Jan J Vanthienen

List of Publications by Year in descending order

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93792 75989 6,992 176 39 78 citations g-index h-index papers 189 189 189 4889 docs citations times ranked citing authors all docs

#	Article	IF	Citations
1	Digital transformation as an interaction-driven perspective between business, society, and technology. Electronic Markets, 2022, 32, 629-644.	4.4	81
2	Extracting Decision Dependencies andÂDecision Logic fromÂText Using Deep Learning Techniques. Lecture Notes in Business Information Processing, 2022, , 349-361.	0.8	4
3	Investigating public intention to use shared mobility in Belgium through a survey. Case Studies on Transport Policy, 2022, 10, 472-484.	1.1	6
4	Consolidating Academic and Practical Guidelines for Digital Transformation. Lecture Notes in Business Information Processing, 2022, , 279-290.	0.8	1
5	Business process redesign towards IoT-enabled context-awareness: the case of a Chinese bulk port. Business Process Management Journal, 2022, 28, 656-683.	2.4	6
6	Decisions, advice and explanation: an overview and research agenda. , 2021, , .		10
7	An Overview of Methods for Acquiring and Generating Decision Models. Lecture Notes in Computer Science, 2021, , 200-208.	1.0	0
8	The Impact of Online Delivery Services on the Financial Performance of Restaurants. , 2021, , .		5
9	Preface to the Special Issue on Process Querying and Declarative, Decision and Hybrid Approaches to Processes 2019. Journal on Data Semantics, 2021, 10, 107.	2.0	0
10	Automatic Generation of Intelligent Chatbots from DMN Decision Models. Lecture Notes in Computer Science, 2021, , 142-157.	1.0	2
11	Deep Learning for the Identification of Decision Modelling Components from Text. Lecture Notes in Computer Science, 2021, , 158-171.	1.0	3
12	From decision knowledge to e-government expert systems: the case of income taxation for foreign artists in Belgium. Knowledge and Information Systems, 2020, 62, 2011-2028.	2.1	6
13	Recommendations for enhancing the usability and understandability of process mining in healthcare. Artificial Intelligence in Medicine, 2020, 109, 101962.	3.8	32
14	Fraud Detection of Bulk Cargo Theft in Port Using Bayesian Network Models. Applied Sciences (Switzerland), 2020, 10, 1056.	1.3	12
15	Text2Dec: Extracting Decision Dependencies from Natural Language Text for Automated DMN Decision Modelling. Lecture Notes in Business Information Processing, 2020, , 367-379.	0.8	11
16	Cross-language Keyword Analysis of Digital Transformation for Business. Lecture Notes on Data Engineering and Communications Technologies, 2020, , 67-80.	0.5	0
17	Benchmarking Stacking Against Other Heterogeneous Ensembles in Telecom Churn Prediction. , 2020, , .		0
18	Holistic discovery of decision models from process execution data. Knowledge-Based Systems, 2019, 183, 104866.	4.0	17

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19	Towards a comprehensive understanding of the context concepts in context-aware business processes. , 2019, , .		8
20	Context-Aware BPM Using IoT-Integrated Context Ontologies and IoT-Enhanced Decision Models. , 2019, , .		15
21	Complexity metrics for DMN decision models. Computer Standards and Interfaces, 2019, 65, 15-37.	3.8	14
22	Measuring the Complexity of DMN Decision Models. Lecture Notes in Business Information Processing, 2019, , 514-526.	0.8	3
23	The value of big data for credit scoring: Enhancing financial inclusion using mobile phone data and social network analytics. Applied Soft Computing Journal, 2019, 74, 26-39.	4.1	111
24	Closing the Gap Between Experts and Novices Using Analytics-as-a-Service: An Experimental Study. Business and Information Systems Engineering, 2019, 61, 679-693.	4.0	2
25	A DMN-Based Method for Context-Aware Business Process Modeling Towards Process Variability. Lecture Notes in Business Information Processing, 2019, , 176-188.	0.8	3
26	What Roles Do Decisions Play in Context-aware Business Process Management?., 2019,,.		3
27	Developing a Modelling and Mining Framework for Integrated Processes and Decisions. Lecture Notes in Computer Science, 2018, , 259-269.	1.0	5
28	Time series for early churn detection: Using similarity based classification for dynamic networks. Expert Systems With Applications, 2018, 106, 55-65.	4.4	36
29	Predicting tax avoidance by means of social network analytics. Decision Support Systems, 2018, 108, 13-24.	3.5	23
30	Augmenting processes with decision intelligence: Principles for integrated modelling. Decision Support Systems, 2018, 107, 1-12.	3.5	40
31	Profit-Based Model Selection for Customer Retention Using Individual Customer Lifetime Values. Big Data, 2018, 6, 53-65.	2.1	15
32	Predicting interpurchase time in a retail environment using customer-product networks: An empirical study and evaluation. Expert Systems With Applications, 2018, 104, 22-32.	4.4	7
33	Discovering hidden dependencies in constraint-based declarative process models for improving understandability. Information Systems, 2018, 74, 40-52.	2.4	19
34	A Data-driven Fault Prediction Method for LNG Engine City Buses. , 2018, , .		1
35	Redesigning Processes for Decision-Awareness: Strategies for Integrated Modelling. , 2018, , .		3
36	Towards Improving Context Interpretation in the IoT Paradigm. , 2018, , .		9

