder. , 2016, , .		2
114	A Deep Forest Improvement by Using Weighted Schemes. , 2019, , .		2
115	TIMING ANALYSIS OF A FAULT-TOLERANT TECHNIQUE SUBJECT TO HARDWARE FAILURES. International Journal of Reliability, Quality and Safety Engineering, 2000, 07, 97-111.	0.4	1
116	Second-order uncertainty calculations by using the imprecise Dirichlet model. Intelligent Data Analysis, 2007, 11, 225-244.	0.4	1
117	Reliability and risk. Wiley Series in Probability and Statistics, 2014, , 305-317.	0.0	1
118	Imprecise inference for warranty contract analysis. Reliability Engineering and System Safety, 2015, 138, 31-39.	5.1	1
119	An inverse problem of the load-sharing system reliability analysis: Constructing the load function. Proceedings of the Institution of Mechanical Engineers, Part O: Journal of Risk and Reliability, 2015, 229, 16-25.	0.6	1
120	Estimation of Personalized Heterogeneous Treatment Effects Using Concatenation and Augmentation of Feature Vectors. International Journal on Artificial Intelligence Tools, 2020, 29, 2050005.	0.7	1
121	A new boosting-based software reliability growth model. Communications in Statistics - Theory and Methods, 2021, 50, 6167-6194.	0.6	1
122	The Deep Survival Forest and Elastic-Net-Cox Cascade Models as Extensions of the Deep Forest. Smart Innovation, Systems and Technologies, 2021, , 205-217.	0.5	1
123	Uncertainty Interpretation of the Machine Learning Survival Model Predictions. IEEE Access, 2021, 9, 120158-120175.	2.6	1
124	An Explanation Method for Black-Box Machine Learning Survival Models Using the Chebyshev Distance. Communications in Computer and Information Science, 2020, , 62-74.	0.4	1
125	An Extension of the Neural Additive Model for Uncertainty Explanation of Machine Learning Survival Models. Studies in Systems, Decision and Control, 2022, , 3-13.	0.8	1
126	Safety analysis of a multi-phased control system. Microelectronics Reliability, 1997, 37, 243-254.	0.9	0

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127	A Pessimistic Approach for Solving a Multi-criteria Decision Making. , 2012, , .		0
128	Imprecise Imputation as a Tool for Solving Classification Problems with Mean Values of Unobserved Features. Advances in Artificial Intelligence, 2013, 2013, 1-12.	0.9	0
129	A Load-Share Reliability Model under the Changeable Piecewise Smooth Load. Journal of Quality and Reliability Engineering, 2014, 2014, 1-11.	1.3	0
130	Robust Classifiers Using Imprecise Probability Models and Importance of Classes. International Journal on Artificial Intelligence Tools, 2015, 24, 1550008.	0.7	0
131	A combined automated diagnostic system for segmentation and detection of lung cancer nodules. Robotics and Technical Cybernetics, 2019, 7, 145-153.	0.1	0
132	Three-channel intelligent neoplasm classification system for the diagnosis of lung cancer. Robotics and Technical Cybernetics, 2019, 7, 196-207.	0.1	0
133	INTERPRETATION OF THE RESULTS OF SUPERCOMPUTER SIMULATION USING MACHINE LEARNING METHODS. MatematiÄeskie Metody V TehnologiÃ¢h I Tehnike, 2022, , 117-127.	0.0	0