Lev V Utkin

List of Publications by Year
in descending order

133 papers	1,581 citations	331259 21 h-index	433756 31 g-index
136 all docs	136 docs citations	136 times ranked	949 citing authors

#	Article	IF	Citations
1	SurvNAM: The machine learning survival model explanation. Neural Networks, 2022, 147, 81-102.	3.3	7
2	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
3	Multi-attention multiple instance learning. Neural Computing and Applications, 2022, 34, 14029-14051.	3.2	5
4	INTERPRETATION OF THE RESULTS OF SUPERCOMPUTER SIMULATION USING MACHINE LEARNING METHODS. MatematiÄeskie Metody V TehnologiÃ¢h I Tehnike, 2022, , 117-127.	0.0	0
5	A new boosting-based software reliability growth model. Communications in Statistics - Theory and Methods, 2021, 50, 6167-6194.	0.6	1
6	A Generalized Stacking for Implementing Ensembles of Gradient Boosting Machines. Studies in Systems, Decision and Control, 2021, , 3-16.	0.8	3
7	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
8	An Explanation Method for Siamese Neural Networks. Smart Innovation, Systems and Technologies, 2021, , 219-230.	0.5	4
9	Interpretable machine learning with an ensemble of gradient boosting machines. Knowledge-Based Systems, 2021, 222, 106993.	4.0	60
10	Combining an Autoencoder and a Variational Autoencoder for Explaining the Machine Learning Model Predictions. , 2021, , .		3
11	Uncertainty Interpretation of the Machine Learning Survival Model Predictions. IEEE Access, 2021, 9, 120158-120175.	2.6	1
12	Counterfactual Explanation of Machine Learning Survival Models. Informatica, 2021, 32, 817-847.	1.5	7
13	An imprecise deep forest for classification. Expert Systems With Applications, 2020, 141, 112978.	4.4	12
14	The natural language explanation algorithms for the lung cancer computer-aided diagnosis system. Artificial Intelligence in Medicine, 2020, 108, 101952.	3.8	17
15	SurvLIME: A method for explaining machine learning survival models. Knowledge-Based Systems, 2020, 203, 106164.	4.0	44
16	A robust algorithm for explaining unreliable machine learning survival models using the Kolmogorovâ€"Smirnov bounds. Neural Networks, 2020, 132, 1-18.	3.3	16
17	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
18	A New Adaptive Weighted Deep Forest and Its Modifications. International Journal of Information Technology and Decision Making, 2020, 19, 963-986.	2.3	7

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19	Imprecise weighted extensions of random forests for classification and regression. Applied Soft Computing Journal, 2020, 92, 106324.	4.1	16
20	Artïﬁcial 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
21	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
22	A Deep Forest Improvement by Using Weighted Schemes. , 2019, , .		2
23	Discriminative Metric Learning with Deep Forest. International Journal on Artificial Intelligence Tools, 2019, 28, 1950007.	0.7	10
24	A weighted random survival forest. Knowledge-Based Systems, 2019, 177, 136-144.	4.0	29
25	A deep forest classifier with weights of class probability distribution subsets. Knowledge-Based Systems, 2019, 173, 15-27.	4.0	26
26	Deep Forest as a framework for a new class of machine-learning models. National Science Review, 2019, 6, 186-187.	4.6	6
27	An imprecise extension of SVM-based machine learning models. Neurocomputing, 2019, 331, 18-32.	3.5	47
28	Prediction of deleterious mutations in coding regions of mammals with transfer learning. Evolutionary Applications, 2019, 12, 18-28.	1.5	13
29	A combined automated diagnostic system for segmentation and detection of lung cancer nodules. Robotics and Technical Cybernetics, 2019, 7, 145-153.	0.1	0
30	Three-channel intelligent neoplasm classification system for the diagnosis of lung cancer. Robotics and Technical Cybernetics, 2019, 7, 196-207.	0.1	0
31	A robust weighted SVR-based software reliability growth model. Reliability Engineering and System Safety, 2018, 176, 93-101.	5.1	24
32	A Deep Forest for Transductive Transfer Learning by Using a Consensus Measure. Communications in Computer and Information Science, 2018, , 194-208.	0.4	4
33	A Siamese Deep Forest. Knowledge-Based Systems, 2018, 139, 13-22.	4.0	42
34	An one-class classification support vector machine model by interval-valued training data. Knowledge-Based Systems, 2017, 120, 43-56.	4.0	26
35	Reliability of repairable reserved systems with failure aftereffect. Automation and Remote Control, 2017, 78, 113-124.	0.4	3
36	Interval SVM-Based Classification Algorithm Using the Uncertainty Trick. International Journal on Artificial Intelligence Tools, 2017, 26, 1750014.	0.7	4