3

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37	Challenges in Refactoring Processes to Include Decision Modelling. Lecture Notes in Business Information Processing, 2018, , 529-541.	0.8	10
38	A Case-Based Inquiry into the Decision Model and Notation (DMN) and the Knowledge Base (KB) Paradigm. Lecture Notes in Computer Science, 2018, , 248-263.	1.0	6
39	Defining analytics maturity indicators: A survey approach. International Journal of Information Management, 2017, 37, 114-124.	10.5	79
40	Social network analytics for churn prediction in telco: Model building, evaluation and network architecture. Expert Systems With Applications, 2017, 85, 204-220.	4.4	64
41	Decision Mining in a Broader Context: An Overview of the Current Landscape and Future Directions. Lecture Notes in Business Information Processing, 2017, , 197-207.	0.8	14
42	Towards a Holistic Discovery of Decisions in Process-Aware Information Systems. Lecture Notes in Computer Science, 2017, , 183-199.	1.0	22
43	A Service-Oriented Architecture Design of Decision-Aware Information Systems: Decision as a Service. Lecture Notes in Computer Science, 2017, , 353-361.	1.0	9
44	Model Checking of Mixed-Paradigm Process Models in a Discovery Context. Lecture Notes in Business Information Processing, 2017, , 74-86.	0.8	1
45	A comparative study of social network classifiers for predicting churn in the telecommunication industry. , 2016, , .		6
46	On the gap between reality and registration: a business event analysis classification framework. Information Technology and Management, 2016, 17, 393-410.	1.4	3
47	Gamification of Declarative Process Models for Learning and Model Verification. Lecture Notes in Business Information Processing, 2016, , 432-443.	0.8	7
48	A guide for the application of analytics on healthcare processes: A dynamic view on patient pathways. Computers in Biology and Medicine, 2016, 77, 125-134.	3.9	28
49	Improving Understandability of Declarative Process Models by Revealing Hidden Dependencies. Lecture Notes in Computer Science, 2016, , 83-98.	1.0	16
50	Exploring business process modelling paradigms and design-time to run-time transitions. Enterprise Information Systems, 2016, 10, 790-813.	3.3	6
51	Enabling flexible location-aware business process modeling and execution. Decision Support Systems, 2016, 83, 1-9.	3.5	21
52	Mixed-Paradigm Process Modeling with Intertwined State Spaces. Business and Information Systems Engineering, 2016, 58, 19-29.	4.0	27
53	Modeling and Enacting Enterprise Decisions. Lecture Notes in Business Information Processing, 2016, , 169-180.	0.8	5
54	Transformational Issues of Big Data and Analytics in Networked Business. MIS Quarterly: Management Information Systems, 2016, 40, 807-818.	3.1	170

