

Radim Bělohávek

List of Publications by Year in descending order

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115
papers

3,407
citations

218381

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197535

49
g-index

119
all docs

119
docs citations

119
times ranked

724
citing authors

#	ARTICLE	IF	CITATIONS
1	Typicality: A formal concept analysis account. International Journal of Approximate Reasoning, 2022, 142, 349-369.	1.9	5
2	The 8M Algorithm from Today's Perspective. ACM Transactions on Knowledge Discovery From Data, 2021, 15, 1-22.	2.5	0
3	Basic level of concepts and formal concept analysis 2: examination of existing basic level metrics. International Journal of General Systems, 2020, 49, 707-723.	1.2	3
4	Basic level of concepts in formal concept analysis 1: formalization and utilization. International Journal of General Systems, 2020, 49, 689-706.	1.2	5
5	A reduction theorem to compute fixpoints of fuzzy closure operators. Fuzzy Sets and Systems, 2019, 369, 132-144.	1.6	4
6	Goguen's contributions to fuzzy logic in retrospect. International Journal of General Systems, 2019, 48, 811-824.	1.2	1
7	Factorizing Boolean matrices using formal concepts and iterative usage of essential entries. Information Sciences, 2019, 489, 37-49.	4.0	12
8	The Discrete Basis Problem and ASSO Algorithm for Fuzzy Attributes. IEEE Transactions on Fuzzy Systems, 2019, 27, 1417-1427.	6.5	2
9	Factorization of matrices with grades via essential entries. Fuzzy Sets and Systems, 2019, 360, 97-116.	1.6	7
10	Handling noise in Boolean matrix factorization. International Journal of Approximate Reasoning, 2018, 96, 78-94.	1.9	3
11	A calculus for containment of fuzzy attributes. Soft Computing, 2018, 22, 6299-6310.	2.1	1
12	Relational similarity-based model of data part 2: dependencies in data. International Journal of General Systems, 2018, 47, 1-50.	1.2	4
13	Toward quality assessment of Boolean matrix factorizations. Information Sciences, 2018, 459, 71-85.	4.0	18
14	On Zadeh's problem in probability theory. International Journal of General Systems, 2018, 47, 648-654.	1.2	1
15	A new algorithm for Boolean matrix factorization which admits overcovering. Discrete Applied Mathematics, 2018, 249, 36-52.	0.5	11
16	Attribute dependencies for data with grades $\llbracket \sup \rrbracket$. International Journal of General Systems, 2017, 46, 66-92.	1.2	22
17	Systems, uncertainty, and information: A legacy of George J. Klir. International Journal of General Systems, 2017, 46, 792-823.	1.2	0
18	Relational similarity-based model of data part 1: foundations and query systems. International Journal of General Systems, 2017, 46, 671-751.	1.2	4