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37	The rules selection algorithm for network traffic of robot groups in intelligent transportation systems. , 2017, , .		4
38	An anomalous behavior detection of a robot system by using a hierarchical Siamese neural network. , 2017, , .		3
39	A Siamese Autoencoder Preserving Distances for Anomaly Detection in Multi-robot Systems. , 2017, , .		10
40	A Robust Interval Autoencoder. , 2017, , .		3
41	Siamese neural network for intelligent information security control in multi-robot systems. Automatic Control and Computer Sciences, 2017, 51, 881-887.	0.4	9
42	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
43	Binary classification SVM-based algorithms with interval-valued training data using triangular and Epanechnikov kernels. Neural Networks, 2016, 80, 53-66.	3.3	31
44	Robust transfer learning in multi-robot systems by using sparse autoencoder. , 2016, , .		2
45	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
46	Imprecise inference for warranty contract analysis. Reliability Engineering and System Safety, 2015, 138, 31-39.	5.1	1
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	Robust Classifiers Using Imprecise Probability Models and Importance of Classes. International Journal on Artificial Intelligence Tools, 2015, 24, 1550008.	0.7	0
49	Improving over-fitting in ensemble regression by imprecise probabilities. Information Sciences, 2015, 317, 315-328.	4.0	21
50	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
51	The imprecise Dirichlet model as a basis for a new boosting classification algorithm. Neurocomputing, 2015, 151, 1374-1383.	3.5	5
52	A Load-Share Reliability Model under the Changeable Piecewise Smooth Load. Journal of Quality and Reliability Engineering, 2014, 2014, 1-11.	1.3	0
53	Reliability and risk. Wiley Series in Probability and Statistics, 2014, , 305-317.	0.0	1
54	A framework for imprecise robust one-class classification models. International Journal of Machine Learning and Cybernetics, 2014, 5, 379-393.	2.3	24

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55	Imprecise prior knowledge incorporating into one-class classification. Knowledge and Information Systems, 2014, 41, 53-76.	2.1	8
56	Robust boosting classification models with local sets of probability distributions. Knowledge-Based Systems, 2014, 61, 59-75.	4.0	9
57	Classification With Support Vector Machines and Kolmogorov–Smirnov Bounds. Journal of Statistical Theory and Practice, 2014, 8, 297-318.	0.3	4
58	Reducing the Pareto optimal set in MCDM using imprecise probabilities. International Journal of Operational Research, 2014, 19, 21.	0.1	3
59	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
60	AN IMPRECISE BOOSTING-LIKE APPROACH TO CLASSIFICATION. International Journal of Pattern Recognition and Artificial Intelligence, 2013, 27, 1351005.	0.7	2
61	Robust novelty detection in the framework of a contamination neighbourhood. International Journal of Intelligent Information and Database Systems, 2013, 7, 205.	0.3	4
62	Fuzzy decision making using the imprecise Dirichlet model. International Journal of Mathematics in Operational Research, 2013, 5, 74.	0.1	5
63	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
64	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
65	Load-share reliability models with the piecewise constant load. International Journal of Reliability and Safety, 2012, 6, 338.	0.2	7
66	Combining of judgments in imprecise voting multi-criteria decision problems. International Journal of Applied Decision Sciences, 2012, 5, 199.	0.2	6
67	A machine learning algorithm for classification under extremely scarce information. International Journal of Data Analysis Techniques and Strategies, 2012, 4, 115.	0.2	5
68	A Pessimistic Approach for Solving a Multi-criteria Decision Making. , 2012, , .		0
69	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
70	Fuzzy One-Class Classification Model Using Contamination Neighborhoods. Advances in Fuzzy Systems, 2012, 2012, 1-10.	0.6	6
71	Regression analysis using the imprecise Bayesian normal model. International Journal of Data Analysis Techniques and Strategies, 2010, 2, 356.	0.2	6
72	On new cautious structural reliability models in the framework of imprecise probabilities. Structural Safety, 2010, 32, 411-416.	2.8	27