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55	A Full R/I-Net Construct Lexicon for Declare Constraints. SSRN Electronic Journal, 2015, , .	0.4	5
56	Context-adaptive Petri nets: Supporting adaptation for the execution context. Expert Systems With Applications, 2015, 42, 9307-9317.	4.4	29
57	Fusion Miner: Process discovery for mixed-paradigm models. Decision Support Systems, 2015, 77, 123-136.	3.5	28
58	Declarative business process modelling: principles and modelling languages. Enterprise Information Systems, 2015, 9, 161-185.	3.3	46
59	Towards Location-Aware Process Modeling and Execution. Lecture Notes in Business Information Processing, 2015, , 186-197.	0.8	0
60	Extending CPN Tools with Ontologies to Support the Management of Context-Adaptive Business Processes. Lecture Notes in Business Information Processing, 2015, , 198-209.	0.8	1
61	Multi-Paradigm Process Mining: Retrieving Better Models by Combining Rules and Sequences. SSRN Electronic Journal, 2014, , .	0.4	2
62	Making Business Environments Smarter: A Context-Adaptive Petri Net Approach. , 2014, , .		1
63	Declarative process discovery with evolutionary computing. , 2014, , .		2
64	Uncovering the Relationship Between Event Log Characteristics and Process Discovery Techniques. Lecture Notes in Business Information Processing, 2014, , 41-53.	0.8	5
65	Acquiring logistics process intelligence: Methodology and an application for a Chinese bulk port. Expert Systems With Applications, 2014, 41, 195-209.	4.4	55
66	Monitoring care processes in the gynecologic oncology department. Computers in Biology and Medicine, 2014, 44, 88-96.	3.9	44
67	A dynamic understanding of customer behavior processes based on clustering and sequence mining. Expert Systems With Applications, 2014, 41, 4648-4657.	4.4	25
68	Determining Process Model Precision and Generalization with Weighted Artificial Negative Events. IEEE Transactions on Knowledge and Data Engineering, 2014, 26, 1877-1889.	4.0	60
69	Business Process Management Workshops. Lecture Notes in Business Information Processing, 2014, , .	0.8	6
70	A Process Mining-Based Investigation of Adverse Events in Care Processes. Health Information Management Journal, 2014, 43, 16-25.	0.9	26
71	Event-Based Real-Time Decomposed Conformance Analysis. Lecture Notes in Computer Science, 2014, , 345-363.	1.0	24
72	Multi-paradigm Process Mining: Retrieving Better Models by Combining Rules and Sequences. Lecture Notes in Computer Science, 2014, , 446-453.	1.0	6

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73	Clinical Pathway Analytics. Journal of Information Technology Research, 2014, 7, 12-26.	0.3	1
74	Investigating Service Behavior Variance in Port Logistics from a Process Perspective. Lecture Notes in Business Information Processing, 2014, , 318-329.	0.8	0
75	Getting a Grasp on Clinical Pathway Data: An Approach Based on Process Mining. Lecture Notes in Computer Science, 2013, , 22-35.	1.0	12
76	Active Trace Clustering for Improved Process Discovery. IEEE Transactions on Knowledge and Data Engineering, 2013, 25, 2708-2720.	4.0	128
77	Healthcare Analytics: Examining the Diagnosis–treatment Cycle. Procedia Technology, 2013, 9, 996-1004.	1.1	16
78	Business Rule Patterns and Their Application to Process Analytics. , 2013, , .		2
79	A comprehensive investigation of the applicability of process mining techniques for enterprise risk management. Computers in Industry, 2013, 64, 464-475.	5.7	24
80	Comprehensive rule-based compliance checking and risk management with process mining. Decision Support Systems, 2013, 54, 1357-1369.	3.5	60
81	A comprehensive benchmarking framework (CoBeFra) for conformance analysis between procedural process models and event logs in ProM. , 2013, , .		26
82	SeDeS 2013 PC Co-Chairs Message. Lecture Notes in Computer Science, 2013, , 555-555.	1.0	0
83	Leveraging process discovery with trace clustering and text mining for intelligent analysis of incident management processes. , 2012, , .		25
84	A Comprehensive Framework for the Application of Process Mining in Risk Management and Compliance Checking. SSRN Electronic Journal, 2012, , .	0.4	0
85	A multi-dimensional quality assessment of state-of-the-art process discovery algorithms using real-life event logs. Information Systems, 2012, 37, 654-676.	2.4	169
86	Process Mining Manifesto. Lecture Notes in Business Information Processing, 2012, , 169-194.	0.8	546
87	Rule-Based Business Process Mining: Applications for Management. Advances in Intelligent Systems and Computing, 2012, , 273-282.	0.5	3
88	Improved Artificial Negative Event Generation to Enhance Process Event Logs. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2012, , 254-269.	0.2	8
89	Modeling Decision Structures and Dependencies. Lecture Notes in Computer Science, 2012, , 525-533.	1.0	3
90	SeDeS 2012 PC Co-chairs Message. Lecture Notes in Computer Science, 2012, , 484-484.	1.0	0