#	ARTICLE	IF	CITATIONS
19	Fuzzy Logic and Mathematics. , 2017, , .		142
20	How to assess quality of BMF algorithms?. , 2016, , .		1
21	Attribute dependencies for data with grades $\langle \sup \rangle$. International Journal of General Systems, 2016, 45, 864-888.	1.2	19
22	Automated prover for attribute dependencies in data with grades. International Journal of Approximate Reasoning, 2016, 70, 51-67.	1.9	17
23	Factorization of matrices with grades. Fuzzy Sets and Systems, 2016, 292, 85-97.	1.6	6
24	Hardness of Solving Relational Equations. IEEE Transactions on Fuzzy Systems, 2015, 23, 2435-2438.	6.5	28
25	A logic of graded attributes. Archive for Mathematical Logic, 2015, 54, 785-802.	0.2	7
26	From-below approximations in Boolean matrix factorization: Geometry and new algorithm. Journal of Computer and System Sciences, 2015, 81, 1678-1697.	0.9	51
27	Pavelka-style fuzzy logic in retrospect and prospect. Fuzzy Sets and Systems, 2015, 281, 61-72.	1.6	10
28	Dimensionality Reduction in Boolean Data: Comparison of Four BMF Methods. Lecture Notes in Computer Science, 2015, , 118-133.	1.0	2
29	Computing minimal sets of descriptive conditions for binary data. International Journal of General Systems, 2014, 43, 521-534.	1.2	0
30	Factor analysis of ordinal data via decomposition of matrices with grades. Annals of Mathematics and Artificial Intelligence, 2014, 72, 23-44.	0.9	10
31	Granularity of attributes in formal concept analysis. Information Sciences, 2014, 260, 149-170.	4.0	43
32	Boolean factors as a means of clustering of interestingness measures of association rules. Annals of Mathematics and Artificial Intelligence, 2014, 70, 151-184.	0.9	13
33	Impact of Boolean factorization as preprocessing methods for classification of Boolean data. Annals of Mathematics and Artificial Intelligence, 2014, 72, 3-22.	0.9	15
34	Triadic fuzzy Galois connections as ordinary connections. Fuzzy Sets and Systems, 2014, 249, 83-99.	1.6	11
35	Optimal Factorization of Three-Way Binary Data Using Triadic Concepts. Order, 2013, 30, 437-454.	0.3	29
36	Formal concept analysis with background knowledge: a case study in paleobiological taxonomy of belemnites. International Journal of General Systems, 2013, 42, 426-440.	1.2	2

#	ARTICLE	IF	CITATIONS
37	Toward reduction of formal fuzzy context. , 2013, , .		0
38	Relational algebra for multi-ranked similarity-based databases. , 2013, , .		0
39	Ordinally equivalent data: A measurement-theoretic look at formal concept analysis of fuzzy attributes. International Journal of Approximate Reasoning, 2013, 54, 1496-1506.	1.9	10
40	Closure-based constraints in formal concept analysis. Discrete Applied Mathematics, 2013, 161, 1894-1911.	0.5	14
41	Beyond Boolean Matrix Decompositions: Toward Factor Analysis and Dimensionality Reduction of Ordinal Data. , 2013, , .		9
42	Optimal decompositions of matrices with entries from residuated lattices. Journal of Logic and Computation, 2012, 22, 1405-1425.	0.5	31
43	Triadic fuzzy Galois connections as ordinary connections. , 2012, , .		9
44	Formal concept analysis and linguistic hedges. International Journal of General Systems, 2012, 41, 503-532.	1.2	53
45	Triadic concept lattices of data with graded attributes. International Journal of General Systems, 2012, 41, 93-108.	1.2	16
46	Bivalent and other solutions of fuzzy relational equations via linguistic hedges. Fuzzy Sets and Systems, 2012, 187, 103-112.	1.6	16
47	Sup-t-norm and inf-residuum are one type of relational product: Unifying framework and consequences. Fuzzy Sets and Systems, 2012, 197, 45-58.	1.6	59
48	Simple Proof of Basic Theorem for General Concept Lattices by Cartesian Representation. Lecture Notes in Computer Science, 2012, , 294-305.	1.0	0
49	Reducing sup-t-norm and inf-residuum to a single type of fuzzy relational equations. , 2011, , .		1
50	Sup-t-norm and inf-residuum are a single type of relational equations. International Journal of General Systems, 2011, 40, 599-609.	1.2	21
51	Evaluation of IPAQ questionnaires supported by formal concept analysis. Information Sciences, 2011, 181, 1774-1786.	4.0	33
52	Codd's Relational Model from the Point of View of Fuzzy Logic. Journal of Logic and Computation, 2011, 21, 851-862.	0.5	16
53	What is a Fuzzy Concept Lattice? II. Lecture Notes in Computer Science, 2011, , 19-26.	1.0	20
54	Optimal decompositions of matrices with grades into binary and graded matrices. Annals of Mathematics and Artificial Intelligence, 2010, 59, 151-167.	0.9	8