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73	New interval Bayesian models for software reliability based on non-homogeneous Poisson processes. Automation and Remote Control, 2010, 71, 935-944.	0.4	2
74	A new ranking procedure by incomplete pairwise comparisons using preference subsets. Intelligent Data Analysis, 2009, 13, 229-241.	0.4	22
75	Computing expectations with continuous p-boxes: Univariate case. International Journal of Approximate Reasoning, 2009, 50, 778-798.	1.9	20
76	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
77	Second-order uncertainty calculations by using the imprecise Dirichlet model. Intelligent Data Analysis, 2007, 11, 225-244.	0.4	1
78	Decision making under incomplete data using the imprecise Dirichlet model. International Journal of Approximate Reasoning, 2007, 44, 322-338.	1.9	31
79	Imprecise reliability: An introductory overview. Studies in Computational Intelligence, 2007, , 261-306.	0.7	49
80	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
81	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
82	Ranking procedures by pairwise comparison using random sets and the imprecise Dirichlet model. Applied Mathematics and Computation, 2006, 183, 394-408.	1.4	5
83	CAUTIOUS ANALYSIS OF PROJECT RISKS BY INTERVAL-VALUED INITIAL DATA. International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems, 2006, 14, 663-685.	0.9	4
84	Extensions of belief functions and possibility distributions by using the imprecise Dirichlet model. Fuzzy Sets and Systems, 2005, 154, 413-431.	1.6	24
85	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
86	Computing System Reliability Given Interval-Valued Characteristics of the Components. Reliable Computing, 2005, 11, 19-34.	0.8	14
87	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
88	IMPRECISE SECOND-ORDER MODEL FOR A SYSTEM OF INDEPENDENT RANDOM VARIABLES. International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems, 2005, 13, 177-193.	0.9	5
89	Constructing imprecise probability distributions. International Journal of General Systems, 2005, 34, 401-408.	1.2	8
90	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

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91	Interval reliability of typical systems with partially known probabilities. European Journal of Operational Research, 2004, 153, 790-802.	3.5	21
92	Reliability models of m-out-of-n systems under incomplete information. Computers and Operations Research, 2004, 31, 1681-1702.	2.4	15
93	A new efficient algorithm for computing the imprecise reliability of monotone systems. Reliability Engineering and System Safety, 2004, 86, 179-190.	5.1	8
94	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
95	Probabilities of judgments provided by unknown experts by using the imprecise Dirichlet model. Risk, Decision and Policy, 2004, 9, 371-389.	0.1	7
96	A second-order uncertainty model for calculation of the interval system reliability. Reliability Engineering and System Safety, 2003, 79, 341-351.	5.1	10
97	Imprecise Second-Order Hierarchical Uncertainty Model. International Journal of Uncertainty, Fuzziness and Knowlege-Based Systems, 2003, 11, 301-317.	0.9	16
98	Imprecise reliability of cold standby systems. International Journal of Quality and Reliability Management, 2003, 20, 722-739.	1.3	17
99	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
100	Processing unreliable judgements with an imprecise hierarchical model. Risk, Decision and Policy, 2002, 7, 325-339.	0.1	16
101	Stress-strength reliability models under incomplete information. International Journal of General Systems, 2002, 31, 549-568.	1.2	17
102	Imprecise reliability for some new lifetime distribution classes. Journal of Statistical Planning and Inference, 2002, 105, 215-232.	0.4	15
103	Interval-Valued Finite Markov Chains. Reliable Computing, 2002, 8, 97-113.	0.8	100
104	A Hierarchical Uncertainty Model under Essentially Incomplete Information. Advances in Intelligent and Soft Computing, 2002, , 156-163.	0.2	4
105	Imprecise Calculation with the Qualitative Information about Probability Distributions. Advances in Intelligent and Soft Computing, 2002, , 164-169.	0.2	4
106	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
107	New Reliability Models Based on Imprecise Probabilities. Fuzzy Logic Systems Institute, 2000, , 110-139.	0.1	14
108	CONDITIONAL PREVISIONS IN IMPRECISE RELIABILITY. , 2000, , .		5