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91	A Prototype Tool for the Event-Driven Enforcement of SBVR Business Rules. Lecture Notes in Business Information Processing, 2012, , 446-457.	0.8	3
92	A robust F-measure for evaluating discovered process models. , 2011, , .		64
93	Software Defect Prediction Based on Association Rule Classification. SSRN Electronic Journal, 2011, , .	0.4	11
94	An empirical evaluation of the comprehensibility of decision table, tree and rule based predictive models. Decision Support Systems, 2011, 51, 141-154.	3.5	257
95	Performance of classification models from a user perspective. Decision Support Systems, 2011, 51, 782-793.	3.5	91
96	Process discovery in event logs: An application in the telecom industry. Applied Soft Computing Journal, 2011, 11, 1697-1710.	4.1	55
97	A Critical Evaluation Study of Model-Log Metrics in Process Discovery. Lecture Notes in Business Information Processing, 2011, , 158-169.	0.8	12
98	An Exploratory Approach to Process Lifecycle Transitions from a Paradigm-Based Perspective. Lecture Notes in Business Information Processing, 2011, , 178-185.	0.8	3
99	SWWS 2011, MONET 2011 and SeDeS 2011 PC Co-chairs' Message. Lecture Notes in Computer Science, 201, 380-381.	l l _{r.o}	O
100	Credit rating prediction using Ant Colony Optimization. Journal of the Operational Research Society, 2010, 61, 561-573.	2.1	49
101	50 years of data mining and OR: upcoming trends and challenges. Journal of the Operational Research Society, 2009, 60, S16-S23.	2.1	54
102	Predicting going concern opinion with data mining. Decision Support Systems, 2008, 45, 765-777.	3.5	91
103	Minerva: Sequential Covering for Rule Extraction. IEEE Transactions on Systems, Man, and Cybernetics, 2008, 38, 299-309.	5.5	17
104	Rule Extraction from Support Vector Machines: An Overview of Issues and Application in Credit Scoring. Studies in Computational Intelligence, 2008, , 33-63.	0.7	53
105	Rule-based business process modelling and enactment. International Journal of Business Process Integration and Management, 2008, 3, 194.	0.2	22
106	A Data Miner's Approach to Country Corruption Analysis. Studies in Computational Intelligence, 2008, , 227-247.	0.7	1
107	Process Mining as First-Order Classification Learning on Logs with Negative Events. Lecture Notes in Computer Science, 2008, , 42-53.	1.0	12
108	A Vocabulary and Execution Model for Declarative Service Orchestration. Lecture Notes in Computer Science, 2008, , 496-501.	1.0	3