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55	Preface to special issue on concept lattice and their applications 2008. Annals of Mathematics and Artificial Intelligence, 2010, 59, 149-150.	0.9	0
56	Residuated Lattices of Size \aleph_0 . Order, 2010, 27, 147-161.	0.3	15
57	Discovery of optimal factors in binary data via a novel method of matrix decomposition. Journal of Computer and System Sciences, 2010, 76, 3-20.	0.9	185
58	Computing the Lattice of All Fixpoints of a Fuzzy Closure Operator. IEEE Transactions on Fuzzy Systems, 2010, 18, 546-557.	6.5	67
59	Triadic Concept Analysis of Data with Fuzzy Attributes. , 2010, , .		6
60	Optimal Factorization of Three-Way Binary Data. , 2010, , .		5
61	Inducing decision trees via concept lattices1. International Journal of General Systems, 2009, 38, 455-467.	1.2	33
62	Optimal triangular decompositions of matrices with entries from residuated lattices. International Journal of Approximate Reasoning, 2009, 50, 1250-1258.	1.9	20
63	Concepts and fuzzy sets: Misunderstandings, misconceptions, and oversights. International Journal of Approximate Reasoning, 2009, 51, 23-34.	1.9	22
64	Formal Concept Analysis With Background Knowledge: Attribute Priorities. IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews, 2009, 39, 399-409.	3.3	60
65	Factor Analysis of Incidence Data via Novel Decomposition of Matrices. Lecture Notes in Computer Science, 2009, , 83-97.	1.0	20
66	Optimal decompositions of matrices with grades. , 2008, , .		8
67	FAST FACTORIZATION BY SIMILARITY OF FUZZY CONCEPT LATTICES WITH HEDGES. International Journal of Foundations of Computer Science, 2008, 19, 255-269.	0.8	13
68	BASIC ALGORITHM FOR ATTRIBUTE IMPLICATIONS AND FUNCTIONAL DEPENDENCIES IN GRADED SETTING. International Journal of Foundations of Computer Science, 2008, 19, 297-317.	0.8	8
69	Compositions of fuzzy relations with hedges. , 2008, , .		2
70	Isotone Galois connections and concept lattices with hedges. , 2008, , .		4
71	Fuzzy control of neuromuscular block during general anesthesiaâ€”system design, development and implementation. International Journal of General Systems, 2007, 36, 733-743.	1.2	3
72	Approximating Infinite Solution Sets by Discretization of the Scales of Truth Degrees. , 2007, , .		0

#	ARTICLE	IF	CITATIONS
73	Relational Factor Analysis with o-Matrix Decomposition. , 2007, , .		1
74	Do exact shapes of fuzzy sets matter?. International Journal of General Systems, 2007, 36, 527-555.	1.2	9
75	Scales behind computational intelligence: exploring properties of finite lattices. , 2007, , .		2
76	On Elkan's theorems: Clarifying their meaning via simple proofs. International Journal of Intelligent Systems, 2007, 22, 203-207.	3.3	4
77	Fast factorization by similarity in formal concept analysis of data with fuzzy attributes. Journal of Computer and System Sciences, 2007, 73, 1012-1022.	0.9	46
78	Fuzzy Concept Lattices Constrained by Hedges. Journal of Advanced Computational Intelligence and Intelligent Informatics, 2007, 11, 536-545.	0.5	27
79	Codd's Relational Model of Data and Fuzzy Logic: Comparisons, Observations, and Some New Results. , 2006, , .		7
80	Reducing the Size of If-Then Rules Generated from Data Tables with Graded Attributes. , 2006, , .		0
81	Algebras with fuzzy equalities. Fuzzy Sets and Systems, 2006, 157, 161-201.	1.6	39
82	Fuzzy Horn logic I. Archive for Mathematical Logic, 2006, 45, 3-51.	0.2	27
83	Fuzzy Horn logic II. Archive for Mathematical Logic, 2006, 45, 149-177.	0.2	20
84	Fuzzy attribute logic over complete residuated lattices. Journal of Experimental and Theoretical Artificial Intelligence, 2006, 18, 471-480.	1.8	23
85	Similarity issues in attribute implications from data with fuzzy attributes. , 2006, , .		8
86	Relational Model of Data over Domains with Similarities: An Extension for Similarity Queries and Knowledge Extraction. , 2006, , .		9
87	Formal Concept Analysis Constrained by Attribute-Dependency Formulas. Lecture Notes in Computer Science, 2005, , 176-191.	1.0	24
88	Fuzzy Closure Operators with Truth Stressers. Logic Journal of the IGPL, 2005, 13, 503-513.	1.3	38
89	Fuzzy interior operators. International Journal of General Systems, 2004, 33, 415-430.	1.2	26
90	Concept Equations. Journal of Logic and Computation, 2004, 14, 395-403.	0.5	6