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109	Imprecise Reliability of General Structures. Knowledge and Information Systems, 1999, 1, 459-480.	2.1	25
110	Steady-state reliability of repairable systems by combined probability and possibility assumptions. Fuzzy Sets and Systems, 1998, 97, 193-202.	1.6	6
111	Analysis of computer integrated manufacturing systems by fuzzy human operator behaviour. Journal of Quality in Maintenance Engineering, 1997, 3, 189-198.	1.0	3
112	Reliability of systems by mixture forms of uncertainty. Microelectronics Reliability, 1997, 37, 779-783.	0.9	5
113	Safety analysis of a multi-phased control system. Microelectronics Reliability, 1997, 37, 243-254.	0.9	0
114	Reliability and optimization of systems with periodic modifications in the probability and possibility contexts. Microelectronics Reliability, 1997, 37, 801-808.	0.9	2
115	A general formal approach for fuzzy reliability analysis in the possibility context. Fuzzy Sets and Systems, 1996, 83, 203-213.	1.6	77
116	Reliability of repairable systems with periodic modifications. Microelectronics Reliability, 1996, 36, 27-35.	0.9	3
117	Reliability growth in the probability and possibility contexts. Microelectronics Reliability, 1996, 36, 1155-1166.	0.9	3
118	Reliability of composite software by different forms of uncertainty. Microelectronics Reliability, 1996, 36, 1459-1473.	0.9	2
119	Cold standby systems with imperfect and noninstantaneous switch-over mechanism. Microelectronics Reliability, 1996, 36, 1425-1438.	0.9	16
120	A new method to compute reliability of repairable series systems by arbitrary distributions. Microelectronics Reliability, 1995, 35, 81-85.	0.9	12
121	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
122	A method to solve fuzzy reliability optimization problem. Microelectronics Reliability, 1995, 35, 171-181.	0.9	19
123	Optimal reliability allocation of redundant units and repair facilities by arbitrary failure and repair distributions. Microelectronics Reliability, 1995, 35, 1451-1460.	0.9	18
124	Two-sided bounds of reliability for large systems. Microelectronics Reliability, 1995, 35, 841-845.	0.9	4
125	Knowledge based fuzzy reliability assessment. Microelectronics Reliability, 1994, 34, 863-874.	0.9	19
126	Reliability analysis of systems with fuzzy times of structure modifications. Microelectronics Reliability, 1994, 34, 1745-1754.	0.9	3

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127	Fuzzy reliability of repairable systems in the possibility context. Microelectronics Reliability, 1994, 34, 1865-1876.	0.9	39
128	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
129	Redundancy optimization by fuzzy reliability and cost of system components. Microelectronics Reliability, 1994, 34, 53-59.	0.9	10
130	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
131	Uncertainty importance of system components by fuzzy and interval probability. Microelectronics Reliability, 1993, 33, 1357-1364.	0.9	7
132	The paradox of monotony of systems by fuzzy probability. Microelectronics Reliability, 1993, 33, 951-955.	0.9	4
133	Uncertainty importance of multistate system components. Microelectronics Reliability, 1993, 33, 2021-2029.	0.9	6