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109	Semantic Decision Tables: Self-organizing and Reorganizable Decision Tables. Lecture Notes in Computer Science, 2008, , 434-449.	1.0	2
110	Classification With Ant Colony Optimization. IEEE Transactions on Evolutionary Computation, 2007, 11, 651-665.	7.5	353
111	EM-BrA2CE v0.1: A Vocabulary and Execution Model for Declarative Business Process Modeling. SSRN Electronic Journal, 2007, , .	0.4	19
112	A new approach for measuring rule set consistency. Data and Knowledge Engineering, 2007, 63, 167-182.	2.1	7
113	Forecasting and analyzing insurance companies' ratings. International Journal of Forecasting, 2007, 23, 513-529.	3.9	44
114	Inferring descriptive and approximate fuzzy rules for credit scoring using evolutionary algorithms. European Journal of Operational Research, 2007, 177, 540-555.	3.5	63
115	Comprehensible credit scoring models using rule extraction from support vector machines. European Journal of Operational Research, 2007, 183, 1466-1476.	3 . 5	353
116	Specifying Process-Aware Access Control Rules in SBVR. , 2007, , 39-52.		17
117	Declarative Process Modeling with Business Vocabulary and Business Rules. , 2007, , 603-612.		21
118	A Comprehensive Assessment of Modern Information Retrieval Tools., 2007,, 263-275.		1
119	Using Rule Extraction to Improve the Comprehensibility of Predictive Models. SSRN Electronic Journal, 2006, , .	0.4	43
120	Failure prediction with self organizing maps. Expert Systems With Applications, 2006, 30, 479-487.	4.4	60
121	A process model to develop an internal rating system: Sovereign credit ratings. Decision Support Systems, 2006, 42, 1131-1151.	3.5	64
122	Evaluation of Information Retrieval and Text Mining Tools on Automatic Named Entity Extraction. Lecture Notes in Computer Science, 2006, , 666-667.	1.0	2
123	Ant-Based Approach to the Knowledge Fusion Problem. Lecture Notes in Computer Science, 2006, , 84-95.	1.0	20
124	Designing Compliant Business Processes with Obligations and Permissions. Lecture Notes in Computer Science, 2006, , 5-14.	1.0	141
125	Comprehensible Credit-Scoring Knowledge Visualization Using Decision Tables and Diagrams. , 2006, , 109-115.		5
126	Country Corruption Analysis with Self Organizing Maps and Support Vector Machines. Lecture Notes in Computer Science, 2006, , 103-114.	1.0	10

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127	ITER: An Algorithm for Predictive Regression Rule Extraction. Lecture Notes in Computer Science, 2006, , 270-279.	1.0	16
128	Intelligent Information Retrieval Tools for Police. Lecture Notes in Computer Science, 2006, , 664-665.	1.0	0
129	Knowledge Integration in Information Systems Education Through an (Inter)active Platform of Analysis and Modelling Case Studies. Lecture Notes in Computer Science, 2006, , 294-303.	1.0	0
130	Filter- versus wrapper-based feature selection for credit scoring. International Journal of Intelligent Systems, 2005, 20, 985-999.	3.3	43
131	A Comprehensible SOM-Based Scoring System. Lecture Notes in Computer Science, 2005, , 80-89.	1.0	1
132	Neural network survival analysis for personal loan data. Journal of the Operational Research Society, 2005, 56, 1089-1098.	2.1	88
133	Benchmarking Least Squares Support Vector Machine Classifiers. Machine Learning, 2004, 54, 5-32.	3.4	596
134	Bayesian network classifiers for identifying the slope of the customer lifecycle of long-life customers. European Journal of Operational Research, 2004, 156, 508-523.	3.5	106
135	Decision diagrams in machine learning: an empirical study on real-life credit-risk data. Expert Systems With Applications, 2004, 27, 257-264.	4.4	22
136	Building Intelligent Credit Scoring Systems Using Decision Tables. , 2004, , 131-137.		10
137	Improving the Scalability of Rule Base Verification Using Binary Decision Diagrams: An Empirical Study. Lecture Notes in Computer Science, 2004, , 381-395.	1.0	1
138	Efficient Rule Base Verification Using Binary Decision Diagrams. Lecture Notes in Computer Science, 2004, , 445-454.	1.0	5
139	Decision Diagrams in Machine Learning: An Empirical Study on Real-Life Credit-Risk Data. Lecture Notes in Computer Science, 2004, , 395-397.	1.0	0
140	Using Neural Network Rule Extraction and Decision Tables for Credit-Risk Evaluation. Management Science, 2003, 49, 312-329.	2.4	384
141	Benchmarking state-of-the-art classification algorithms for credit scoring. Journal of the Operational Research Society, 2003, 54, 627-635.	2.1	653
142	Comparing a genetic fuzzy and a neurofuzzy classifier for credit scoring. International Journal of Intelligent Systems, 2002, 17, 1067-1083.	3.3	36
143	Bayesian neural network learning for repeat purchase modelling in direct marketing. European Journal of Operational Research, 2002, 138, 191-211.	3.5	172
144	COMPARING A GENETIC FUZZY AND A NEUROFUZZY CLASSIFIER FOR CREDIT SCORING. , 2002, , .		4