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91	Lattice-type fuzzy order is uniquely given by its 1-cut: proof and consequences. Fuzzy Sets and Systems, 2004, 143, 447-458.	1.6	16
92	Concept lattices and order in fuzzy logic. Annals of Pure and Applied Logic, 2004, 128, 277-298.	0.3	376
93	Formal concept analysis with hierarchically ordered attributes. International Journal of General Systems, 2004, 33, 383-394.	1.2	11
94	Some Properties of Residuated Lattices. Czechoslovak Mathematical Journal, 2003, 53, 161-171.	0.3	43
95	Birkhoff variety theorem and fuzzy logic. Archive for Mathematical Logic, 2003, 42, 781-790.	0.2	17
96	Logical Precision in Concept Lattices. Journal of Logic and Computation, 2002, 12, 137-148.	0.5	18
97	On the capability of fuzzy set theory to represent concepts. International Journal of General Systems, 2002, 31, 569-585.	1.2	17
98	Fuzzy Relational Systems. , 2002, , .		457
99	Fuzzy equational logic. Archive for Mathematical Logic, 2002, 41, 83-90.	0.2	22
100	Fuzzy closure operators II: induced relations, representation, and examples. Soft Computing, 2002, 7, 53-64.	2.1	44
101	Learning rule base in linguistic expert systems. Soft Computing, 2002, 7, 79-88.	2.1	27
102	Fuzzy Closure Operators. Journal of Mathematical Analysis and Applications, 2001, 262, 473-489.	0.5	144
103	Lattices of Fixed Points of Fuzzy Galois Connections. Mathematical Logic Quarterly, 2001, 47, 111-116.	0.2	106
104	A Note on the Extension Principle. Journal of Mathematical Analysis and Applications, 2000, 248, 678-682.	0.5	12
105	Representation of Concept Lattices by Bidirectional Associative Memories. Neural Computation, 2000, 12, 2279-2290.	1.3	14
106	Similarity relations in concept lattices. Journal of Logic and Computation, 2000, 10, 823-845.	0.5	101
107	Fuzzy Galois Connections. Mathematical Logic Quarterly, 1999, 45, 497-504.	0.2	249
108	A polynomial characterization of congruence classes. Algebra Universalis, 1997, 37, 235-242.	0.2	3

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109	Implications from data with fuzzy attributes vs. scaled binary attributes. , 0, , .		5
110	Fuzzy Equational Logic. , 0, , 139-170.		27
111	Formal concept analysis over attributes with levels of granularity. , 0, , .		7
112	Reducing the Size of Fuzzy Concept Lattices by Hedges. , 0, , .		57
113	Computing non-redundant bases of if-then rules from data tables with graded attributes. , 0, , .		4
114	Dense rectangles in object-attribute data. , 0, , .		2
115	Impact of fuzzy logic: a bibliometric view. International Journal of General Systems, 0, , 1-11.	1.2	0