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145	Knowledge discovery in a direct marketing case using least squares support vector machines. International Journal of Intelligent Systems, 2001, 16, 1023-1036.	3.3	53
146	Wrapped input selection using multilayer perceptrons for repeat-purchase modeling in direct marketing. Intelligent Systems in Accounting, Finance and Management, 2001, 10, 115-126.	2.8	19
147	Validation and verification of knowledge-based systems: report on EUROVAV99. Knowledge Engineering Review, 2000, 15, 187-196.	2.1	13
148	Improving a neuro-fuzzy classifier using exploratory factor analysis. International Journal of Intelligent Systems, 2000, 15, 785-800.	3.3	2
149	A synthesis of fuzzy rule-based system verification. Fuzzy Sets and Systems, 2000, 113, 253-265.	1.6	8
150	Illustrating Knowledge Base Restructuring and Verification in a Real World Application. , 1999, , 177-191.		1
151	A tool-supported approach to inter-tabular verification. Expert Systems With Applications, 1998, 15, 277-285.	4.4	26
152	Incorporating fuzziness in the classical decision table formalism. International Journal of Intelligent Systems, 1998, 11, 879-891.	3.3	3
153	An initial comparison of a fuzzy neural classifier and a decision tree based classifier. Expert Systems With Applications, 1998, 15, 375-381.	4.4	8
154	An illustration of verification and validation in the modelling phase of KBS development. Data and Knowledge Engineering, 1998, 27, 337-352.	2.1	42
155	Modelling decision tables from data. Lecture Notes in Computer Science, 1998, , 412-413.	1.0	7
156	Extending a tabular knowledge-based framework with feature selection. Expert Systems With Applications, 1997, 13, 109-119.	4.4	5
157	Integrating statistical audit evidence with belief function theory. Lecture Notes in Computer Science, 1996, , 1-14.	1.0	1
158	Integration of the decision table formalism with a relational database environment. Information Systems, 1995, 20, 595-616.	2.4	14
159	The Definition and Diffusion of Expert Systems: An Empirical Survey of Belgian External Audit Firms. Intelligent Systems in Accounting, Finance and Management, 1995, 4, 205-220.	2.8	0
160	From decision tables to expert system shells. Data and Knowledge Engineering, 1994, 13, 265-282.	2.1	43
161	Developing legal knowledge based systems using decision tables. , 1993, , .		3
162	A note on English for decision tables considered harmful and the nested IF-THEN-ELSE. ACM SIGPLAN Notices, 1985, 20, 45-47.	0.2	1

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163	Illustration of a decision table tool for specifying and implementing knowledge based systems., 0,,.		9
164	Restructuring and optimizing knowledge representations. , 0, , .		1
165	Restructuring and simplifying rule bases. , 0, , .		3
166	Clustering knowledge in tabular knowledge bases. , 0, , .		5
167	Bankruptcy prediction with least squares support vector machine classifiers. , 0, , .		22
168	Comprehensible Credit Scoring Models using Rule Extraction from Support Vector Machines. SSRN Electronic Journal, 0, , .	0.4	6
169	An Improved Process Event Log Artificial Negative Event Generator. SSRN Electronic Journal, 0, , .	0.4	10
170	Advances in Rule-Based Process Mining: Applications for Enterprise Risk Management and Auditing. SSRN Electronic Journal, 0, , .	0.4	5
171	A Scoping Review of the Digital Transformation Literature Using Scientometric Analysis. Business Information Systems, 0, , 281-292.	0.0	4
172	Designing a Comprehensive Understanding of Digital Transformation and its Impact., 0,,.		20
173	A New Approach for Discovering Business Process Models from Event Logs. SSRN Electronic Journal, 0, , .	0.4	5
174	Leveraging Process Discovery with Trace Clustering and Text Mining for Intelligent Analysis of Incident Management Processes. SSRN Electronic Journal, 0, , .	0.4	1
175	An Illustration of Five Principles for Integrated Process and Decision Modelling (5PDM). SSRN Electronic Journal, 0, , .	0.4	9
176	On Replaying Process Execution Traces Containing Positive and Negative Events. SSRN Electronic Journal, 0, , .	0.4	2